An-Najah National University
Faculty of Graduate Studies

THE EFFECT OF AUDIT COMMITTEE CHARACTERISTICS ON EARNINGS MANAGEMENT PRACTICES: AN EMPIRICAL STUDY ON INDUSTRIAL COMPANIES EVIDENCE FROM ARAB COUNTRIES

By
Jehad Nathir Farouq Al-Selkhi

Supervisors
Dr. Muiz Abu Alia
Prof. Abdul Naser Nour

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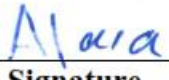
This Thesis was defended successfully on 10/03/2024 and approved by:

Dr. Muiz Abu Alia	
Supervisor	**Signature**
Prof. Dr. Abdul Naser Nour	
Co-Supervisor	**Signature**
Dr. Fadi Shehadeh	
External Examiner	**Signature**
Dr. Aladdin Dwekat	
Internal Examiner	**Signature**

Dedication

I write this dedication with a heart full of gratitude and appreciation as I proceed to complete my master's thesis.

A greeting of honor and pride to my dear homeland, a greeting that carries within it the loyalty of individuals and the joy of belonging. In every day that shines I wish my beloved homeland more peace and prosperity. I dedicate my research to my dear homeland.

I dedicate my research to those who loved science and encouraged me since my childhood, my grandparents, Teacher Farouq Al-Selkhi & Hamdullah Al-Selkhi, may their souls rest in peace.

To the fountain of tenderness and overflowing heart, to the one who gave inexhaustibly, my grandmothers, may God bless their life.

To the one who instilled in me the love of science and supported me at all stages, since my eyes saw the light of life, my beloved parents, Nathir & Kawthar, may God bless their lives.

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To the kind and warm heart of my beloved brother Emad.

To the tender heart, my beloved sisters, Huda & Zina.

To all dear friends and relatives inside and outside the borders of the country.

To everyone who wished me well.

To all those from whom I have received advice, support and assistance.

I dedicate to you the fruit of my work and my humble thesis.

Researcher
Jehad Nathir Farouq Al-Selkhi

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Researcher
Jehad Nathir Farouq Al-Selkhi

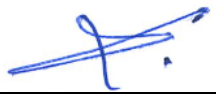
Declaration

I, the undersigned, declare that I submitted the thesis entitled:

THE EFFECT OF AUDIT COMMITTEE CHARACTERISTICS ON EARNINGS MANAGEMENT PRACTICES: AN EMPIRICAL STUDY ON INDUSTRIAL COMPANIES EVIDENCE FROM ARAB COUNTRIES

I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name **Jehad Nathir Farouq Al-Selkhi**

Signature: 

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List of Contents

List of Tables

List of Figures

List of Appendices

THE EFFECT OF AUDIT COMMITTEE CHARACTERISTICS ON EARNINGS MANAGEMENT PRACTICES: AN EMPIRICAL STUDY ON INDUSTRIAL COMPANIES EVIDENCE FROM ARAB COUNTRIES

By
Jehad Nathir Farouq Al-Selkhi
Supervisors
Dr. Muiz Abu Alia
Prof. Abdel Nasser Nour

Abstract

The purpose of this study is to explore the influence of audit committee characteristics on the practices of earnings management. So, the study independent variables are the audit committee characteristics including independence, gender diversity, frequency of meetings, experience, and size. The study is a quantitative one that uses the descriptive analytical approach to examine its hypotheses based on the data that belongs to a sample consists of the industrial companies listed on the stock exchanges of Palestine, Jordan, Qatar and Kuwait, subject to the data availability during the study period from 2016 to 2021. As a result, the data of 76 companies for six years totaling 456 observations, was considered in the study analyses. This data was obtained from the annual reports of these companies available at the official websites of stock exchanges and the companies.

Fixed effects and random effects linear regression were used to examine the effect of audit committee characteristics on earnings management. The most important findings reveal that gender diversity, the frequency of audit committee meetings, and the experience of audit committee members have a negative statistically significant effect on earnings management behavior. Implying that earnings management behavior by the companies included in the study sample decreases as gender diversity, the frequency of meetings, and the experience of audit committee members increase. Furthermore, the results show a positive significant effects of audit committee member size and operating cash flow on earnings management behavior. This indicates that earnings management increases when audit committee member size and cash flows from operating activities increase.

The study concludes that there are shortcomings in audit committees that may not perform their role efficiently, especially in depressing earnings management. This may be due to

non-compliance with corporate governance rules and corporate laws. Consequently, the sample companies must adhere to applying the corporate governance code and corporate laws, especially with regard to the independence of the audit committee and the size of the audit committee. A major limitation of the study is the unavailability of data on certain characteristics of audit committees. Consequently, important factors such as the legal qualifications of audit committee members were disregarded. Future studies could expand the research by including additional characteristics such as the age and remuneration of committee members.

Keywords: Corporate Governance, Audit Committee Characteristics, Modified Jones Model, Public Industrial Companies, Arab Countries.

Chapter One

The General Framework of the Study

1.1 Introduction

Companies purpose to keep growing and developing can be achieved through good and new investments financed by investors (Abdeljawad et al., 2023). This requires the availability of investors' confidence and the safe and stable business environment (Oroud, 2019). Following the global crises and the collapse of large companies, many questions were raised about the extent to which the rights of the companies' shareholders are protected, and also about the role that the financial reporting plays (Alhassan et al., 2019). Enron provides a good example of how management exploits the power it possesses to achieve its interests at the expense of shareholders, by resorting to manipulation of the financial statements through dubious accounting practices, and with collusion of the external auditor, Arthur Anderson (Al Manaseer et al., 2012). As a result, companies, and financial markets in general, lost investors' confidence which required urgent and serious intervention by the regulators (Galal et al., 2022). Efficient corporate governance practices and high-quality financial reporting and external auditing were emphasized. Accordingly, new laws and regulation such as Oxley Act were enacted and major reviews of accounting standards were conducted, with the purpose of retrieving the lost confidence (Alqatamin, 2018).

Considering the agency problem, corporate governance practices are supposed to provide a high level of protection for the interests of shareholders. These practices control the management decision-making not oriented to the stewardship for the rights of the shareholders (Bhasin & Shaikh, 2012). Corporate governance requires the adoption and the availability of preferred practices and characteristics related to the board of directors. Among the important corporate governance practices is the audit committee role in controlling and supervising the financial reporting and auditing process and the relationship between the board and the external audit, in a way that ensures the availability of high-quality information, and thus reduce the information asymmetry (Nour, Nour, Alqaraleh, & Al-Attar, 2020; Mishra & Malhotra, 2016). Audit committees have a strong and obvious contribution in monitoring the management decisions in terms of financial reporting (Nelwan & Tansuria, 2019). However, audit committee must be efficient to be

able to perform its mission. Therefore, characteristics refer to it and its members qualifications must be ensured (Galal et al., 2022).

One of the most important financial reporting issues that should be followed up by the audit committee is the earnings management practiced by the managers. Earnings management is used by companies to manage their profits, either for the purpose of the company or opportunistically for their personal interests (Abu Alia et al., 2019). Improper earnings management is considered as one of the most important areas of interest as it is designed to mislead and distort a company's actual financial performance, and thus reducing the financial reporting credibility and quality, leading to information inconsistencies (Klein, 2002). Accordingly, effective decision-making by investors and other stakeholders and efficient functioning of capital markets are prevented (Mishra & Malhotra, 2016). Even though the practice of earnings management is partially legal, it is unethical because of its impact on the credibility of the company and the capital market, and thus influencing user's decisions (Sudarman & Hidayat, 2019) and mostly the main purpose of management is to mislead stakeholders. Therefore, reducing the managers earnings management practices requires the adoption of efficient corporate governance mechanisms. (Zalata et al., 2018). As we have already explained, the audit committee is one of the fundamental elements of corporate governance, as it plays a supervisory and control role in the company, providing advice, besides following up on issues related to financial and accounting standards, and supervising the audit of financial statements (Abu Alia & Awwad, 2022).

In the light of the foregoing, and consider the importance of the AC's role in overseeing and supervising the board. The current study aims to determine to what extent the characteristics of the audit committee (independence, gender diversity, frequency of meetings, expertise, and size of the AC) influence earnings management in industrial companies listed on the exchanges of four emerging countries that include the Palestine Exchange (PEX), the Amman Stock Exchange (ASE), the Qatar Stock Exchange (QSE), and the Kuwait Stock Exchange (KSE).

1.2 Problem Statement

The role of the audit committee has increased nowadays, and hence the responsibilities of the members of this committee have increased significantly (Galal et al., 2022). Today, companies operate in an environment fraught with high-risks, which is why these companies are subject to intense scrutiny. As public awareness of corporate governance issues continues to increase, AC members should be more diligent in performing their duties (Lary & Taylor, 2012). Directors of companies may engage in certain practices that may lead to poor and incorrect decision-making by stakeholders, thus providing misleading information and reports with low quality standards as an accurate (Abu Alia et al., 2020). One practice that these companies can adopt is the EM practice. However, this type of practice does not reflect the company's actual financial statements. EM can be legal if the accounting decisions made are in accordance with generally accepted accounting principles (GAAP). However, Earnings management activities may be illegal if they are too aggressive and violate GAAP (Rajeevan & Ajward, 2020). For management, it may have accounting options to handle EM, either conservative accounting or fraudulent accounting. However, fraudulent accounting is an option that violates GAAP (Inaam & Khamoussi, 2016).

Monitoring procedures through agency theory aim to achieve a balance between shareholders and managers and to reduce conflicts of interest arising from opportunistic behavior by managers (Allam, 2018). Earnings management issued by management deliberately aims to manipulate financial reports in order to influence the decisions of certain stakeholders and mislead them (Ayemere & Elijah, 2015). The AC's are fundamental bodies of Agency Theory, through which it is confirmed that the management works to expand and enhance the wealth of shareholders in addition to that it works to reduce information asymmetry, which contributes to solving and reducing agency problems (Abu Alia et al., 2020). So, stakeholders can have a significant impact on some financial and operational decisions, and from this point of view, according to stakeholder theory, which states that managers must consider all the needs of the stakeholders, not just those of the shareholders, as laid out in the agency theory (Ross & Crossan, 2012). Therefore, the opportunistic behavior of some managers must be controlled because they deceive interested parties such as investors, creditors and shareholders when making their decisions (Nwanji & Howell, 2007). This behavior,

pursued by some executives, can later lead to a loss of stakeholder trust in the company, which in turn can damage its reputation and increase cost of capital (Alia & AbuSarees, 2023).

Companies face a variety of issues that may be fraught with high-risks and may damage stakeholders and affect their decisions. Therefore, it is important to have regulatory bodies that deter these risks and maintain the rights of stakeholders (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). Some companies use EM behavior to influence financial reports to mislead stakeholders in order to achieve specific gains. (Abu Alia et al., 2020). Which could encourage regulators to establish a high-level audit committee based on deterring such risks, especially with increased awareness of corporate governance issues. Improving audit quality will lead to improved quality of financial reporting, as auditors are responsible for making independent judgments about the fairness of financial statements (Egwanwor & Thomas, 2022). To summarize, earnings management is considered a common phenomenon across companies and industries. It distorts earnings quality and paints a false picture of a company's financial performance (Alia, Asmar & Ali, 2023). This practice actually harms the interests of shareholders and violates corporate governance principles. Actually, corporate accounting fraud has its roots in a pervasive earnings management culture. In this regard, audit committees represent a popular corporate governance tool that enhances the credibility of financial statements and plays a vital role in preventing the occurrence of earnings management (Abu Alia et al., 2020). Many researchers argue that when more audit is applied, the information asymmetry between shareholders and managers decreases (Galal et al., 2022; Al-Shaer et al., 2017; Alhassan et al., 2019). However, it is unclear in the context of the emerging countries of the study sample whether any of the characteristics of the AC will lead to the occurrence of EM. On the other hand, avoiding litigation risk is key to maintaining high audit quality, as it is closely related to information quality (Inaam & Khamoussi, 2016). In light of this, we ask whether the characteristics of the AC influence earnings management behavior in industrial companies in the Emerging Countries?

1.3 Importance of the Study

This study works to verify the effectiveness of the AC in influencing the EM practices in the industrial companies listed on the (PEX), the (ASE), the (QSE), and the (KSE). Studying the audit committee characteristics and its impact on earnings management practices is very important for many reasons. As we know, earnings management refers to the deliberate manipulation of financial information by management of companies to achieve their personal interest (Abdeljawad & Abu Alia, 2023). However, the audit committee, as a key component of corporate governance, plays a vital role in overseeing financial reporting and ensuring its accuracy (Abu Alia et al., 2020). So, understanding the characteristics of the audit committee sheds light on the effectiveness of corporate governance mechanisms. An effective audit committee is also essential for maintaining transparency and integrity in financial reporting, which, in turn, contributes to build confidence among stakeholders. Thus, studying the relationship between audit committee characteristics and earnings management contributes to a more stable and reliable financial environment. Especially, unsupervised earnings management practices distort financial markets, leading to deceive users of resources and increase market volatility. Actually, this study is considered one of the few studies that link the most important characteristics of audit committees and earnings management practices in the industrial sector, which were conducted in Palestine, Jordan, Qatar, and Kuwait, as far as the researcher is aware.

For decision-makers and investors, they rely on financial reports to make rational decisions (Alia, Amarneh, & Abdeljawd, 2023). Thus, by examining audit committee characteristics, researchers can evaluate its ability to limit earnings management practices. This information is valuable for investors who seek to ensure that financial statements accurately reflect the firm's performance. On the other hand, a reliable audit committee helps build and maintain confidence among stakeholders, including shareholders, employees, customers, and the broader community (Abu Alia et al., 2020). This confidence is closely linked to the firm's reputation, which can be negatively affected by uncertainties related to earnings management. Moreover, earnings management can be a precursor to financial fraud. However, a strong audit committee can serve as a deterrent to fraudulent activities by implementing effective internal controls and risk mitigation strategies (Fitri & Siswantoro, 2022). Accordingly, studying the audit

committee characteristics helps understand its role in preventing financial mis-management.

Regulators often set guidelines and requirements for audit committees to ensure compliance with accounting standards and ethics. Thus, research in this area helps identify gaps in current regulations and provides insights into potential improvements to enhance the regulatory framework. Furthermore, research in this area also contributes to academic understanding of the dynamics of corporate governance. So, the findings can serve as a basis for future researches and help professionals improve corporate governance structures to address emerging challenges. In summary, examining the audit committee's characteristics and their relationship to earnings management practices is critical to promoting transparency, integrity, and accountability in financial reporting. Insights gained from such research can have profound implications for corporate governance, investor and stakeholder confidence, and the overall stability of financial markets.

1.4 Objectives

The primary goal of this study is to know the extent of the role of ACs in their ability to prevent or mitigate opportunistic behavior and managerial aggression related to profit manipulation by managers.

The following specific objectives associated with this main objective include:

- Knowing the impact of AC characteristics (independence, gender diversity, frequency of meetings, experience and size of the AC) on the EM practices of industrial companies listed on the (PEX), the (ASE), the (QSE), and the (KSE).
- Knowing the extent to which industrial companies apply the characteristics of AC's according to the laws and regulations in force in Palestine, Jordan, Qatar, and Kuwait, focusing on how compliance with established guidelines and regulations contributes to the depressing of earnings management.
- Examine the demographic and professional characteristics of AC members, such as their independence, diversity, meetings, experience and size, to understand how these factors may affect the committee's effectiveness in overseeing financial reporting.

- Analyze the degree of independence within ACs and explore its association with the occurrence and extent of earnings management practices within organizations.
- Examining the impact of the expertise of AC members (especially in areas such as accounting and finance) on financial reporting quality and the mitigation of earnings management practices. Furthermore, examining the size of the audit committee and its potential impact on its ability to effectively oversee financial reporting, specifically examining whether larger or smaller committees show difference in addressing earnings management issues.

Chapter Two

Theoretical Framework, Literature Review, and Hypothesis Development

2.1 Introduction

This section discusses the main related theories and concepts relevant to the topic under discussion, the regulatory and legal landscape of accounting, and looks to how audit committee characteristics affect earnings management practices by examining the impact of the independence, gender, frequency of meetings, expertise, and size of the audit committee. As well as an overview of literature review on the topic. Then, hypotheses are developed accordingly.

2.2 Earnings Management

Managers make great efforts to apply various method aimed at maximizing the company's profits, and in order to satisfy management's interests, earnings management methods may be employed (Singto & Precious, 2021). Earnings management is a complex and controversial topic within the field of accounting and finance. It is defined as a widely studied activity by management to take specific actions to achieve targeted level of profits through manipulation or alteration in financial reports or certain choices of accounting policies (Alia & Barham, 2020). These actions are intended to mislead interested parties about the company's financial and economic performance (Alhassan et al., 2019). However, Akporien (2021) confirms that management intentionally engages in EM to manipulate financial reports, thus misleading decision-makers and taking actions that may adversely affect them. This highlights the ethical and practical implications of earnings management on financial reporting practices.

Earnings management may involve various types: (1) Income smoothing is the act of using accounting methods to mitigate fluctuations in net income over different accounting periods. This strategy is achieved by recognizing revenues or expenses in a way that defers them from one accounting period to another (Aburisheh et al., 2022). The primary goal of income smoothing is to reduce earnings fluctuations from one period to another in order to present a more consistent and stable financial performance as if a company has steady earnings, which can influence how the company is perceived by creditors, investors, and other stakeholders (Alhassan et al., 2019). One key motivation for

companies to implement income smoothing is to reduce the volatility of reported earnings, making the financial performance of the companies appear more reliable and less subject to drastic fluctuations (Alzoubi, 2019). This, in turn, can contribute to enhanced investor confidence and have a positive impact on stock prices.

Companies may intentionally defer the recognition of certain revenue or expenses from one accounting period to another to create a more balanced and predictable revenue model over time (Aburisheh et al., 2022). Although income smoothing can be viewed as a way to demonstrate financial stability, it is worth noting that its use can be controversial. Critics argue that this could lead to a lack of transparency in financial reporting, as it could obscure a company's true economic performance (Alqaraleh & Nour, 2020; Al-Shaer et al., 2017). Additionally, there are ethical considerations, as manipulating accounting methods to smooth earnings may not accurately reflect a company's economic reality. (2) "Big bath" accounting is an accounting strategy in which a company's management team manipulates earnings in a bad year by degrading the earnings, thereby reporting more losses than they actually were, in order to make the future period or year looks better and makes it possible for future results to look more attractive (Galal et al., 2022). The main purpose of this strategy is to create a “bath” of losses in that specific period. By doing this, the firm can set aside reserves for future losses, expenses or liabilities, thus creating a financial cushion to absorb future negative events (Egwanwor & Thomas, 2022). There are some key features included in a "big bath" accounting: First, the timing of expenses: Through this strategy, companies deliberately recognize expenses in a specific period, even if those expenses are not directly related to that period. This allows them to smooth future profits by making subsequent periods appear more profitable. Second, future period benefit: The deliberate overstatement by companies in estimating expenses or losses in the current period enables the company to offset for those losses against future profits. This may lead to a more stable pattern of profits over time. Third, boost future profits: By taking a “big bath” of losses in a single period, firms may set the stage for reporting higher profits in later periods, making their financial performance appear more favorable. Finally, a cushion for future adversity: Firms using the “big bath” strategy may create a financial reserve that serves as a cushion against future uncertainty or adverse economic conditions (Al-Shaer et al., 2017). On the other hand, critics claim that deliberately overemphasizing losses can mislead investors and

stakeholders, because they may not accurately reflect a company's true economic performance (Fitri & Siswantoro, 2022; Chariri & Januarti, 2017). In addition, accounting standards and regulatory bodies often examine these practices to ensure transparency and fair representation in financial reporting in an effort to reduce these practices (Inaam & Khamoussi, 2016).

(3) "Cookie jar" reserves are a strategy in which firms allocate excess reserves during profitable periods and use them to artificially enhance profits in less profitable periods (Akporien, 2021). The primary goals of using “cookie jar” reserves include: (a) Smoothing reported profits: The aim is to create a more stable pattern of reported profits over time, by allocating excess reserves from high profitability periods and using them strategically in less profitable periods, thereby presenting more stable and consistent financial performance. (b) Influencing investor perception: Companies use the Cookie Jar reserves strategy aiming of influencing how investors perceive their financial situation and stability, so that companies create an image of financial consistency and reliability by smoothing out profits and avoiding significant fluctuations, which can positively affect investor confidence (Alzoubi, 2019). Although these goals may provide short-term benefits, but this strategy raises ethical concerns. This strategy can lead to a lack of transparency in financial reports, because it may not accurately represent the true economic performance of a company (Ayemere & Elijah, 2015). In turn, accounting standards and regulatory bodies seek to ensure that financial statements are a fair and accurate representation of a company's financial position (Alkdai & Hanefah, 2012).

There are several methods of earnings management include:

1. Manipulating of accruals: Firms can adjust accruals, such as warranty expenses or provisions for bad debts, to affect reported earnings.
2. Timing of revenue recognition: Acceleration or delay in revenue recognition may impact reported earnings.
3. Classification shifting: is a new form of earnings management that involves a deliberate change in the classification of items within the income statement for the year, removing items from core earnings and assigning for special items to present a more favorable financial position (Yew, 2013).

Understanding the goals behind earnings management sheds light on the motivations for its use in the corporate world. Therefore, we present the general objectives of using earnings management practices, including:

1. Meet analysts' expectations: Companies often manage their earnings to meet or exceed analysts' expectations, which can have a positive impact on stock prices, thus influencing positive reactions from investors.
2. Influence contractual outcomes: Earnings management can be used to achieve specific objectives in debt agreements, executive compensation agreements, or other contractual arrangements.
3. Tax management: By managing revenues, companies can optimize their tax obligations and take advantage of available tax benefits and managing its overall tax liabilities effectively.
4. Maintain share price: Smooth or sustained positive earnings can help maintain or increase a company's share price, which enhances investor confidence and market value (Isa & Farouk, 2018).

However, it is possible to prevent and detect earnings management practices by: First, financial statement analysis: Analysts and auditors use various financial ratios and analytical tools to identify unusual patterns in financial statements. Second, boost corporate governance: Strong corporate governance practices, including effective audit committees, can help prevent and detect earnings management. Third, regulatory oversight: Regulators establish standards and regulations, such as the Sarbanes-Oxley Act, to enhance transparency and prevent unethical financial practices (Galal et al., 2022).

Earnings management raises ethical concerns, including deceptive practices through the manipulation of financial information, leading to the misleading of investors and stakeholders. Companies are expected to adhere to the principles of transparency and accountability to maintain confidence in the financial markets (Setiawan et al., 2020).

The emergence of EM is one of the mechanisms that can lead to accounting scandals (Alzoubi, 2019). Consequently, it poses a serious threat to the company if these types of practices are discovered. This discovery can lead to weak investor confidence in the company's financial reports, unreliability of reported earnings due to biased amounts, and

a failure to reflect the actual performance of the company. Additionally, it is impeding the effective flow of capital in the financial market (Albersmann & Hohenfels, 2017). Accordingly, the presence of earnings management should be reduced or limited in companies where a functioning and effective audit committee is in place (Alhassan et al., 2019). On the other hand, there are many incentives that make management choose to deliberately engage in EM. For example, it may be in order to avoid reporting losses, or money managers and analysts may provide incentives to encourage management to improve the reported performance of profits. This improvement may lead to an increase in the market value of the firm, and thus enhancing the reputation of managers and attracting more investors (Al-Shaer et al., 2017).

The activities of the earnings management practices are complex, ambiguous, and difficult to detect due to the management's ability to manipulate financial reports, in addition to the lack of credibility and transparency towards shareholders and regulatory authorities (Alzoubi, 2019; Abdeljawad & Abu Alia, 2023). The existence of Good Corporate Governance that works to limit the behavior of the practice of earnings management, and this is what the audit committee shows (Nour et al., 2022). Usually, managers resort to tax evasion as a tool in the exercise of EM in order to maximize profits in the short term (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Deslandes et al., 2020). Numerous studies have shown the extent of influence of audit committees and corporate government in general on EM practices (Akporien, 2021; Al Manaseer et al., 2012; Mishra & Malhotra, 2016). Results of Soliman and Ragab (2014) showed that there is an inverse effect of financial expertise and share ownership of audit committee on earnings management, so that the study concludes that share ownership of audit committee and financial expertise enhance the quality of financial reports.

Firm’s adoption of higher audit quality will reduce earnings management practices (Safitri et al., 2018). Yew (2013) indicate that there is a relationship between the size of the AC and earnings management, while no statistically significant relationship was discovered for the other characteristics of the AC, which are the independence, legal experience and financial literacy of the members of the audit committee. On the other hand, the gender of the members of the AC greatly affects the behavior of earnings management, the study shows that females are more careful in the AC because they are more risk-averse and ethical than men (Saona et al., 2019). Umobung and Ibanichuka

(2017) indicate that earnings management occurs more when the company is unable to meet the expectations of investors. However, some literature shows that earnings management behavior has a direct impact on company value and stock return because investors focus on earnings without examining its components in detail (Afza & Nazir, 2014).

2.3 The Regulatory and Legal Landscape of Accounting

In Palestinian context, accounting practices are governed by the Palestinian Association of Certified Public Accountants (PACPA) and the Palestinian Companies Law, so that the Companies Law sets out the requirements for financial reporting and disclosure for companies operating in Palestine (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). For regulatory authority, the Palestinian Capital Market Authority (PCMA) plays a key role in regulating financial markets and overseeing companies' application of accounting standards. On the other hand, Palestine is making efforts to align its accounting practices with the International Financial Reporting Standards (IFRS) to explore the extent of adoption and any challenges may face (Abu Alia et al., 2020). Actually, the challenges may include limited resources, capacity building, and the need to increase awareness of International Accounting Standards. However, opportunities can arise by enhancing transparency to attract foreign investment and promote economic growth, despite the obstacles it may face under the Israeli occupation (Nour et al., 2022; Abdeljawad et al., 2023).

In Jordan, the Jordanian Association of Certified Public Accountants (JACPA) and the Jordanian Companies Law guide accounting practices in the country, so that the Jordan Securities Commission (JSC) supervises the financial reports of publicly traded companies (Abbadi, 2016). For regulatory authority, the (JACPA) is the primary regulatory body responsible for ensuring the integrity and professionalism of the accounting profession (Abu Saleem, 2019).

In 2008, laws establishing an audit committee were issued however on a voluntary basis. Later in 2013, it became mandatory for all companies listed on the stock exchange (Alqatamin, 2018). Jordan has made substantial progress in aligning its accounting practices with IFRS and explore the implications for financial reporting and investments (Alqaraleh & Nour, 2020). Challenges may include the need for continued training and

education, while opportunities could arise from increased harmonization with global standards.

The legal framework of accounting in Qatar is influenced by the Qatar Financial Markets Authority (QFMA) and the Qatar Central Securities Depository (QCSD), so that the Qatar Financial Centre (QFC) also plays a role in drafting financial regulations (Association of Legal Accountants, 2022). The QFMA supervises financial markets and ensures compliance with accounting standards. Qatar has been proactive in adopting IFRS to enhance the credibility of financial reporting and attract international investment. The challenges may involve adapting to rapid economic growth, while opportunities can stem from a country's commitment to global financial standards (Association of Legal Accountants, 2022). In Kuwait, the legal framework was established by the Kuwait Financial Center "Markaz" and the Capital Markets Authority (CMA). The Companies Act and the Commercial Companies Act provide the regulatory foundation for accounting practices. For regulatory authority, the Capital Market Authority is an important regulatory body that oversees accounting practices, financial disclosure and auditing standards (Kuwait Accountants and Auditors Association, 2023). Kuwait has been working towards the alignment of its accounting standards with IFRS, with the aim of achieving greater consistency and transparency. The challenges may include the need for increased enforcement and/or compliance, and opportunities may arise from a more standardized financial reporting system that attracts international investors.

In compliance to the rules stipulated in the Palestinian Corporate Governance Law, issued by the National Governance Committee in 2009, and the corporate governance system in Qatar and Kuwait, companies were mandated to establish an audit committee emanating from the Board of Directors (BOD), consisting of members with independence and both scientific and practical experience (Corporate Governance National Committee, 2009; Corporate Governance System, 2009; Corporate Governance Guide, 2013). The audit committee is one of the basic elements of corporate governance and the board's subcommittees that help control management practices, improve the quality of financial reporting, and reduce audit risk (Abdeljawad et al., 2020). In addition, it is an effective tool to ensure good corporate governance in the organization (Salleh & Haat, 2014). Audit committees can enhance their effectiveness by diligently enforcing laws and adhering to regulatory bodies (Abbadi, 2016). One of the important or critical aspect is ensuring

compliance with accounting standards and financial regulations imposed by regulatory bodies. By keeping up with legal requirements, audit committees contribute to financial transparency and reliability. Furthermore, regular communication and collaboration with regulatory bodies facilitates a proactive approach to compliance, reduces the risk of legal issues and ensures compliance with the latest industry standards (Nour et al., 2022). In addition, an effective audit committee focuses on internal control systems to ensure that the organization's operations comply with legal requirements and best practices such as reviewing and enhancing internal audit processes, risk management procedures and monitoring mechanisms to identify potential issues and address them immediately (Al-Rassas & Kamardin, 2015). Measuring the effectiveness of the audit committee can be achieved by assessing the company's performance and competitiveness, particularly in the face of a dynamic or volatile and uncertain business environment beyond the company's management (Abbadi, 2016). An audit committee can be defined as a sub-committee of the BOD's that creates arrangements for auditing (Galal et al., 2022). The purpose of creating the audit committee is specially to attain a governance structure for public corporations and also the implementation of control procedures to confirm the protection of the interests of stakeholders (Yew, 2013).

2.4 The Effect of Corporate Governance on Accounting

Corporate governance has become one of the most important topics on the company's agenda and one of the foundations for building trust in companies, as good corporate governance (GCG) can reduce the occurrence of earnings management practices with its various methods (Yew, 2013). The main purpose of corporate governance is to protect and increase the value of the company in a way that ensures the shareholders rights and the interests of other stakeholders (Asmar et al., 2018; Alia et al., 2022). The Cadbury Commission states that the good corporate governance is a principle aimed at balancing a company's strength and authority by delegating responsibilities to shareholders and stakeholders as a whole (Puspita et al., 2020). This step aims to regulate the power of all shareholders, managers and other parties involved in the development process in a given environment (Al Manaseer et al., 2012). Companies must apply ethical principles to achieve GCG.

The term Corporate Governance is very broad concept. According to Allam (2018), it is the systems and methods by which companies are controlled and managed, emphasizing its role in ensuring transparency, accountability, and the protection of stakeholder's interests. Amri et al. (2022) defines it as a process of monitoring and supervision designed to ensure that the company's Board of Directors acts in accordance with the interests of shareholders. Akporien (2021) argued that the role of corporate governance is not to direct the operations of the company per se, but to provide it with general directions, overseeing and controlling of management activities, meeting reasonable expectations of accountability, organizational requirements, and comply with interests outside the company's borders. Corporate governance provides a framework in which corporate goals are defined, the means of achieving those goals are determined, and performance is monitored (Firdaus et al., 2018).

The impact of corporate governance on accounting is a complex and multifaceted relationship that affects every aspect of financial reporting and transparency (Abbadi, 2016). Effective corporate governance practices, particularly those related to board of directors and audit committee oversight of financial reporting, can help to improve the quality of financial reporting, thereby making it more accurate and reliable (Alqaraleh & Nour, 2020). Corporate governance mechanisms such as sound internal controls and audit committees can serve as preventive measures against fraud and financial mismanagement. Additionally, a well-structured governance framework can prevent and detect accounting irregularities (Amri et al., 2022). Good corporate governance facilitates timely and transparent disclosure of financial information. This ensures that stakeholders have timely access to relevant accounting information, thereby increasing trust (Firdaus et al., 2018). Corporate governance practices that align management's interests with those of shareholders also help improve accountability (Ioualalen et al., 2015). This direction encourages management to adopt accounting practices that boost shareholder value.

Corporate governance frameworks often include compliance with IFRS. Adherence to these standards ensures consistency and comparability of financial reporting worldwide (Ioualalen et al., 2015). Having independent directors on the board can help reduce conflicts of interest and ensure that accounting decisions are in the best interests of the company and its stakeholders (Isa & Farouk, 2018). Corporate governance practices contribute to effective risk management (Bhasin & Shaikh, 2012). A well-structured

governance system can identify and address accounting-related risks, thereby contributing to a company's financial stability (Chariri & Januarti, 2017). Additionally, aligning executive compensation with long-term financial performance promotes good accounting practices (Albersmann & Hohenfels, 2017).

Audit committees play a crucial role as one of the key elements of corporate governance, particularly in light of corporate scandals (Deslandes et al., 2020). They bear the responsibility of overseeing the financial reporting process, internal controls, and the external audit, aiming to ensure transparency and accountability within the organization. Consequently, they must assume responsibility for both the external auditor and management to ensure the quality of the company's financial reporting and internal controls (Alves, 2013). Klein (2002) examined the relationship between audit committee/board characteristics and earnings management, accounting for other factors. The results showed a negative association between abnormal accruals and the independence of the Board of Directors or the audit committee. Previous accounting research has demonstrated the relationship between various factors of corporate governance and earnings management (Abdeljawad et al., 2023; Alhassan et al., 2019; Juhmani, 2017). The vast majority of research has focused on the Board of Directors and the audit committee as representatives of the corporate governance mechanism. For example, Akporien (2021) found that companies with a Board of Directors and/or audit committee made up of independent directors were less likely to manage profits. Concurrently, Yasser and Al Mamun (2016) also found that an effective corporate governance mechanism is less likely to manage profits. Moreover, Albersmann and Hohenfels (2017), Metawee (2013) and Anderson et al. (2004) emphasized that the characteristics of the Board of Directors are important determinants of earnings management.

2.5 Exploring Theories Clarifying the Relationship Between Audit Committees and Earnings Management

2.5.1 Agency Theory

Agency theory is primarily grounded in the concept of the agency relationship, delineating the connection between the principal (owner) and the agent (management) (Jalal, Alkoni, & Nour, 2023; Firdaus et al., 2018). This relationship materializes when owners grant decision-making authority to managers, empowering them to act on their behalf in alignment with their interests. The separation of ownership and management has given rise to a conflict of interest between the two parties. Owners aspire to maximize their assets and attain the highest return on investment, while managers seek job security, bonuses, incentives, and other benefits for their own interests. This conflict often leads to what is known as an agency problem, where managers may not consistently act in the best interests of the owners, capitalizing on the information asymmetry between management and owners (Akporien, 2021). Additionally, agency theory posits that the separation of ownership and control may prompt managers to engage in activities that serve their personal interests (Umar & Hassan, 2018). Undoubtedly, management practices such as earnings management may be employed to achieve their own interests, resulting in a conflict with shareholders. Thus, agency theory strives to balance the interests of managers and shareholders by instituting control measures that mitigate conflicts of interest and curb opportunistic behavior by management (Alhassan et al., 2019).

Audit committees prove to be a crucial control mechanism aimed at aligning management's interests with those of shareholders, thereby reducing agency problems associated with earnings management (Ayemere & Elijah, 2015). Earnings management is often driven by managers' personal interests and poses risks to shareholders because it can compromise the transparency and accuracy of financial reporting (Nelwan & Tansuria, 2019). Therefore, an audit committee composed of independent directors with supervisory responsibilities can prevent opportunistic behavior by management (Albersmann & Hohenfels, 2017). Because of their independence, audit committee members are well-suited to act in the best interests of shareholders and enhance the credibility of financial reporting (Juhmani, 2017). This independence minimizes the risk of managers manipulating financial reports for personal gain. Furthermore, agency theory

holds that the audit committee, as a representative of the owners, acts as an intermediary to bridge the information gap between shareholders and management (Akporien, 2021). The Committee's oversight of the financial reporting process, internal controls and the external audit function is designed to enhance transparency and accountability (Alzoubi, 2019). It balances potential agency problems and ensures that managers do not take advantage of information asymmetries to engage in earnings management practices that are contrary to shareholder interests (Al-Rassas & Kamardin, 2015). In practice, agency theory supports the view that a well-functioning audit committee, characterized by independence, expertise, and diligence, helps promote ethical financial reporting practices and minimize earnings management risks (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). This is consistent with the theory's broader goals of mitigating agency problems and establishing mechanisms to protect shareholder interests.

As a result, in the context of agency theory, audit committees become an important component in managing the agency relationship between owners and managers. By overseeing the financial reporting process and controlling management's discretion, the audit committee plays a key role in depressing earnings management and ensuring that financial information reflects shareholder interests (Abu Alia et al., 2020).

2.5.2 Stakeholder Theory

For the stakeholder theory, it posits that a company's success depends on its ability to maintain relationships with stakeholders, keep up with their expectations, and meet their diverse needs (Niresh & Silva, 2018). Stakeholders include all individuals such as shareholders, creditors, customers, suppliers, etc., who can influence or be influenced by the achievement of corporate goals (Juhmani, 2017). As such, managers must consider the needs of all stakeholders, not just shareholders, thereby limiting opportunistic behavior that results from misleading stakeholders in decision-making. Such behavior could weaken stakeholder confidence in the company (Yew, 2013).

Stakeholder theory emphasizes consideration of the diverse needs and expectations of all stakeholders, providing valuable insights into the role of the audit committee in mitigating earnings management (Herranz et al., 2022). According to stakeholder theory, a company's success is closely related to its ability to maintain positive relationships with various stakeholders, including shareholders, creditors, customers, and suppliers (Niresh

& Silva, 2018). In earnings management context, stakeholders, especially shareholders, rely on accurate financial information to make informed investment decisions. Earnings management practices that mislead stakeholders not only threaten shareholder trust but also have broader consequences for a company's relationships with other stakeholders (Abu Alia et al., 2020). Stakeholder theory suggests that companies should prioritize the interests of all stakeholders and avoid opportunistic behavior that could undermine these relationships (Juhmani, 2017).

Audit committees play a key role in upholding the principles of stakeholder theory (Galal et al., 2022). By overseeing the financial reporting process and internal controls, audit committees can prevent manipulative earnings management practices (Alhassan et al., 2019). The committee, which typically consists of independent directors, is able to act in the best interests of all stakeholders and ensure the transparency and accuracy of financial reporting, thus increasing stakeholder confidence (Albersmann & Hohenfels, 2017). Stakeholder theory promotes a holistic view of corporate responsibility, and audit committees are guided by this view through their oversight and supervisory functions (Inaam & Khamoussi, 2016). It is recognized that misleading financial conduct not only affects shareholders but also damages the trust of creditors, customers, suppliers and other stakeholders (Mishra & Malhotra, 2016). Therefore, effective audit committees help increase stakeholder satisfaction by promoting ethical financial reporting practices and protecting the interests of all those involved in the company's success (Al-Shaer et al., 2017).

2.6 Literature Review and Hypotheses Development

The audit committee is an important tool for achieving Good Corporate Governance, given its primary role in supervision and control (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). It serves to reduce or prevent aggressive earnings management and acts as an effective mechanism to minimize disputes arising from the separation of ownership from control (Alqaraleh & Nour, 2020; Abdeljawad et al., 2020). Its importance also includes making a significant contribution to promoting financial transparency, accountability and stakeholder trust (Abu Alia et al., 2020). Earnings management, the practice of distorting financial results to present a more positive image, poses significant risks to the credibility of financial reporting (Abdeljawad & Abu Alia, 2023). The audit committee serves as an oversight body and reviews financial statements, internal controls and the entire financial

reporting process. This oversight prevents financial data from being manipulated and provides a more accurate reflection of company performance (Alqaraleh & Nour, 2020). According to the Palestinian, Jordanian, Qatari, and Kuwaiti Corporate Governance Laws, which stipulate that the boards of directors of traded companies establish an audit committee responsible for controlling and supervising financial matters (Corporate Governance National Committee, 2009; Governance Instructions For Listed Stock Companies, 2017; Corporate Governance System, 2009; Corporate Governance Guide, 2013). The formation of this committee aims to instill confidence in financial reporting by reducing the occurrence of earnings management practices.

Galal et al. (2022) emphasize that the characteristics of the audit committee should receive careful attention because the mere existence of this committee does not guarantee that it will function as an effective body in monitoring and supervision. To ensure the committee's effectiveness, corporate governance standards define specific characteristics for its composition, thereby enhancing the quality of the audit process (Herranz et al., 2022). This, in turn, has the potential to reduce earnings management and mitigate uncertainty regarding reported earnings (Alqaraleh & Nour, 2020). In this context, five characteristics of ACs may influence earnings management practices: independence of committee members, gender diversity, frequency of meetings, experience, and size of the AC.

According to the literature, the role of the audit committee is considered necessary to support the credibility of the financial statements (Setiawan et al., 2020). Therefore, companies with an audit committee are likely to mitigate fraudulent practices by management, as well as hinder earnings management through the control and supervisory functions of the audit committee (Alves, 2013). Notably, there is an inverse relationship between discretionary benefits and the existence of an audit committee (Herranz et al., 2022). Likewise, there is a negative relationship between audit committees and earnings management, suggesting the ability of audit committees to curb such behavior (Ioualalen et al., 2015).

2.6.1 Audit Committee Independence

The independence of AC members is a key factor in ensuring the effectiveness of the committee's supervisory and oversight functions (Ha, 2022). Mishra and Malhotra (2016) highlight the importance of independence in an audit committee, and define independent audit committee members as individuals who do not have significant financial relationships with the company or persons associated with the company, which may affect members' ability to make objective and fair judgements. Independent audit committees are free from management pressure and therefore can more effectively oversee the financial reporting process (Amin et al., 2018).

Independent AC members can provide objective and unbiased oversight of the financial reporting process (Mardessi & Fourati, 2020). This is critical to maintain the integrity of financial reporting and ensuring that it accurately reflects the company's financial position. Additionally, independence minimizes the agency problems due to conflicts of interest that might arise when committee members have a relationship with the company or its management, thereby absence of conflicting interests allows members to prioritize the interests of shareholders (Ayemere & Elijah, 2015).

Independent members, free from managerial influence, are in a better position to examine financial reports, and can play a critical role in identifying and addressing risks associated with earnings management (Nelwan & Tansuria, 2019). They can also reduce the potential for earnings manipulation by regularly evaluating accounting practices and challenging management assumptions (Yasser & Al Mamun, 2016). Their focus on shareholder interests is consistent with the goal of providing a fair and accurate picture of the company's financial condition (Isa & Musa, 2018). Financial reports audited by an independent audit committee are likely to have greater credibility in the eyes of investors and stakeholders. This credibility can increase the risk of exposure to scrutiny and accountability, thereby deterrent managers from engaging in aggressive earnings management practices (Egwanwor & Thomas, 2022). Many corporate governance laws and regulations emphasize the importance of independent audit committees (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). These regulations often require the presence of independent members to ensure a robust system of checks and balances.

Under corporate governance laws in Palestine, Jordan, Qatar and Kuwait, company boards are required to establish audit committees. The law provides that the chairman of the committee must be independent, and its membership must include at least one person with experience and practical knowledge in accounting and financial matters (Corporate Governance National Committee, 2009; Governance Instructions For Listed Stock Companies, 2017; Corporate Governance System, 2009; Corporate Governance Guide, 2013). At the same time, the audit committee must remain independent from management in order to effectively perform its oversight and supervisory functions, and thereby protect the interests of shareholders (Setiawan et al., 2020). Moreover, investors universally demand companies to present reliable and honest information (Jatiningrum et al., 2020). For an audit committee to be truly effective and independent, a majority of its members must be non-executive directors (Abdeljawad et al., 2020). Research indicates that companies with a substantial proportion of independent audit committee members shows lower levels of EM practices (Nelwan & Tansuria, 2019; Isa & Farouk, 2018).

Many studies have confirmed that the independence of AC members enhances control over financial information and earnings management (Egwanwor & Thomas, 2022; Isa & Musa, 2018). Yasser and Al Mamun (2016) showed that companies that have an audit committee depressing earnings management practice. Mardessi and Fourati (2020) confirmed that the independence of the audit committee also reduces the behavior of real earnings management. In the same context, Abu Saleem (2019) indicates that the independence of the AC leads to improving the quality of financial reports. Additionally, Nelwan and Tansuria (2019) and Isa and Farouk (2018) showed that the independence of the audit committee is effective in depressing the behavior of earnings management. Accordingly, the presence of an independent AC is important and mandatory in public listed companies. Because, it is considered an effective and good mechanism for controlling tax risks as one of the practices of earnings management, and therefore the independent of the AC members must work to reduce tax risks (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). However, the findings of Setiawan et al (2020) and Chandrasegaram et al. (2013) differs from the previous studies, as they confirmed that there was no effect of the independence of the AC on earnings management. Furthermore, the study Amin et al (2018) and Hamdan et al (2013) showed a positive effect between the independence of AC members and the earnings quality.

The independence of AC members is an essential element in boosting financial accountability and transparency, mitigating the potential for earnings manipulation (Abu Saleem, 2019). Furthermore, the regulatory requirement for independent members on the audit committee serves as a basic safeguard against unethical financial practices, thereby enhancing the overall governance structure of the organization (Susanto, 2016). Consequently, this ensures that financial reports are consistent with the interests of shareholders and contribute to the overall credibility of the firm's financial disclosures (Yew, 2013). In light of this, we can make the following hypothesis:

H1: There is a statistically significant effect of audit committee independence on earnings management behavior.

2.6.2 Gender Diversity on the Audit Committee

Substantial gender differences have long been recognized in the psychology and management literature (Zalata et al., 2018). The participation of women managers in subcommittees such as ACs requires careful consideration, given the qualities they may bring to corporate boards and their contributions to corporate governance influences, such as leadership style, conservatism, communication skills, risk aversion, and decision-making (Isa & Farouk, 2018; Galal et al., 2022). Accordingly, the gender ratio of audit committee members can impact the quality of financial reports (Ammer & Ahmad-Zaluki, 2017).

Gender diversity brings different perspectives to the decision-making process. Female audit committee members often have diverse educational backgrounds and expertise. This diversity contributes to a more complete understanding of financial reporting issues and leads to more effective decision-making to prevent earnings manipulation (Zalata et al., 2018). The presence of women on audit committees can help create a more inclusive organizational culture. An inclusive culture is associated with improved governance practices, transparency, and a reduced likelihood of fraudulent activities, including earnings management (Mardessi & Fourati, 2020). In the framework of decision-making and control within the company, there are some differences between the sexes (female and male). For example, female managers exhibit higher moral considerations and more risk-averse attitudes than male managers (Setiawan et al., 2020). Female directors are also more cautious than male directors (Gavious et al., 2012). Regulators have recognized the

importance of gender diversity in corporate governance. As a result, regulators are considering regulations that mandate a minimum representation of women on boards and audit committees (Galal et al., 2022). Compliance with such regulations may lead organizations to prioritize gender diversity, thereby influencing financial reporting practices.

In recent years, the issue of gender diversity has garnered increasing attention in corporate finance and corporate governance literature (Zalata et al., 2018). Notably, women are now represented on important subcommittees such as the AC. Female ACs can mitigate earnings management because they tend to show higher ethical and conservative more than male audit committees (Saona et al., 2019). Additionally, female AC members are more likely than their male counterparts to comment and take action to enhance board oversight and limit earnings management practices (Ioualalen et al., 2015). During supervision, female managers tend to be more conservative and stricter in implementing rules (Setiawan et al., 2020). Accordingly, female managers may be considered more effective than male managers in reducing earnings manipulation.

Literature shows that teams are more effective when women outnumber or equal men, especially in complex management tasks requiring long-term management, relevant information processing, planning, and decision-making (Mardessi & Fourati, 2020). Additionally, studies have often shown that the proportion of women in groups is a significant predictor of group collective intelligence, understood as a group's overall ability to perform well on various tasks (Woolley et al., 2015). Several recent studies have explored the impact of female CEOs and managers on a firm’s financial performance and market value (Lakhal et al., 2015; Woolley et al., 2015; Gavious et al., 2012). Gender diversity on the AC has been shown to enhance organizational productivity and committee effectiveness (Aldamen et al., 2018; Green & Homroy, 2018), although some previous studies have found conflicting results. However, other studies have showed that female managers demonstrate better transformational leadership skills than their male counterparts, and female leaders tend to demonstrate a greater sense of responsibility by investing more energy into their tasks (Zalata et al., 2018). Moreover, Setiawan et al. (2020) found that the conservative and ethical characteristics of women improve corporate governance and reduce hidden and potential fraud risks. Sudarman and Hidayat (2019) investigated the impact of AC gender on the earnings management of industrial

companies listed on the Indonesian Stock Exchange from 2013 to 2017. The paper concludes that audit committee gender has a significant negative impact on the earnings management of industrial companies. Isa and Farouk (2018) and Ammer and Ahmad-Zaluki (2017) showed that women on the audit committee are more cautious and have more decision-making power when preparing financial reports. Additionally, some literature has also found a negative relationship between female directors and earnings management, indicating that earnings management tends to decrease when the number of women on the audit committee increases (Galal et al., 2022; Setiawan et al., 2020; Aldamen et al., 2018). Other studies have confirmed a negative relationship between female managers and earnings management (Saona et al., 2019; Green & Homroy, 2018; Ioualalen et al., 2015). However, there is also evidence indicating that female directors have no influence on earnings management, some studies did not find an association between the proportion of women on audit committees and earnings management practices (Sun et al., 2011). Based on the above, we propose the following hypotheses:

H2: Gender diversity on the audit committee has a statistically significant influence on earnings management behavior.

2.6.3 Frequency of Meetings

Regular and well-organized AC meetings play a vital role in shaping a company's financial reporting landscape (Abu Saleem, 2019). The impact of these meetings on earnings management practices is manifold. First and foremost, AC meetings provide a structured platform for auditors and management to engage in discussions regarding the audited financial statements. This direct interaction ensures that potential issues related to earnings management are discovered and thoroughly investigated (Amin et al., 2018). Ongoing dialogue between auditors and management enables ongoing evaluation of financial practices, thereby reducing the possibility of opportunistic earnings management (Salloum et al., 2014). Additionally, the initiative to meet frequently provides audit committees with the opportunity to address emerging financial reporting challenges in a timely manner (Setiawan et al., 2020).

Companies that prioritize regular, meaningful, and well-structured AC meetings are more likely to create an environment of financial transparency that minimizes the risks associated with earnings management practices (Galal et al., 2022). In addition to their

oversight role, audit committee meetings can serve as a deterrent to questionable financial behavior (Bicer & Feneir, 2019). The awareness that financial reports are scrutinized at regular meetings acts as a deterrent to managers from considering profit management strategies. This preventive effect is especially evident when the audit committee carefully discusses and understands the complexities of financial reporting (Abu Saleem, 2019).

The audit committee performs the function of controlling and monitoring information provided by management for important decisions. This interaction occurs either through management's official attendance at AC meetings or through the exchange of information by informal channels (Phuong & Hong, 2021). According to the laws and instructions of Palestinian, Jordanian, Qatari, and Kuwaiti corporate governance, the audit committee is required to meet periodically, with a minimum of four meetings per year, i.e., at least once every three months (Governance Instructions For Listed Stock Companies, 2017; Corporate Governance Guide, 2013; Corporate Governance National Committee, 2009; Corporate Governance System, 2009).

Meetings during which auditors discuss the audited financial statements, if conducted effectively, can adversely impact earnings management practices (Amin et al., 2018). Several studies conclude that regular audit committee meetings throughout the financial year are essential for effective oversight. Therefore, the more frequently they occur, the better the audit committee can exercise its functions of monitoring and controlling the financial environment, thereby reducing financial reporting problems and ensuring the reliability of financial reporting through these meetings (Galal et al., 2022). The frequency of the meetings has a positive impact on the effectiveness of the audit committee's work (Salloum et al., 2014). Additionally, researchers argue that audit committees that meet frequently have more opportunities to discuss financial reporting issues and can be more effective in preventing accounting fraud and in overseeing and monitoring financial activities such as the preparation and reporting of financial information of the company (Abu Saleem, 2019; Bicer & Feneir, 2019).

The number of AC meetings serves as a descriptor of the committee's activities. Several studies indicate that an increased frequency of audit committee meetings is expected to mitigate earnings management practices (Setiawan et al., 2020). Regular audit committee meetings not only enhance their professional competence and control function, positively

influencing company performance (Musallam, 2020), but also serve as an important indicator of issues that the committee needs to address, subsequently reducing the likelihood of fraud or misrepresentation (Bicer & Feneir, 2019). In previous studies, frequent meetings of the audit committee have showed the conscientiousness of committee members and the diligent work exercised by the audit committee. Metawee (2013) and Lin and Hwang (2010) found a significant negative correlation between audit committee meetings and practices of earnings management. While Lee et al. (2012) and Persons (2009) found a positive association between the number of audit committee meetings and voluntary disclosure, indicating the committee's diligence. Moreover, the frequent meetings of the audit committee with the internal audit is evidence of the effectiveness of the audit committee in addressing critical internal control issues (Alzeban & Sawan, 2015). Frequent audit committee meetings are very encouraging as they help the committee maintain greater professional due diligence, which reduces earnings management practices (Soliman & Ragab, 2014). However, different studies have shown different results. Some studies, such as Galal et al. (2022) and Phuong and Hong (2021) found no significant association between the frequency of audit committee meetings and earnings management practices. Similarly, Hasan et al. (2019) and Chandrasegaram et al. (2013) reported no close relationship between audit committee meetings and earnings management size. Consequently, the frequency of audit committee meetings alone may not be sufficient to deter the practice of earnings management in publicly traded companies. Based on this literature review, the following hypothesis is formulated:

H3: The frequency of audit committee meetings has a statistically significant influence on earnings management behavior.

2.6.4 Financial Expertise of Audit Committee

From an agency theory perspective, the audit committee, comprised of members with accounting and financial expertise, serves as a crucial mechanism to address the agency problem within the company (Mardessi & Fourati, 2020). This problem arises due to the separation of ownership (shareholders) and control (management), leading to potential conflicts of interest (Firdaus et al., 2018). Members equipped with financial expertise are better positioned to comprehend complex financial reporting, enabling them to more effectively monitor management behavior (Nguyen, 2022). The audit committee's expertise plays a vital role in preventing opportunistic behavior by management

(Abdeljawad, Al-Selkhi, & Abu-Ras, 2023). Earnings management, a method through which management may manipulate financial data to present a positive image in economic reality for personal gain. This poses risks to shareholders as it can impact the transparency and accuracy of financial reports, negatively affecting the company and its reputation (Abu Alia et al., 2020). However, the presence of members with practical and scientific expertise, coupled with a deep understanding of accounting principles and financial reporting standards, empowers the audit committee to critically assess financial disclosures and prevent opportunistic behavior by management. This, in turn, reduces the likelihood of earnings management, ultimately safeguarding the interests of shareholders (Abdeljawad & Abu Alia, 2023). In line with agency theory, the expertise of the audit committee is pivotal in balancing potential agency problems and ensuring that managers do not exploit information asymmetry to engage in earnings management practices conflicting with the interests of shareholders.

On the other hand, stakeholder theory, assumes that companies are responsible not only to shareholders but also to a broader group of stakeholders, including investors, creditors, employee, customers, and communities (Juhmani, 2017). Against this backdrop, an AC with diverse expertise ensures that financial reporting is accurate, transparent and meets the expectations of various stakeholders (Al-Shaer et al., 2017). Additionally, the expertise of audit committee members is consistent with stakeholder theory, enhancing the committee's ability to respond to the interests of various stakeholders (Kibiya et al., 2016).

The presence of knowledge and experience among AC members contributes significantly to enhance shareholder value and influences strategic decision-making process within the company. This expertise is essential for effective collaboration with other committees (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Amri et al., 2022). According to Law No. (42) for the year 2021 governing Palestinian companies and corporate governance instructions in Jordan, Qatar, and Kuwait, AC members are required to possess knowledge in accounting and financial matters. Moreover, at least one member must have previous work experience in accounting or financial fields or hold a professional or academic qualification in accounting or other related fields (Advisory and Legislation Bureau, 2021; Governance Instructions For Listed Stock Companies, 2017; Corporate Governance Guide, 2013; Corporate Governance System, 2009).

For audit committee members to perform their duties effectively, it is essential that they possess the ability to read, interpret, and analyze financial statements (Habib & Bhuiyan, 2016). Therefore, members should be experienced and financially knowledgeable to instill confidence in shareholders and stakeholders through reliable and transparent profit reporting (Obermire et al., 2021). Having members with expertise in accounting and finance increases the possibility of accurate financial data disclosure, as they adhere to ethical codes to maintain their reputation, enhancing more effective control within companies (Setiawan et al., 2020). Notably, it's not necessary for all members to possess accounting or financial experience, as the committee can engage specialized consultants without undermining the expertise of its members, and this does not mean a lack of interest in the experiences of committee members (Kibiya et al., 2016). The inclusion of an accounting and financial expert on the audit committee plays a pivotal role in guiding the committee's control over opportunistic risks by management. This expertise helps in managing expectations, reducing information conflicts and conflicts of interest, thereby enhancing control and the quality of earnings (Nguyen, 2022). The combination of experience and competence among members significantly impacts the audit committee's effectiveness, particularly in high-risk decision-making scenarios (Siagian & Siregar, 2018). Additionally, financial expertise among members enhances the audit committee's authority over executive management decisions (Velte, 2018).

The diversity of practical and cultural backgrounds, along with different skills, enhances the effectiveness of the committee by providing varied experiences and opinions in supervising the company's performance and strategies (Pathak et al., 2021). Nevertheless, the experience of the members is an important factor in performing their duties, including finding solutions to difficult and complex issues that may arise between management and other regulatory bodies (Mardessi & Fourati, 2020). Members can acquire experience by interacting with other audit committees, expanding their knowledge, and enhancing the oversight process (Velte, 2018). Research supports the existence of an audit committee to improve corporate governance, enhance the quality of information, and limit the behavior of earnings management. In light of this, previous literature emphasizes the importance of having scientific and practical experience among members to enhance oversight and restrict earnings management practices, coupled with the ability to make

decisions that directly impact the financial performance of the company (Ayemere & Elijah, 2015).

Abdeljawad, Al-Selkhi & Abu-Ras (2023); Mardessi & Fourati (2020) indicates an inverse effect between financial experience and earnings management, highlighting financial experience as an effective mechanism for reducing earnings management. Increasing the proportion of financial experts in the Audit Committee is shown to enhance the quality of earnings and financial reports (Al-Shaer et al., 2017; Habib & Bhuiyan, 2016). Employing members with financial expertise helps prevent the manipulation of financial statements (Abu Alia et al., 2020). An audit committee equipped with knowledge and experience in accounting and finance is likely to reduce the incidence of earnings manipulation in the company (Kibiya et al., 2016). The study by Ioualalen et al. (2015) and Be´dard et al (2004) confirms that an audit committee with financial and accounting expertise has an adverse effect on earnings management practices. Additionally, an audit committee that consists of a financial expert member is inversely associated with discretionary accruals (Phuong & Hong, 2021; Be´dard et al., 2004). However, the study by Setiawan et al (2020) and Alkdai and Hanefah (2012), which examines the relationship between the characteristics of the audit committee and earnings management in Malaysian and Indonesian companies, differs from previous studies. It shows that there is no significant relationship between financial experts and earnings management. Based on these arguments, we can propose the following hypothesis:

H4: Financial expertise in the audit committee has a statistically significant impact on earnings management behavior.

2.6.5 Size of Audit Committee

The size of the audit committee varies depending on the organization's needs (Qader et al., 2022). According to the Palestinian Companies Law, as per Article 189, and the corporate governance instructions for Jordanian, Qatari, and Kuwaiti, the AC must include at least three members, either from the Board of Directors (BOD) or other individuals with practical experience and knowledge. The majority of the audit committee members should be non-executive managers, and the committee's chairman must be an independent member of the Board of Directors (Advisory and Legislation Bureau, 2021; Governance Instructions For Listed Stock Companies, 2017; Corporate Governance

Guide, 2013; Corporate Governance System, 2009;). The size of the audit committee supports its fundamental role in effectively monitoring financial reports when numerous members possess knowledge and skills, leading to a limitation of earnings management (Al-Sayani et al., 2020). A large audit committee with experienced and diverse members may enhance the monitoring process and complement each other (Mazurina et al., 2017). However, some researchers argue that increasing the number of audit committee members may lead to operational losses and a lack of flexibility (Afza & Nazir, 2014).

The quality of the audit is influenced by the size of the audit committee, composed of independent members with accounting and financial experience, which positively affects the quality of financial reports (Musallam, 2020). Independent members with knowledge and skills can address problems arising from agency theory, contributing to the improvement of oversight and supervisory roles over executive management behavior (Al-Sayani et al., 2020). On the other hand, diversity of experiences among committee members is considered a major factor in reducing the possibility of errors in financial statements (Pathak et al., 2021). The size of the committee, composed of independent members who are part of the Remuneration and Incentives Committee, has a significant impact in reducing the risks of earnings manipulation (Krishnan & Lee, 2009).

According to agency theory, the audit committee is an important mechanism to mitigate the agency problems caused by the separation of ownership and control in a firm (Firdaus et al., 2018). A larger audit committee size is generally viewed as a positive factor, aligning shareholder interests with management interests, reducing information asymmetries, and discouraging opportunistic behavior such as earnings management. The idea is that a larger committee can bring a greater diversity of skills, experience, and perspectives, improving its ability to effectively oversee management actions (Ayemere & Elijah, 2015). Furthermore, the presence of larger audit committees is associated with improved governance quality, increased oversight, and enhanced transparency. This, in turn, discourages managers from adopting earnings management practices because they are subject to rigorous controls and accountability (Krishnan & Lee, 2009). Research shows an inverse relationship between audit committee size and earnings management practices, which is consistent with agency theory (Fitri & Siswantoro, 2022; Juhmani, 2017). It is believed that larger committees can resolve potential conflicts of interest

between managers and shareholders and reduce the likelihood of earnings management to serve managerial interests (Mazurina et al., 2017).

Stakeholder theory emphasizes the importance of considering the interests of all stakeholders, not just shareholders (Yew, 2013). From this perspective, larger audit committees can better protect stakeholders by ensuring ethical financial practices (Musallam, 2020). Furthermore, the diversity of knowledge and experiences within a larger audit committee can be seen as a means of protecting the interests of different stakeholders, thereby enhancing the committee's ability to detect and prevent earnings management, maintaining the financial health of the company and its stakeholders (Al-Sayani et al., 2020). Additionally, larger AC has a positive impact on the quality of financial reporting. This is critical for stakeholders who rely on accurate financial information to make decisions. Higher reporting quality may indicate a lower likelihood of earnings management and increase stakeholder trust (Qader et al., 2022). Accordingly, a larger audit committee, due to its diversity, is better able to reduce the likelihood of errors in financial reporting, thereby protecting stakeholders from the risks associated with inaccurate financial information, contributing to the long-term sustainability of the company and maintain its reputation (Pathak et al., 2021).

Many studies have supported the resource dependency theory, asserting that the effectiveness of the audit committee increases with its size. A larger audit committee, with more members, can allocate more resources and authority to perform its responsibilities efficiently, making it better equipped to fulfill its oversight responsibilities and addressing various matters and challenges faced by the company. This enhanced resource allocation may act as a deterrent to earnings management, as committees have a greater ability to critically evaluate financial disclosures and prevent manipulation (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Deslandes et al., 2020; Al-Rassas & Kamardin, 2015). A study Fitri and Siswantoro (2022) demonstrated an inverse relationship between the size of the audit committee and earnings management practices. Qader et al. (2022) found a positive association between the size of the audit committee and the quality of financial reports. Additionally, a positive association exists between the size of the audit committee and company performance due to the diverse knowledge and experiences among independent committee members (Musallam, 2020; Afza & Nazir, 2014). Researchers Krishnan and Lee (2009) and Anderson et al (2004) suggested

that a larger audit committee improves governance quality, providing strong supervision and enhancing disclosure and transparency levels. Another study Juhmani (2017) confirmed a significant negative relationship between the size of the audit committee and earnings management, indicating that larger audit committees may contribute to reducing earnings management practices in companies. However, conflicting findings exist, with some literature indicating that the size of the audit committee has no effect on earnings management practices, as evidenced by studies where the number of members had no impact on earnings management at all (Hasan et al., 2019; Alkdai & Hanefah, 2012). Based on the above, we propose the following hypothesis:

H5: The size of the audit committee has a statistically significant impact on earnings management behavior.

Chapter Three
Methodology and Procedures

3.1 Introduction

The current study aims to determine the extent of the role of AC's in influencing the EM practices of industrial companies listed on the (PEX), the (ASE), the (QSE), and the (KSE). This chapter provides a description of the research methodology, the study population and its sample, the data collection, the variable measurement mechanisms, the model, the interpretation of the research model, and finally the statistical analysis methods used.

3.2 Methodology

3.2.1 Studt Sample

This study employs an analytical descriptive approach to reach logical results supporting the study's hypotheses. Additionally, a historical approach is taken to review the previous studies. The population and sample for this study include 76 industrial companies listed on the Palestine, Amman, Qatar, and Kuwait Stock Exchanges, as per the official websites of PEX, ASE, QSE, and KSE. The distribution of companies is as follows: 11 on PEX, 33 on ASE, 10 on QSE, and 23 on KSE. All listed industrial companies were considered, excluding one newly listed company on the Kuwait Stock Exchange, as the time series used in this study does not encompass newly listed companies. Conducted over a span of 6 years (2016-2021), this study examines the most significant characteristics of ACs and their impact on EM practices, comprising a total of 456 observations. Each country was selected based on a set of shared characteristics and criteria, considering their distinct legal frameworks, economic structures, and industrial landscape. The presence of industrial firms listed on the sample study provides a standardized platform for comparative analysis across different regulatory environments. This uniformity facilitates the evaluation of AC effectiveness and its implications for EM practices. Despite the diverse legal and economic landscapes across the chosen countries, there exist overarching themes such as regulatory frameworks and corporate governance standards. These shared elements serve as the basis for comparative analysis and enable the identification of common trends or disparities in AC composition and EM practices.

Table (1)

Distribution of Industrial Companies in the Sample and Population.

Stock Exchange	Total Companies	Industrial Companies "Population"	Sample of Industrial Companies	Industrial Percentage (%)	Industrial Companies in Entire Sample (%)
PEX	48	11	11	23.0%	14.5%
ASE	167	33	33	19.8%	43.4%
QSE	51	10	10	19.6%	13.2%
KSE	149	23	22	15.4%	29.0%
Total	**415**	**77**	**76**	**18.6%**	**100%**

3.2.2 Data Collection

The researcher relied on a variety of relevant secondary data and information, primarily sourced from the annual financial reports of industrial companies and the disclosures they issued throughout the study period, all of which were published on their respective websites. This data was gathered according to the official websites of the Palestine, Amman, Qatar, and Kuwait stock exchanges. Additionally, the study relied on information from scientific journals and theses relevant to the subject.

3.2.3 Measurement of Variables

3.2.3.1 The Independent Variable (IV)

AC characteristics are the independent variables in this study. Therefore, it addresses one of the most important characteristics of the AC in reducing opportunistic managerial behavior, which has been used by many academics and researchers, who have sparked much interest in studying the effectiveness of these characteristics in influencing managerial behavior (Galal et al., 2022; Alhassan et al., 2019; Albersmann & Hohenfels, 2017; Yasser & Al Mamun, 2016; Ayemere & Elijah, 2015; Yew, 2013; Persons, 2009; Be´dard et al., 2004). Especially with the emergence of the *agency problem* due to the differences and conflicts of interest between management and shareholders. These characteristics include the following (independence, gender diversity, frequency of meetings, experience and size of the AC). Independence of an audit committee can be measured by assessing the percentage of independent members within the committee (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Galal et al., 2022). Independent members are those who do not have any significant financial relationships with the firm the or family

ties, ensuring unbiased decision-making (Amin et al., 2018). Gender diversity is often measured by the percentage of females within the audit committee (Ha, 2022). This percentage provides insights into the inclusivity and diversity of the committee, contributing to a broader range of perspectives (Mardessi & Fourati, 2020).

The frequency of meetings is a straightforward metric, usually measured by the number of times the audit committee meets annually (Phuong & Hong, 2021). Frequent meetings may indicate a proactive approach to oversight (Galal et al., 2022). The experience of audit committee members can be assessed based on their scientific and professional background, including certifications in accounting or financial management, the number of years in relevant roles, and previous experience in auditing or financial management (Obermire et al., 2021; Chariri & Januarti, 2017). A diverse range of expertise contributes to the committee's effectiveness. While, the size of the audit committee refers to the total number of audit committee members (Musallam, 2020). Ideally, a balance should be achieved; Too few members may lack diversity of ideas, while too many may hinder effective decision-making (Fitri & Siswantoro, 2022). The size should be appropriate to the organization's complexities and needs. These measurements assist in evaluating the efficiency and effectiveness of the audit committee in fulfilling its responsibilities related to financial oversight and governance. Therefore, it is necessary to align these metrics with the specific challenges faced by the organizations under study. The mechanisms for measuring these variables are summarized in Table (2) of this study.

3.2.3.2 The Dependent Variable (DV)

EM appears as the dependent variable in this study. Previous literature has commonly measured EM through discretionary accruals (Abdeljawad & Abu Alia, 2023; Aburisheh et al., 2022; Singto & Precious, 2021; Abu Alia et al., 2020; Alzoubi, 2019; Ioualalen et al., 2015; Yew, 2013). Total accruals include various types of accruals. In contrast to non-discretionary accruals, which arise as a result of natural processes, discretionary accruals result from voluntary actions by management to manipulate profitability (Abdeljawad & Abu Alia, 2023). Therefore, this paper outlines several models for evaluating EM, including the following:

I. Healy Model (1985)

As a foundational model in the literature, Healy's (1985) approach was among the earliest attempts to measure earnings management by estimating normal earnings management in each period. However, it has faced criticism for its simplicity, notably from researchers like Young (1999), who deemed it inappropriate for estimating discretionary accruals.

Healy (1985) tested the hypothesis that managers, particularly those with bonus schemes tied to company performance, would seek to enhance their bonuses through the application of earnings management. He demonstrated that a company's profits comprise cash flows from operating activities, non-discretionary accruals, and discretionary accruals. The model operates under the assumption that managers can influence earnings amounts over periods using discretionary accruals within a given opportunity. However, this assumption diverges from the reality that this year's discretionary accruals form a portion of last year's total accruals. Notably, in this model, discretionary accruals are expected to be zero.

While Healy's model played a pioneering role, it has faced criticism for oversimplifying real-world financial reporting complexities. The model assumes that discretionary accruals are entirely controllable, overlooking external factors and managerial constraints that could hinder the effectiveness of earnings management. Moreover, relying on a zero assumption for discretionary accruals might not accurately capture the intricacies of managerial decision-making. Additionally, it is important to note that the model's assumptions may not apply universally across diverse industries or under changing economic conditions. The dynamic nature of business environments and evolving accounting standards could restrict the model's applicability in contemporary settings (Chandrasegaram et al., 2013). These limitations emphasize the need for a nuanced understanding of Healy's model and consideration of alternative approaches in the study of earnings management. Before calculating discretionary accruals, the non-discretionary accruals (NDAs) must be calculated as follows:

$$NDA_t = \frac{1}{n} \sum_{i=t-n} \frac{TA_{it}}{A_{i-1}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Eq. (1)}$$

Where; $\mathbf{NDA_t}$ the non-discretionary accruals adjusted for total assets at time *t*; **t** the estimated years; **n** the no. of estimated years; $\mathbf{TA_{it}}$ the total accruals of the firm *i* at year *t*; A_{i-1} the total assets of the firm in the previous year $i - t$.

The discretionary accrual is calculated as the difference between the company's total accruals and the normal accruals from the previous equation:

$$DA_t = TA_{it} - NDA_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Eq. (2)}$$

II. DeAngelo Model (1986)

Following the introduction of the Healy (1985) model, the DeAngelo (1986) model emerged as its development, positioning itself as a specialized version of the Healy model. One significant difference is that the DeAngelo model does not require an assessment interval and limits non-discretionary accruals based on previous year observations (Dechow et al., 1995). However, this design choice raises concerns about the model's adaptability to changing economic conditions, as it assumes constancy in non-discretionary accruals over the examined period.

The assumption of constancy in non-discretionary accruals, shared by both the Healy (1985) and DeAngelo (1986) models, is considered a potential weakness. Given the changing economy's impact on non-discretionary accruals, as indicated by Kaplan (1985), this limitation suggests that the models may not fully capture the dynamic nature of economic factors influencing accruals, potentially leading to errors in assessing earnings management.

Furthermore, DeAngelo's model inherits challenges from Healy's model, as both acknowledge the difficulty in isolating discretionary accruals. The identification and isolation of discretionary accruals are complex but crucial for detecting earnings management practices (Chandrasegaram et al., 2013). The reliance on historical data and acknowledgment of this computational challenge prompt questions about how effectively the model can provide accurate insights into earnings management. In addition to these concerns, the fact that the DeAngelo (1986) model builds on Healy's (1985) model raises the possibility that issues from the original model may persist in the updated version. While building on existing ideas can be beneficial, it's essential to recognize potential problems inherited from the original model. Despite its merits, the DeAngelo model

seems to have limitations in terms of adaptability, addressing computational challenges, and possibly carrying over weaknesses from its foundational model. This raises doubts about its effectiveness as a comprehensive measure of earnings management. DeAngelo examined the present and past periods with the following formula:

$$AC_1 - AC_0 = (DA_1 - DA_0) + (NA_1 - NA_0) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Eq. (3)}$$

Where; $\mathbf{AC_1}$ total accruals; **$\mathbf{DA_1}$** discretionary accruals; **$\mathbf{NA_1}$** non-discretionary accruals; **$\mathbf{0}$, $\mathbf{1}$** prior period, examined period.

III. Jones Model (1991)

Jones (1991) challenges the assumptions made by Healy (1985) and DeAngelo (1986), arguing against the notion that non-discretionary accruals remain constant from one period to another. He highlights the reality that non-discretionary accruals undergo changes in each period over time, emphasizing the need for a new measurement method to accurately estimate them. However, the Jones model is not without its concerns. While proposing a time series model that considers changes in sales and the total amount of depreciable fixed assets to control for the impact of changes on non-discretionary accruals, some potential drawbacks emerge (Jones, 1991). The reliance on a time series model might introduce complexities, and the inclusion of specific variables such as sales and fixed assets could potentially lead to a more intricate calculation process.

Even with these concerns, Jones (1991) suggests a helpful approach, recognizing the need to adjust measurement methods to handle the changing nature of non-discretionary accruals. It's important to weigh the benefits and possible drawbacks to thoroughly evaluate how well the Jones model can estimate total accruals. The following illustrates the approach proposed by Jones:

$$\frac{TA_t}{A_{t-1}} = \alpha_1 * \frac{1}{A_{t-1}} + \alpha_2 * \frac{\Delta REV_{it}}{A_{t-1}} + \alpha_3 * \frac{PPE_{it}}{A_{t-1}} + \boldsymbol{\varepsilon}_{it} \quad \ldots\ldots\ldots\ldots \text{ Eq. (4)}$$

The formula for non-discretionary accruals is as follows:

$$\frac{NDA_t}{A_{t-1}} = \alpha_1 * \frac{1}{A_{t-1}} + \alpha_2 * \frac{\Delta REV_{it}}{A_{t-1}} + \alpha_3 * \frac{PPE_{it}}{A_{t-1}} \quad \ldots\ldots\ldots\ldots\ldots\ldots \text{ Eq. (5)}$$

The discretionary accruals are *calculated* as the previous equation (2).

Where; $\mathbf{A_{t-1}}$ represents the lagged assets; $\mathbf{\Delta REV_{it}}$ represents changes in revenues; $\mathbf{PPE_{it}}$ represents the gross value of property, plant, and equipment.

IV. Industry Model (1991)

Another model discussed in the literature is the industrial model proposed by Dechow and Sloan (1991). The industry model diverges from the assumption that non-discretionary accruals remain constant over time. Instead of directly figuring out what causes these accruals, the industry model thinks that the reasons for changes are similar for companies in the same industry. But this model has some problems. For example, it might oversimplify things for individual companies in an industry, making it not so accurate in estimating non-discretionary accruals (Dechow & Sloan, 1991). Even with these problems, the industry model can be represented by this equation:

$$\frac{TA_{it}}{A_{it-1}} = y_{1i} + y_{2i}\ median_{1i}\left(\frac{TA_{it}}{A_{it-1}}\right) + \varepsilon_{it} \quad \text{..... Eq. (6)}$$

Where; $\mathbf{TA_{it}}$ the total accruals of the firm *i* at year *t*; $\mathbf{A_{it-1}}$ the total assets of firm *i* at the end of year *t – 1*; $\mathbf{y_1, y_2}$ firm specific parameters; $\boldsymbol{median_{1i}}\left(\frac{\boldsymbol{TA_{it}}}{\boldsymbol{A_{it-1}}}\right)$ Median value of total accruals; $\boldsymbol{\varepsilon_{it}}$ error term of the firm *i* at year *t*.

V. Modified Jones Model (1995)

The Modified Jones model (1995), extensively cited in the literature, builds upon the widely used Jones model (Abdeljawad & Abu Alia, 2023; Dechow et al., 1995; Jones, 1991; Healy, 1985). DeFond and Jiambalvo (1994) suggested a refinement by proposing separate calculations for regression coefficients within each sector, aiming for improved outcomes. The modified model, as proposed by Dechow et al. (1995), challenges the assumption that firms do not manage their revenues. It recognizes that companies often manipulate receivables to control when they receive funds from their revenues. Additionally, it considers companies managing earnings through revenue statements. Dechow et al (1995) argue that this approach provides a more nuanced understanding, capturing the effect of human manipulation on the variation in key operating income in the Jones model.

The Modified Jones model, established by Dechow et al. (1995), stands out as the most widely used in accounting literature. After scrutinizing numerous earnings management detection models, Dechow et al. (1995) found it to be the most effective and reliable. This model's strength lies in its ability to address the shortcomings of the original Jones model, especially in handling the manipulation of revenues and the nuanced impact of human behavior on key operating income.

Abbadi (2016) and Soliman and Ragab (2014) further endorse the Modified Jones model, identifying it as the most reliable for measuring earnings management. The model's flexibility in capturing manipulations related to receivables and revenue statements enhances its applicability across various industry contexts. Kasznik (1999) contributes significantly by incorporating changes in operating cash flow into the Jones' Model, augmenting its ability to provide a comprehensive measure of earnings management.

In this study, we adopt the Kasznik approach within the Modified Jones model, recognizing its advantages in addressing nuanced manipulations and offering a more refined assessment of earnings management practices. This is done through the following steps:

1. Total accruals are calculated according to an operating model that specifies that total accruals equal the difference between net income after tax and net cash flow from operating activities.

$$TA_{it} = NI_{it} - OCF_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Eq. (7)}$$

Where; $\mathbf{TA_{it}}$ the total accruals of the firm *i* at year *t*; $\mathbf{NI_{it}}$ the net income amount of firm *i* at year *t*; $\mathbf{OCF_{it}}$ the amount of operating cash flow of firm *i* at year *t*.

2. The Modified Jones Model (1995) used by Kasznik (1999) is estimated. The error term is then used to calculate the non-discretionary accruals. This model is presented as follows:

$$TA_{it} / A_{it-1} = \alpha_1(1 / A_{it-1}) + \alpha_2[(\Delta REV_{it} - \Delta REC_{it})/ A_{it-1}] + \alpha_3(PPE_{it} / A_{it-1}) + \alpha_4(\Delta OCF_{it} / A_{it-1}) + \varepsilon_E \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Eq. (8)}$$

Where:

$\mathbf{TA_{it}}$: the total accruals of the firm *i* at year *t*.

$\mathbf{A_{it-1}}$: the total assets of firm *i* at the end of year *t – 1*.

$\mathbf{\Delta REV_{it}}$: the change in revenues of firm *i* between years t and *t – 1.*

$\mathbf{REC_{it}}$: the change in receivables of firm *i* between years t and *t – 1*.

$\mathbf{PPE_{it}}$: is the total of property, plant, and equipment of firm *i* in year *t*.

$\mathbf{\Delta OCF_{it}}$: the amount of operating cash flow of firm *i* at year *t*.

$\boldsymbol{\varepsilon_E}$: the residual, which represents the discretionary portion of total accruals of a firm.

3. Finally, in this study, the absolute value of discretionary accruals is used as the dependent variable since it can include both increasing and decreasing income options.

3.2.3.4 The Control Variables (CVs)

Based on previous literature and in addition to the independent variables discussed above, this study included a number of control variables to manage for organizational characteristics that may affect the occurrence of earnings management (Abdeljawad & Abu Alia, 2023; Galal et al., 2022; Abu Alia et al., 2020; Mishra & Malhotra, 2016; Soliman & Ragab, 2014; Salleh & Haat, 2014). These variables include firm size, operating cash flow, and leverage, all of which have a significant impact on earnings management.

Firm size is commonly measured by using the natural logarithm of the total assets (Nour et al., 2022). The relationship between firm size and earnings management can vary based on different factors. Large companies are often thought to have higher costs due to their scale and complexity. The expectation is that larger companies might engage in more earnings management to manage these costs. However, Meek et al. (2007) argue the opposite, indicating that earnings management may be lower in large companies. This perspective suggests that large companies, with their stronger governance structures and

reduced information asymmetry, may have less incentive or need to engage in earnings management compared to smaller companies. Furthermore, Ali et al. (2015) reported in their study that firm size has a significantly positive impact on earnings management.

Operating cash flow represents the cash generated by a company's core operating activities, excluding financing and investing activities (Abughniem et al., 2020). It is often calculated as the operating cash flows divided by the incomes (Soliman & Ragab, 2014). The expectation is that companies with good operating cash flow are less likely to engage in earnings management. Jiang et al. (2008) assert that high operating cash flow indicates a company's efficiency in generating cash from its core operations, reducing the need for manipulative accounting practices. Conversely, companies with low operating cash flow may be more inclined to use earnings management to manage their financial performance, especially during financial challenges. This study controls the impact of operating cash flow to identify performance differences between companies in different industries and to monitor the business impact on earnings management.

The higher leverage (as measured by the debt-to-asset ratio) is associated with executives being more likely to decide to cut their earnings (Mishra & Malhotra, 2016). It is expected that companies with higher levels of debt may face pressure to meet debt covenants or avoid financial distress. Therefore, executives may be more inclined to manipulate earnings downward to meet these obligations or present a more favorable financial position to stakeholders (Bicer & Feneir, 2019). Empirical research shows that firms in financial distress and firms on the verge of default on their debts have higher rates of abnormal accruals, higher rates of GAAP violations, and a greater likelihood of accounting fraud (Soliman & Ragab, 2014). The higher the firm is leveraged, the more likely it is that executives will decide to cut their earnings.

Table (2)

Measurement of Variables

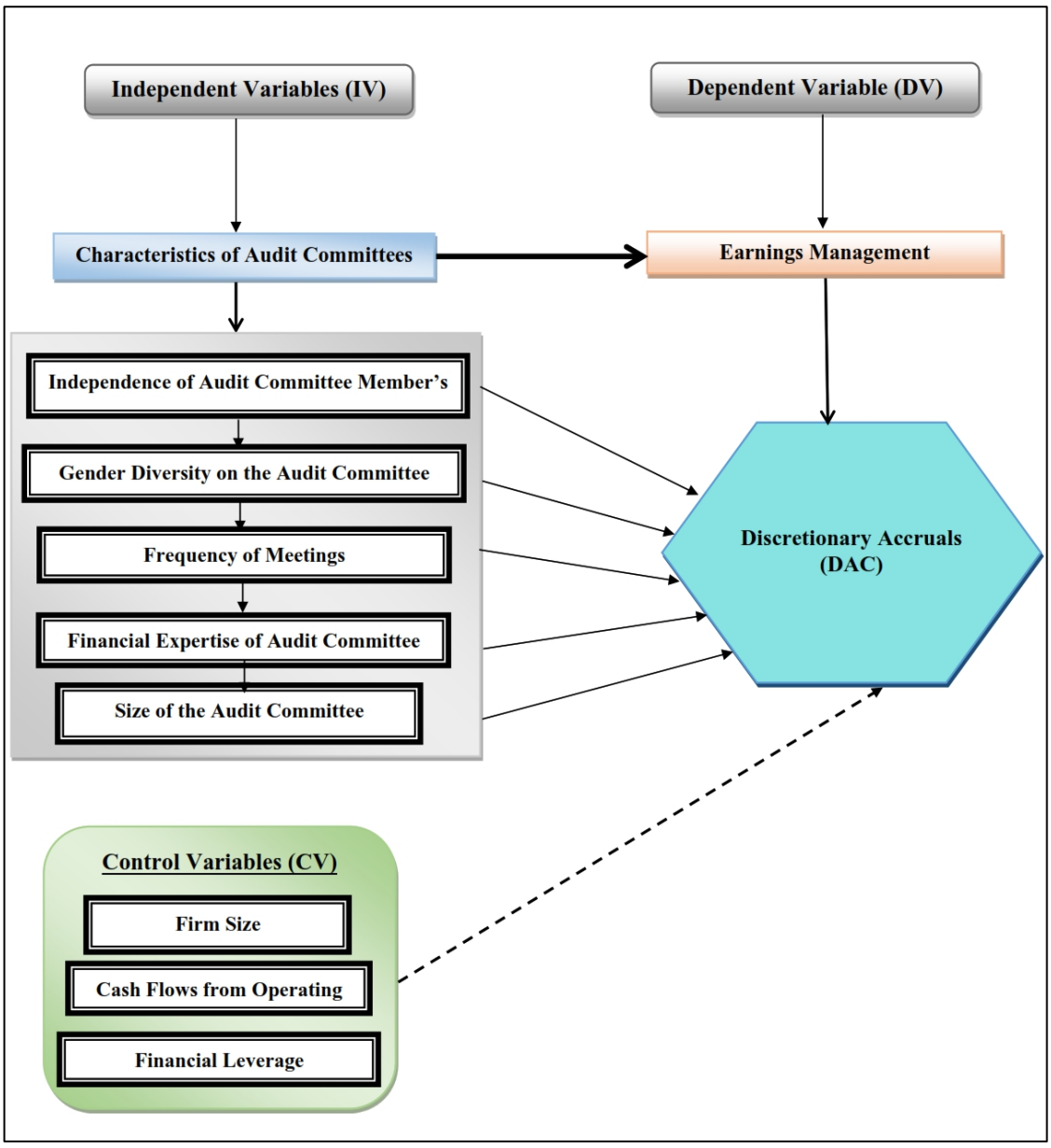
Variables	Ticker	Measurement	Expected Sign	References
Dependent variable				
Discretionary Accruals	**DAC**	*The Modified Jones Model.*	**Dependent**	(Singto & Precious, 2021; Abu Alia et al., 2020).
Independent variables:				
Independence of Audit Committee Member's	**IND_AC**	*The ratio of the independent (non-executive) members of the AC to the total number of members of the AC.*	+	(Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Ha, 2022).
Gender Diversity of the Audit Committee	**GD_AC**	*Percentage of females on the AC.*	+	(Ha, 2022; Mardessi & Fourati, 2020; Setiawan et al., 2020).
Frequency of Meetings	**MEET_AC**	*No. of AC meetings in a year.*	+	(Galal et al., 2022; Phuong & Hong, 2021).
Financial Expertise of Audit Committee	**EXP_AC**	*The percentage of the no. of members who have a degree in accounting or financial management or who have practical experience in accounting or finance from the total members of the AC.*	+	(Obermire et al., 2021; Deslandes et al., 2020; Chariri & Januarti, 2017).
Size of the Audit Committee	**SIZ_AC**	*The total no. of AC members.*	+	(Fitri & Siswantoro, 2022; Musallam, 2020).
Control variables:				
Firm Size	**FI_SIZE**	*The natural logarithm of the total assets.*	+	(Nour et al., 2022; Asa'd et al., 2023; Abdeljawad et al., 2023).
Cash Flows from Operating	**CFO**	*Operating cash flows divided by the incomes.*	+	(Abughniem et al., 2020; Soliman & Ragab, 2014).
Financial Leverage	**FLEV**	*Total debt/total equity.*	+	(Bicer & Feneir, 2019; Mishra & Malhotra, 2016).

3.2.4 Study Model

To clarify the relationship between the set of *independent variables*, *the dependent variable and the control variables*, this model was built:

Figure (1)

Study Model



Source: (Prepared by the researcher).

3.2.5 Model

We use the following linear model to test the hypotheses, where the dependent variable is (EM). The independent variables are the characteristics of the AC, which are (IND_AC), (GD_AC), (MEET_AC), (EXP_AC), and (SIZ_AC) for the effectiveness of the AC. While the other variables in the model are the control variables in the factors related to the financial characteristics that may have an impact on management decisions in manipulating or managing profits:

$$\mathbf{EM = \beta 0 + \beta 1(IND\_AC) + \beta 2(GD\_AC) + \beta 3(MEET\_AC) + \beta 4(EXP\_AC) + \beta 5(SIZ\_AC) + \beta 6(FI\_SIZE) + \beta 7(CFO) + \beta 8(FLEV) + \varepsilon_{it}}$$

Where: EM, earnings management**; IND_AC,** independence of the audit committee**; GD_AC,** gender diversity of the audit committee**; MEET_AC,** meeting of the audit committee**; EXP_AC,** expertise of the audit committee**; SIZ_AC,** size of the audit committee**; FI_SIZE,** firm size**; CFO,** cash flow operating**; FLEV,** financial leverage**;** and **ε,** the error term.

3.2.6 Statistical Analysis Methods

To test the hypotheses and process the data obtained, the researcher used the following statistical methods to achieve the objectives of this study:

1. **Descriptive Statistics:** Is includes percentages and arithmetic means, medians, standard deviations, and maximum and minimum values of study variables that provide explanatory analysis.
2. **Variance Inflation Factor "VIF":** To measure the strength of the model through the absence of overlap between the variables of the study "Multicollinearity".
3. **Correlation Coefficient:** To determine the relationship between the independent variables and the dependent variable.
4. **Linear Regression Analysis:** The study used fixed effects and random effects linear regression models to examine the effect of independent variables as well as control variables on the dependent variable. This statistical analysis method allows to used understand the strength of the correlation or effect between the independent and dependent variables.

Chapter Four

Data Analysis and Findings

4.1 Introduction

To achieve the objectives of the study, this chapter discusses the analysis of data collected from the annual financial reports of the companies sampled for the study. Several statistical methods were used to reach the results and thus be able to answer the study question and confirm its hypotheses or not. The R statistical computer programming program was used to analyze the collected data, a common approach in numerous studies (Jebreen & Ghattas, 2016; Jebreen, 2017; Jebreen et al., 2021). Therefore, descriptive analysis is used to describe the mean, median, maximum, minimum and standard deviation of the research variables, correlation coefficient analysis is used to clarify the relationship between variables, and linear regression coefficients are used to determine the extent and strength of the effect between the independent variables and the dependent variable.

4.2 Descriptive Statistics

The descriptive statistical analysis in Table 3 highlights the key variables including the dependent variable (DAC), independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) and control variables (FI_SIZE, CFO, FLEV).

The mean value of the dependent variable "DAC" is 0.42 (p = 0.21), signifying that the modified Jones model represents approximately 42%, with minimum and maximum values of -0.52 and 2.43, respectively, and a standard deviation of 0.31. Notably, the majority of audit committee members exhibit independence, reflected in an IND_AC ratio of 0.67 (p = 1.00), However, the p-value for this variable is 1.00, exceeding the conventional significance level of 0.05. This implies that, statistically, the observed independence may not be considered significant. The participation of women in audit committees represented by GD_AC is extremely low, with a mean percentage of 0.02 (p = 0.03). This observation indicates that the proportion of women on audit committees is extremely small, with an associated p-value of less than 0.05, highlighting the statistical significance of this result. Low participation rates may be influenced by various social and family factors that influence women's participation in the audit committees, especially in the context of the study sample countries.

The mean of MEET_AC is 4.18 (p = 0.84), indicating that, on average, companies in the study sample generally adhere to the Governance Code recommendations regarding the number of audit committee meetings. However, it is worth noting that the p-value is not statistically significant (p > 0.05). Despite the compliance trend, this result is not statistically robust. The mean percentage of EXP_AC is 0.83 (p = 1.0), indicating that the majority of members have accounting and financial experience. However, it is worth noting that the p-value is higher than 0.05, indicating that the result is not statistically significant. The mean value of SIZ_AC is 3.21 (p = 0.91), which indicates that, on average, the companies in the sample generally adhere to the Corporate Governance Code recommendations regarding the size of audit committee members. Again, it is worth noting that the p-value is higher than 0.05, indicating that this result is not statistically significant.

The mean ratio of FI_SIZE is 7.94 (p = 1.0) with a standard deviation of 0.88. The mean ratio of CFO is 2.21 (p = 0.17), indicating good operating cash flow in industrial companies within the study sample. However, it's important to note that the p-value is greater than 0.05, indicating that this result is not statistically significant. The mean of FLEV is 2.24 (p = 0.91), indicating that 224% of assets are financed with debt. The ratio is considered very high and not in line with industry standards, indicating an imbalanced capital structure. This implies increasing debts to finance assets, which is generally considered an imprudent financial strategy and increases the financial risks associated with excessive debt. However, it is also important to note that the p-value is above 0.05, indicating a lack of statistical significance in this result.

Table (3)

Descriptive Analysis for PEX, ASE, QSE, and KSE

Variable	Mean	Median (Q1-Q3)	P-value	Min.	Max.	Standard Deviation	N (Missing Value)
DAC	0.42	0.4(0.21-0.59)	0.21	-0.52	2.43	0.31	456(0)
IND_AC	0.67	0.66(0.33-1)	1.0	0.0	1.0	0.30	456(0)
GD_AC	0.02	0(0-0)	0.03	0.0	0.66	0.1	456(0)
MEET_AC	4.18	4(4-4)	0.84	0.0	13.0	1.38	456(0)
EXP_AC	0.83	1(0.66-1)	1.0	0.33	1.0	0.22	456(0)
SIZ_AC	3.21	3(3-3)	0.91	2.0	7.0	0.64	456(0)
FI_SIZE	7.94	7.88(7.36-8.53)	1.0	5.76	10.06	0.88	456(0)
CFO	2.21	0.9(-0.04-2.03)	0.17	-144.76	189.3	18.91	456(0)
FLEV	2.24	0.47(0.24-0.87)	0.91	0.0	584.7	27.43	456(0)

4.3 Correlation Coefficient Analysis

Table 4 illustrates the Pearson correlation coefficients used to analyze the relationships and determine the direction of the relationship between independent and control variables with the dependent variable (Earnings Management), as well as assesses the strength of the relationships among the independent variables.

The correlation analysis presented in Table 4 indicates that the correlation coefficient values between each variable are not notably high, with the highest correlation coefficient reaching only 0.30. Consequently, the relationships between the independent variables are usually less than 0.80, signifying an absence of multicollinearity problems among the research variables. This ensures the ability to assess the importance of each individual variable and its distinct contribution to predicting the dependent variable.

The correlation coefficient analysis in Table 4 reveals significant results. Notably, there is a negative and statistically significant relationship between the frequency of meetings and earnings management, supported by a correlation coefficient of -0.10 and a p-value of 0.03, at a significance level less than 0.05. Conversely, a positive and statistically significant relationship is observed between the independence of the audit committee and earnings management (0.10, $p = 0.026$), at a significance level less than 0.05. Moreover, a negative but insignificant relationship is noted for gender diversity and the expertise of the audit committee with earnings management (-0.82, $p = 0.07$) and (-0.02, $p = 0.73$) respectively, with significance levels exceeding 0.05. Additionally, positive relationships are identified between the size of the audit committee, firm size, operating cash flow, and financial leverage with earnings management, despite these relationships being statistically insignificant.

Table (4)

Correlation Coefficient Analysis for PEX, ASE, QSE, and KSE

Correlation	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
(1) DAC	1								
(2) IND_AC	**0.1(0.026)**	1							
(3) GD_AC	-0.08(0.071)	-0.03(0.538)	1						
(4) MEET_AC	**-0.1(0.03)**	**-0.2(<0.001)**	0.03(0.555)	1					
(5) EXP_AC	-0.02(0.736)	-0.01(0.752)	0(0.967)	-0.06(0.229)	1				
(6) SIZ_AC	0.03(0.489)	-0.08(0.088)	0.03(0.555)	**0.3(<0.001)**	**-0.12(0.008)**	1			
(7) FI_SIZE	0.05(0.252)	0.01(0.863)	**0.18(<0.001)**	-0.09(0.068)	**0.28(<0.001)**	**-0.14(0.003)**	1		
(8) CFO	0.05(0.327)	0(0.955)	-0.07(0.125)	**0.18(<0.001)**	-0.07(0.112)	0(0.943)	0.01(0.906)	1	
(9) FLEV	0.07(0.162)	0.03(0.458)	0.02(0.614)	**0.11(0.023)**	-0.05(0.311)	0.03(0.572)	**0.17(<0.001)**	0(0.977)	1

Note: Significant at p-value less than 0.05.

4.4 Linear Regression Analysis

We conducted two models—the fixed effects model and the random effects model—to examine the impact of independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) on the dependent variable (Earnings Management). The selection of the most suitable model was determined through the Hausman test. If the p-value from the Hausman test is greater than 0.05, we employed a random effects model; otherwise, if the p-value is 0.05 or less, we employed the fixed effects model. Additionally, we verified the absence of collinearity problems using (VIF).

Based on the results of the Hausman test, which yielded a p-value of 0.92—exceeding the significance level of 0.05—we chose a random effects model interpretation. This decision is supported by the linear regression analysis presented in Table 5. Accordingly, we proceeded to test the results of the following hypotheses:

H1: There is a statistically significant effect of audit committee independence on earnings management behavior.

Upon examining the independence of the audit committee, the study revealed a p-value of 0.946 at a significance level of 0.05, showing independence at 0.006. However, since the probability value exceeds the significance level (0.05), we reject the hypothesis that indicates a statistically significant effect of audit committee independence on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. Instead, we accept the hypothesis indicating a positive but not statistically significant effect of audit committee independence on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges.

Although the p-value is statistically insignificant, the results have implications that may warrant further exploration. These findings are particularly interesting in the context of the theoretical frameworks adopted in this study, which propose a link between audit committee independence and earnings management behavior. We will delve into a detailed analysis of these results, offering interpretations grounded in the adopted theories. Additionally, we will explore how these findings align with or contradict existing literature, providing a more nuanced understanding of the role of audit committee

independence in influencing earnings management behavior within the context of the studied industrial company's sample.

H2: Gender diversity on the audit committee has a statistically significant influence on earnings management behavior.

The findings reveal a coefficient of -1.32 with a probability value of 0.001 at a significance level of 0.05. Since the probability value is less than the significance level of 0.05, we accept the study's hypothesis, indicating that gender diversity in the audit committee has a statistically significant negative effect on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. This implies that as gender diversity increases in the audit committee, earnings management behavior tends to decrease in the listed industrial companies across the four countries.

H3: The frequency of audit committee meetings has a statistically significant influence on earnings management behavior.

When examining the frequency of audit committee meetings, the study results indicate a coefficient of -0.10, with a probability value of 0.005 at a significance level of 0.05. Notably, the probability value is less than the significance level of 0.05. Therefore, we accept the study's hypothesis, indicating that the frequency of audit committee meetings has a statistically significant negative effect on the behavior of earnings management in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. This implies that earnings management behavior tends to decrease in the companies of the sample study when the frequency of audit committee meetings increases.

H4: Financial expertise in the audit committee has a statistically significant impact on earnings management behavior.

The financial expertise of audit committee members is indicated by a coefficient of -0.39 with a probability value of 0.04 at the significance level of 0.05. Notably, the probability value is less than the significance level of 0.05. Accordingly, we accept the study hypothesis, which indicates that financial expertise in the audit committee has a statistically significant negative effect on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. This

implies that increasing the financial expertise of audit committee members will reduce earnings management behavior in the listed industrial companies across the four countries.

H5: The size of the audit committee has a statistically significant impact on earnings management behavior.

When examining the size of the audit committee, the study results indicate a coefficient of 0.16 with a probability value of 0.02 at a significance level of 0.05. However, the probability value is less than the significance level of 0.05. Therefore, we accept the study hypothesis, which indicates that the size of the audit committee has a positive, statistically significant effect on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. This implies that earnings management behavior in listed industrial companies in the four countries tends to increase when the size of the audit committee increases, despite the presence of experienced members that may depress earnings management behavior.

Moreover, controlling variables, along with independent variables, play a significant role in influencing earnings management behavior. The findings reveal an operating cash flow coefficient of 0.01 with a probability value of 0.03 at a significance level of 0.05. Notably, this probability value is less than the significance level of 0.05, indicating a positive and statistically significant effect of cash flow from operating activities on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. This implies that an increase in cash flows from operating activities is associated with an increase in earnings management behavior in companies listed in the four countries.

Additionally, the study indicates that firm size (0.037, $p = 0.469$) and financial leverage (0.046, $p = 0.208$) have a positive impact on earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges, although these effects are not statistically significant.

4.5 Discussion of The Findings

According to the results of the study hypothesis testing, the statistically significant negative effects of gender diversity, frequency of audit committee meetings, and experience of audit committee members on earnings management behavior can be explained through the perspective of agency theory. Therefore, in line with agency theory predictions regarding effective monitoring mechanisms, an increase in gender diversity, the frequency of audit committee meetings, and the experience of audit committee members is expected to reduce agency problems by aligning the interests of managers and shareholders. The results further indicate that an increase in these characteristics is associated with a decrease in earnings management behavior in industrial companies listed on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges. Agency theory supports this finding regarding effective monitoring mechanisms. This also aligns with the perspective of stakeholder theory, which emphasizes the preservation and protection of stakeholder interests. Similar results were observed in studies conducted by Galal et al (2022), Setiawan et al (2020), Sudarman and Hidayat (2019), and Al-Shaer et al (2017), supporting the consistency of these effects across different contexts.

The presence of women in the audit committee plays a crucial role in depressing earnings management. This may be attributed to their traits, such as transparency, accuracy, conservatism, and strict adherence to rules. Furthermore, females may also show higher morality and more risk-averse attitudes than their male counterparts. Agency theory supports the idea that diverse perspectives in the decision-making process reduce agency problems. Stakeholder theory aligns with positive engagement that reflects stakeholder interests and contributes to transparency.

Frequent audit committee meetings, resulting from an increased frequency, have proven effective in reducing earnings management. The Audit Committee holds periodic meetings to evaluate performance by reviewing the company internal systems and ensuring their effectiveness in preventing fraud and errors. These regular meetings also involve verifying compliance with local and international controls and laws, contributing to the observed reduction in earnings management behavior. Moreover, the experience of the audit committee members plays a pivotal role in reducing earnings management behavior. The diversity of experience among the members enhances the effectiveness of the audit committee in detecting fraud and provides added value to its operations.

Conversely, the predictions of agency theory contradict the positive and significant effects of audit committee member size and operating cash flow on earnings management behavior. These findings may indicate potential interagency conflicts, as larger committee sizes and high cash flow from operating activities are associated with higher earnings management behavior. It appears that larger committee sizes and abundant cash flow in listed industrial companies on the Palestine, Jordan, Qatar, and Kuwait Stock Exchanges may not necessarily be consistent with agency problems. Despite the presence of good experience among the members, contributing to aligning the interests of managers and shareholders, these characteristics do not effectively protect the interests of stakeholders from the perspective of stakeholder theory. Moreover, there are shortcomings in the members of the Audit Committee performing their effective and required role, even with the presence of valuable experience. This contradicts the findings of the study by (Fitri & Siswantoro, 2022). The contradiction in these results may be attributed to differences in sample characteristics, methodologies, or even contextual factors.

Although the positive effects of audit committee independence, firm size, and financial leverage on earnings management behavior are not statistically significant, they are not supported by agency theory. According to the expectations of agency theory, the independence of audit committee members, as an effective monitoring mechanism, may mitigate agency problems. However, the positive effects of these factors, though not statistically significant, may imply that they do not necessarily prevent earnings management behavior, indicating a potential lack of commitment to governance mechanisms, especially regarding the independence of audit committee members. Additionally, this may be due to audit committee members not performing their work in the manner required to achieve the committee's objectives. Moreover, a larger company size and higher leverage may indicate potential risk factors. This finding appears to conflict with agency theory, which posits that larger firms are expected to exhibit superior management. Additionally, a high debt-to-asset ratio may exacerbate agency problems, highlighting potential conflicts of interest with stakeholders from the perspective of stakeholder theory. However, this contradicts the findings of the study by Setiawan et al. (2020). The contradiction in these results may be attributed to differences in sample characteristics or methodologies.

Table (5)

Linear Regression Analysis for PEX, ASE, QSE, and KSE

Dependent Variable: "DAC"	Model 1 Fixed effect				Model 2 Random effect				Hausman Test	VIF
Independent Variables	**Beta**	**SD**	**P**	**R^2/AR^2**	**Beta**	**SD**	**P**	**R^2/AR^2**		
IND_AC	0.003	0.086	0.97		0.006	0.086	0.946			1.06
GD_AC	-1.354	0.417	0.001		-1.326	0.414	0.001			1.04
MEET_AC	-0.111	0.037	0.003		-0.106	0.037	0.005			1.22
EXP_AC	-0.393	0.196	0.046		-0.39	0.196	0.047			1.13
				0.072/0.043				0.072/0.043	0.92	
SIZ_AC	0.164	0.072	0.024		0.168	0.072	0.02			1.14
FI_SIZE	0.035	0.051	0.489		0.037	0.051	0.469			1.2
CFO	0.01	0.005	0.023		0.01	0.004	0.028			1.07
FLEV	0.046	0.037	0.213		0.046	0.037	0.208			1.06

Note: Significant at p-value less than 0.05.

4.6 Additional Analysis

4.6.1 Linear Regression Analysis for PEX

In this section, we conducted two models—the fixed effects model and the random effects model—to explore the impact of independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) on the dependent variable (Earnings Management). The selection of the most suitable model was determined through the Hausman test. If the Hausman test value $p > 0.05$, we employ a random effects model, but if $p \leq 0.05$, we use a fixed effects model. Additionally, we verified the absence of collinearity problems using the Variance Inflation Factor (VIF).

We chose to interpret the random effects model based on the Hausman test's p-value, which was found to be 0.885, exceeding the significance level of 0.05. Table 6 shows a negative, statistically significant effect of the experience of audit committee members (-1.968, $p = 0.001$) and firm size (-0.429, $p < 0.001$) on earnings management behavior. This implies that earnings management practiced by the listed Palestinian industrial companies decreases as the experience of audit committee members and firm size increase. This is consistent with studies by Phuong and Hong (2021) and Mardessi and Fourati (2020). However, there is a positive, significant effect of the size of audit committee members (0.587, $p < 0.001$) and operating cash flow (0.02, $p = 0.019$) on earnings management. This indicates that increasing the size of committee members and cash flow from operating activities increases earnings management behavior, contradicting findings by Fitri and Siswantoro (2022) and Juhmani (2017). The contradiction in these results may be attributed to differences in sample characteristics, methodologies, or even contextual factors. Moreover, there is a negative but statistically insignificant effect of the independence of audit committee members (-0.325, $p = 0.074$), frequency of meetings (-0.091, $p = 0.156$), and financial leverage (-0.016, $p = 0.93$) on earnings management. However, this is consistent with studies by Mardessi and Fourati (2020), Musallam (2020), Nelwan and Tansuria (2019), and Isa and Farouk (2018). On the other hand, gender diversity (1.074, $p = 0.41$) shows a positive effect on earnings management behavior but is statistically insignificant, contradicting findings by Setiawan et al. (2020) and Saona et al. (2019).

According to the above results, the statistically significant negative effects of AC members experience and firm size on earnings management behavior can be explained with agency theory. Thus, according to agency theory, control mechanisms, such as experienced audit committee members and larger firm size, are expected to reduce agency problems by aligning the interests of managers and shareholders. The results indicate that as the experience of audit committee members and firm size increases, there is a decrease in earnings management behavior among listed Palestinian industrial companies. This is consistent with agency theory's predictions about effective monitoring mechanisms.

Conversely, the positive and significant effects of AC member size and operating cash flow on earnings management behavior appear to be contradictory to agency theory predictions. These findings may indicate potential interagency conflicts, as larger committee sizes and greater cash flow from operating activities are associated with higher earnings management behavior. This may indicate that larger committee sizes and abundant cash flow in listed Palestinian industrial companies are not necessarily compatible with agency problems. Moreover, despite the presence of good experience among the members that contributes to aligning the interests of managers and shareholders, there are shortcomings in the members of the Audit Committee performing their effective and required role.

The nonsignificant negative effects of independence of AC members, frequency of meetings, and financial leverage on earnings management are consistent with agency theory, and this indicates that these characteristics may not significantly influence agency conflicts in the context of Palestinian listed industrial firms. From a stakeholder theory perspective, the results indicate that gender diversity does not have a statistically significant effect on earnings management behavior. This may indicate that gender diversity is not a strong determinant of the motivations that stakeholders encourage or desire for earnings management in the context of these firms.

Table (6)

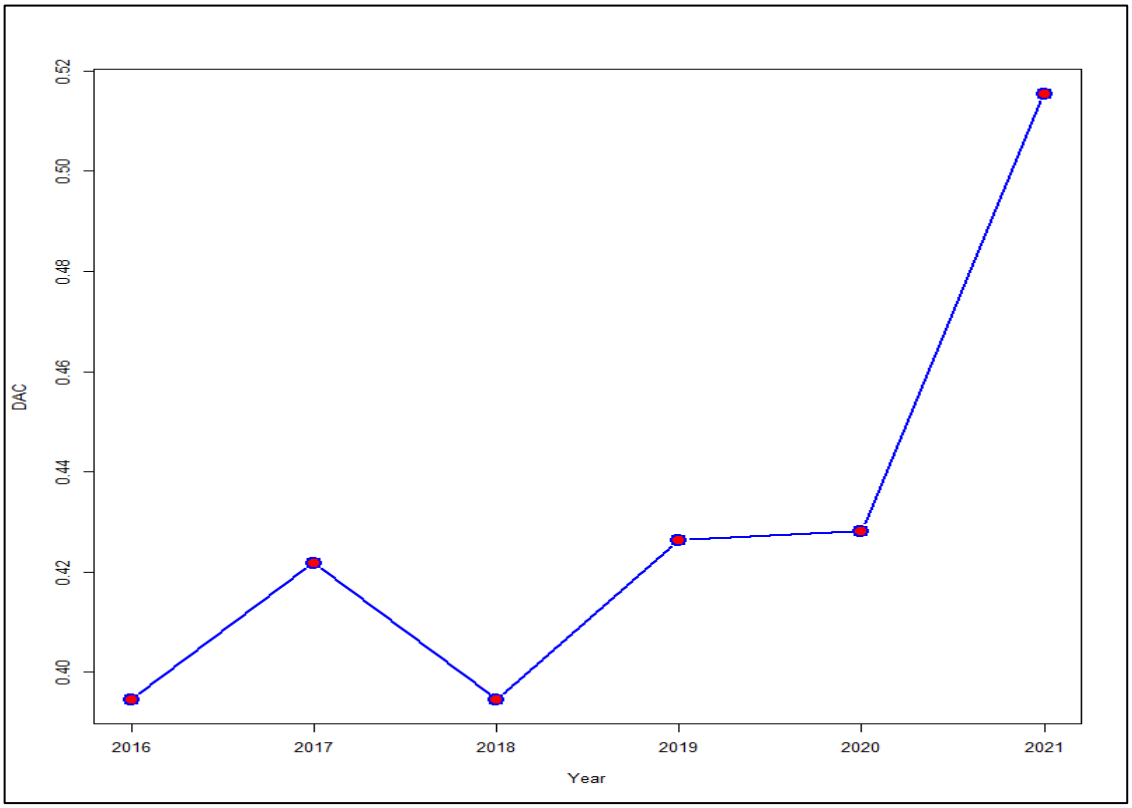
Linear Regression Analysis for PEX

Dependent Variable: "DAC"	Model 1 Fixed effect				Model 2 Random effect				Hausman Test	VIF
Independent Variables	**Beta**	**SD**	**P**	**R^2/AR^2**	**Beta**	**SD**	**P**	**R^2/AR^2**		
IND_AC	-0.328	0.184	0.081		-0.325	0.182	0.074			1.95
GD_AC	0.134	1.439	0.926		1.074	1.303	0.41			1.08
MEET_AC	-0.092	0.066	0.168		-0.091	0.064	0.156			1.25
EXP_AC	-2.007	0.62	0.002		-1.968	0.611	0.001			1.73
SIZ_AC	0.64	0.169	<0.001	0.616/0.52	0.587	0.164	<0.001	0.616/0.52	0.885	1.13
FI_SIZE	-0.467	0.118	<0.001		-0.429	0.113	<0.001			1.27
CFO	0.019	0.009	0.031		0.02	0.009	0.019			1.1
FLEV	-0.15	0.2	0.457		-0.016	0.178	0.93			1.22

Note: Significant at p-value less than 0.05.

Figure (2)

Trend of DAC from 2016 to 2021 in PEX



4.6.2 Linear Regression Analysis for ASE

The fixed effects model and the random effects model were conducted to examine the impact of independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) on the dependent variable (Earnings Management). Model selection was based on the Hausman test. If the p-value from the Hausman test ($p > 0.05$), we employ a random effects model; otherwise, we employ a fixed effects model. Importantly, no collinearity problems were detected using (VIF).

We selected the random effects model for interpretation based on the Hausman test p-value, which was found to be 0.816, exceeding the significance level of 0.05. Table 7 reveals a statistically significant negative effect of firm size (-0.237, $p = 0.033$) on earnings management behavior, indicating a decrease in earnings management among listed Jordanian industrial companies as firm size increases. Conversely, there is a positive and significant effect for gender diversity (2.558, $p = 0.009$), operating cash flow (0.013, $p = 0.004$), and financial leverage (0.097, $p = 0.022$) on earnings management

behavior. This indicates that earnings management tends to increase with higher gender diversity, operating cash flow, and financial leverage, contradicting studies by Setiawan et al. (2020), Saona et al. (2019), and Amin et al. (2018). Furthermore, there is a negative but insignificant effect of the frequency of meetings (-0.028, p = 0.545) on earnings management behavior, aligning with the findings of Musallam (2020). Additionally, there is a positive effect for the independence of the audit committee (0.101, p = 0.37), experience of the audit committee (0.306, p = 0.161), and the size of the committee (0.024, p = 0.739) on earnings management behavior; however, these effects are considered insignificant, contradicting studies by (Setiawan et al., 2020; Saona et al., 2019 & Amin et al., 2018).

Based on the above findings, larger firms may be more likely to have better compliance with governance mechanisms or face greater scrutiny, thereby reducing the likelihood of earnings management behavior. Furthermore, the results indicate that increased gender diversity, operating cash flow, and financial leverage are associated with an increase in earnings management. This contradicts the perspective of agency theory, as it indicates that both gender diversity and broader female participation in the audit committee, along with abundant cash flow and a higher ratio of debt to assets in listed Jordanian industrial companies, are indicative of agency problems. This finding deviates from some previous studies and may be attributed to differences in sample characteristics and methodologies. Additionally, the findings indicate that the frequency of meetings may not be a significant factor depressing earnings management behavior in listed Jordanian industrial companies, aligning with results from other studies. Despite the positive effects observed for the independence, experience, and size of the audit committee, they do not have a statistically significant impact on earnings management, contradicting agency theory. This contrast also extends to some previous studies.

Table (7)

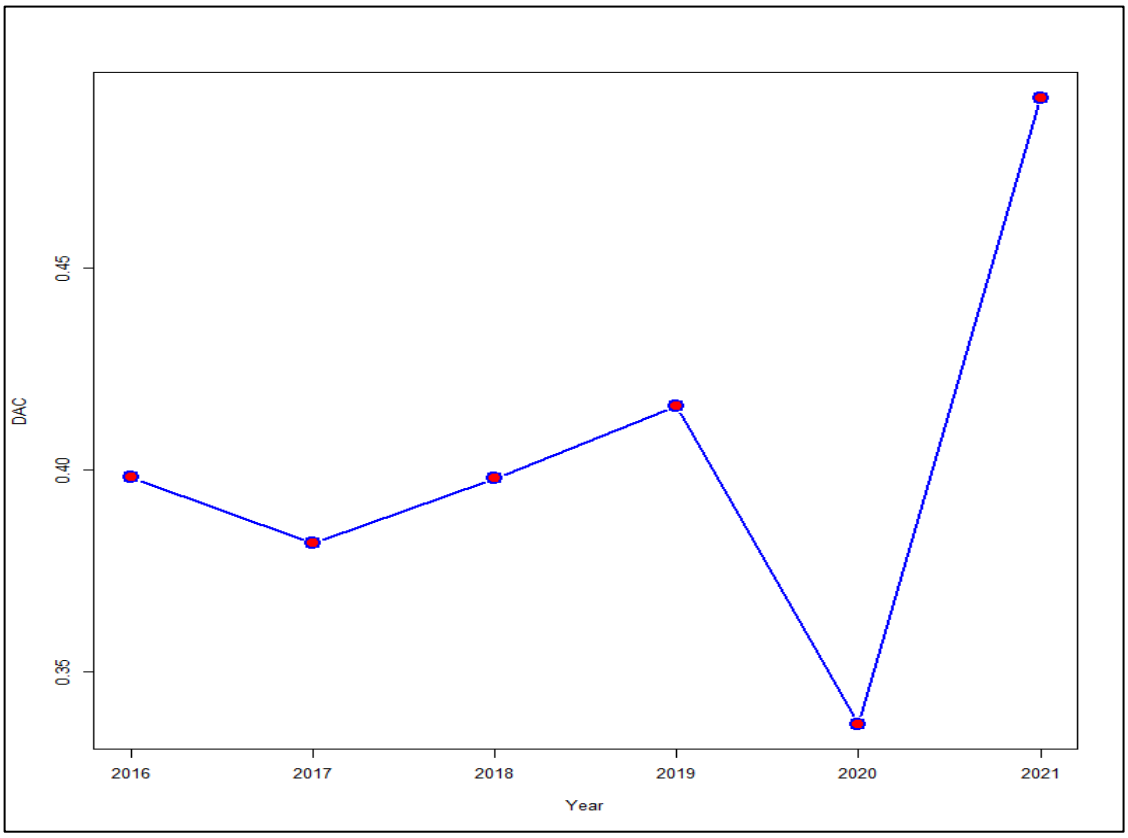
Linear Regression Analysis for ASE

Dependent Variable: "DAC"	Model 1 Fixed effect				Model 2 Random effect				Hausman Test	VIF
Independent Variables	**Beta**	**SD**	**P**	**R^2/AR^2**	**Beta**	**SD**	**P**	**R^2/AR^2**		
IND_AC	0.105	0.113	0.354		0.101	0.113	0.37			1.18
GD_AC	2.59	0.991	0.01		2.558	0.983	0.009			1.09
MEET_AC	-0.028	0.047	0.55		-0.028	0.047	0.545			1.25
EXP_AC	0.314	0.219	0.154		0.306	0.218	0.161			1.24
				0.096/0.029				0.096/0.029	0.816	
SIZ_AC	0.012	0.073	0.868		0.024	0.072	0.739			1.13
FI_SIZE	-0.241	0.112	0.032		-0.237	0.111	0.033			1.39
CFO	0.014	0.005	0.003		0.013	0.005	0.004			1.09
FLEV	0.094	0.043	0.031		0.097	0.042	0.022			1.19

Note: Significant at p-value less than 0.05.

Figure (3)

Trend of DAC from 2016 to 2021 in ASE



4.6.3 Linear Regression Analysis for QSE

We performed two models (fixed effects model and random effects model) to examine the impact of the independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) on the dependent variable (Earnings Management). Subsequently, we used the Hausman test to select the best model. If the Hausman test p-value was greater than 0.05, a random effects model was employed; otherwise, a fixed effects model was used. Importantly, no collinearity problems were found using VIF.

We chose to interpret the random effects model, as the p-value of the Hausman test (p = 0.977) exceeded the significance level of 0.05. According to the results of the linear regression analysis presented in Table 8, gender diversity (-3.515, p < 0.001) has a statistically significant negative effect on earnings management behavior. This implies that an increase in gender diversity will lead to a reduction in earnings management behavior in listed Qatari industrial companies, aligning with previous studies (Galal et al., 2022; Aldamen et al., 2018). Additionally, there is a negative but insignificant effect

of the independence of audit committee members (-0.288, p = 0.393), frequency of meetings (-0.237, p = 0.126), committee member experience (-0.935, p = 0.175), committee size (-0.224, p = 0.557), and operating cash flow (-0.019, p = 0.631) on earnings management behavior. These results are consistent with findings in previous studies (Abdeljawad, Al-Selkhi, & Abu-Ras, 2023; Phuong & Hong, 2021; Mardessi & Fourati, 2020; Musallam, 2020). Moreover, there is a positive effect of firm size and financial leverage on earnings management behavior, although these effects are insignificant.

The statistically significant negative effect of gender diversity on earnings management in Qatari industrial companies indicates that an increase in gender diversity reduces earnings management behavior. This highlights the importance of having female members in the audit committee, possibly due to their traits such as transparency, precision, conservatism, and strict adherence to rules. Females may also exhibit higher morality and more risk-averse attitudes than their male counterparts. Agency theory supports the idea that diverse perspectives in decision-making reduce agency problems. Stakeholder theory aligns with positive engagement reflecting stakeholders' interests and contributing to transparency.

The negative but nonsignificant effects of audit committee member independence, meeting frequency, committee member experience, committee size, and operating cash flow on earnings management align with agency theory, indicating that these factors may not be significantly effective in mitigating agency conflicts. Stakeholder theory posits that these factors may not strongly influence stakeholder motivations related to earnings management.

The positive effect of firm size and financial leverage on earnings management, although statistically insignificant, suggests potential risk factors associated with larger firm size and higher financial leverage. This finding appears to contradict agency theory, which posits that larger companies are expected to exhibit superior management. A high debt-to-assets ratio may escalate agency problems, highlighting potential conflicts of interest with stakeholders from a stakeholder theory perspective

Table (8)

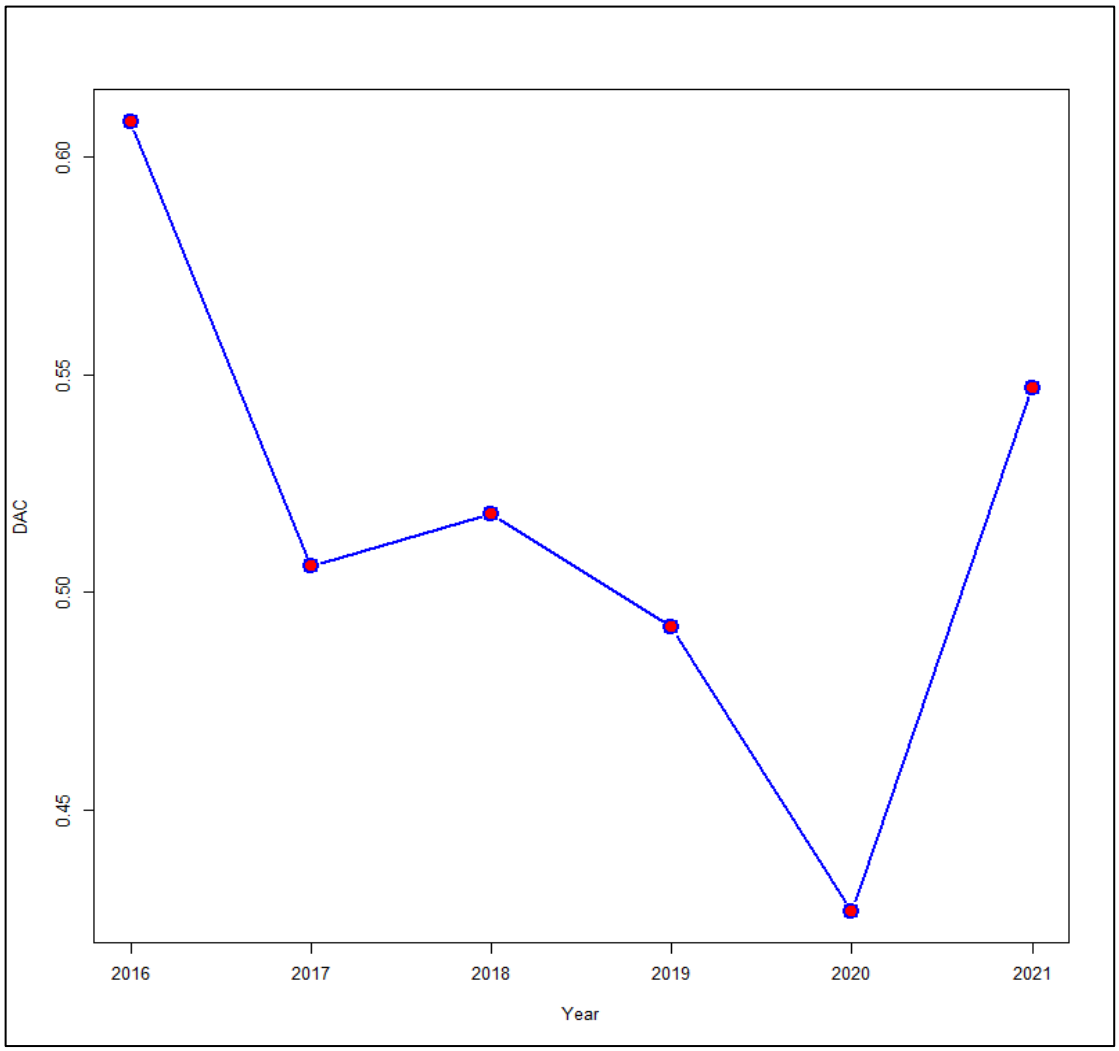
Linear Regression Analysis for QSE

Dependent Variable: "DAC"	Model 1 Fixed effect				Model 2 Random effect				Hausman Test	VIF
Independent Variables	**Beta**	**SD**	**P**	**R^2/AR^2**	**Beta**	**SD**	**P**	**R^2/AR^2**		
IND_AC	-0.336	0.345	0.336		-0.288	0.337	0.393			1.28
GD_AC	-3.675	0.788	<0.001		-3.515	0.756	<0.001			1.18
MEET_AC	-0.267	0.163	0.108		-0.237	0.155	0.126			1.34
EXP_AC	-0.835	0.953	0.386		-0.935	0.932	0.316			1.5
				0.421/0.245				0.421/0.245	0.977	
SIZ_AC	-0.156	0.4	0.698		-0.224	0.382	0.557			1.18
FI_SIZE	0.034	0.158	0.831		0.02	0.15	0.895			1.47
CFO	-0.026	0.041	0.536		-0.019	0.039	0.631			1.49
FLEV	0.073	0.314	0.817		0.031	0.305	0.918			1.89

Note: Significant at p-value less than 0.05.

Figure (4)

Trend of DAC from 2016 to 2021 in QSE



4.6.4 Linear Regression Analysis for KSE

The fixed effects model and the random effects model were conducted to assess the impact of independent variables (IND_AC, GD_AC, MEET_AC, EXP_AC, SIZ_AC) on the dependent variable (earnings management). Subsequently, we employed the Hausman test to determine the most suitable model. If the p-value from the Hausman test is greater than 0.05, we employ the random effects model; otherwise, if $p \leq 0.05$, we selected the fixed effects model. On the other hand, no collinearity problems were identified using (VIF).

We chose to interpret the random effects model based on the p-value of the Hausman test (p = 0.83), which was greater than 0.05. According to the linear regression analysis in Table 9, the results indicate a positive statistically significant effect of the independence of the audit committee (0.52, p = 0.012), the size of the audit committee (0.417, p = 0.034), and firm size (0.63, $p < 0.001$) on earnings management behavior. This implies that an increase in the independence of the audit committee, the size of the audit committee, and firm size will lead to an increase in earnings management behavior, contradicting the findings of studies by Fitri and Siswantoro (2022) and Setiawan et al. (2020). The contradiction in results may be attributed to differences in sample characteristics, contextual factors, or methodologies. On the other hand, there is a negative but statistically insignificant effect of gender diversity (-0.028, p = 0.974), frequency of meetings (-0.096, p = 0.285), expertise of members (-1.286, p = 0.107), and financial leverage (-0.064, p = 0.419) on earnings management behavior. This aligns with the findings of studies by Abdeljawad, Al-Selkhi, and Abu-Ras (2023), Phuong and Hong (2021), Musallam (2020), and Mardessi and Fourati (2020). Additionally, there is a positive but insignificant effect of cash flow from operating activities (0.003, p = 0.792) on earnings management behavior.

The significant positive effects of audit committee independence, audit committee size, and firm size on earnings management behavior can be explained from an agency theory perspective. In agency theory, monitoring mechanisms, such as independent audit committees and committees of larger sizes, are expected to mitigate agency problems through the alignment of the interests of managers and shareholders. However, the positive effects may indicate that these characteristics do not effectively prevent earnings management behavior in listed Kuwaiti industrial companies, indicating potential deficiencies in compliance with governance mechanisms. Additionally, this may be attributed to the lack of qualified members capable of achieving the committee's objectives.

Moreover, the negative but statistically insignificant effects of gender diversity, meeting frequency, member experience, and leverage may also align with agency theory perspective. Thus, it may indicate that these characteristics do not significantly influence agency conflicts in listed Kuwaiti industrial companies. It may also indicate, from the perspective of stakeholder theory, that these characteristics may not be strong

determinants of the motivations encouraged or desired by stakeholders for earnings management in listed Kuwaiti industrial companies. The positive but insignificant effect of cash flow from operating activities on earnings management may indicate that operating cash flow in listed Kuwaiti industrial companies does not exert a significant influence on managerial behavior related to earnings management, contrary to what might be expected from an agency theory perspective.

Table (9)

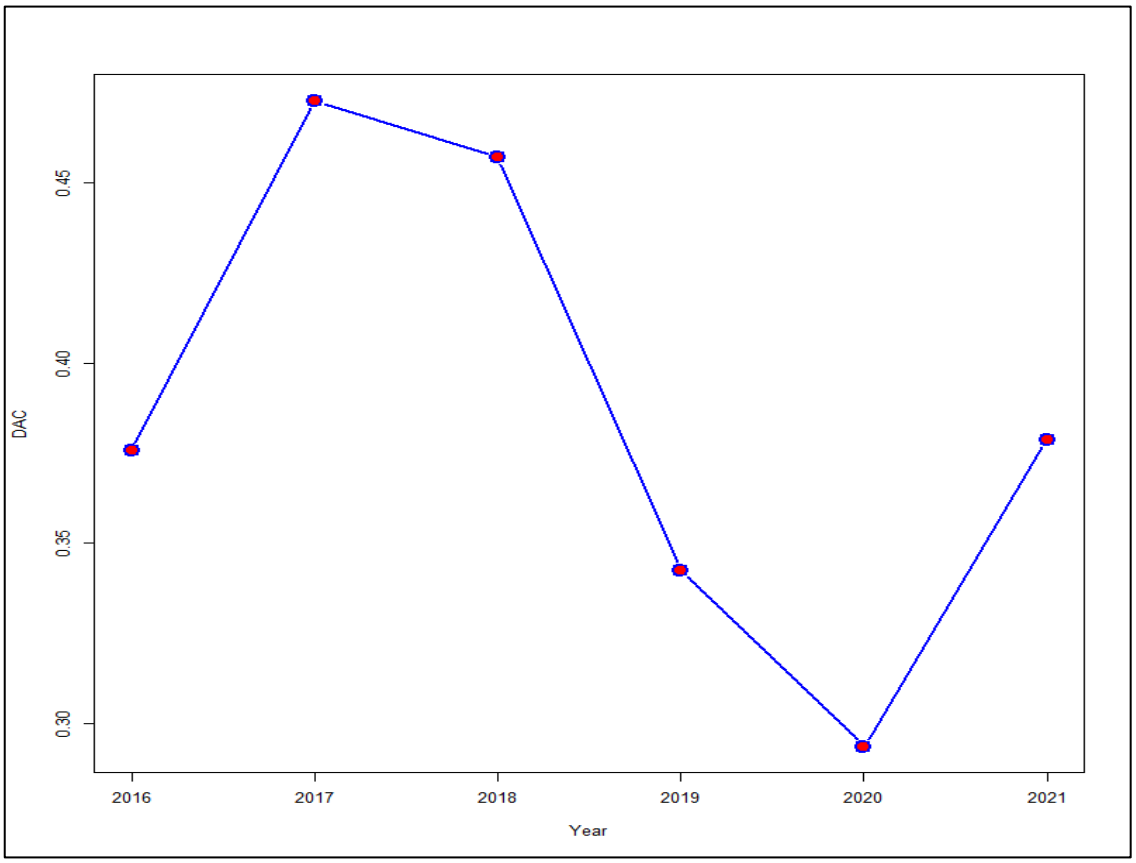
Linear Regression Analysis for KSE

Dependent Variable: "DAC"	Model 1 Fixed effect				Model 2 Random effect				Hausman Test	VIF
Independent Variables	**Beta**	**SD**	**P**	**R^2/AR^2**	**Beta**	**SD**	**P**	**R^2/AR^2**		
IND_AC	0.521	0.207	0.013		0.52	0.207	0.012			1.15
GD_AC	0.23	0.874	0.793		-0.028	0.86	0.974			1.25
MEET_AC	-0.123	0.091	0.179		-0.096	0.09	0.285			1.67
EXP_AC	-1.184	0.807	0.145		-1.286	0.799	0.107			1.06
				0.192/0.095				0.192/0.095	0.83	
SIZ_AC	0.432	0.197	0.031		0.417	0.197	0.034			1.26
FI_SIZE	0.643	0.169	<0.001		0.63	0.168	<0.001			1.3
CFO	0.005	0.012	0.673		0.003	0.012	0.792			1.39
FLEV	-0.065	0.08	0.424		-0.064	0.08	0.419			1.38

Note: Significant at p-value less than 0.05.

Figure (5)

Trend of DAC from 2016 to 2021 in KSE



4.7 Comparative Analysis of Audit Committee Characteristics Influencing Earnings Management in Listed Industrial Companies: Insights from Palestine, Jordan, Qatar, and Kuwait

4.7.1 Audit Committee Independence and Its Impact on Earnings Management

In the analysis of listed industrial companies in Kuwait, the independence of the audit committee showed a positive and statistically significant effect on earnings management behavior. This finding indicates that an increase in the independence of audit committee members in the Kuwaiti context is associated with an increase in earnings management, contradicting the perspective of agency theory. Similarly, a positive effect was observed in listed Jordanian industrial companies, but it is not statistically significant. However, it is not aligned with agency theory. This indicates that the independence of the audit committee may not necessarily lead to an increase in earnings management behavior in the Jordanian context. In contrast, there was a negative effect, albeit statistically insignificant, on earnings management behavior in listed industrial companies in both

Palestine and Qatar. Although consistent with agency theory, this effect did not significantly impact the reduction of earnings management behavior in the Palestinian and Qatari contexts.

In the Kuwaiti and Jordanian contexts, we note that the independence factor in the audit committee plays a weak role in limiting the behavior of earnings management, especially in the Kuwaiti context, despite its importance in the audit committee. Conversely, in the Palestinian and Qatari contexts, it was found that the role of independence does not significantly affect the reduction of earnings management. Accordingly, there is a lack of commitment to governance regarding independence across the four countries, especially in the Kuwaiti context, followed by Jordan, then Palestine, and Qatar.

4.7.2 Gender Diversity on Audit Committee and Earnings Management

Regarding gender diversity, there was a statistically significant negative effect on earnings management behavior in the Qatari context, consistent with agency theory. This indicates that increasing gender diversity reduces earnings management behavior, thereby mitigating agency problems in the Qatari context. In contrast, a positive, statistically significant effect on earnings management was found in the Jordanian context. This indicates that earnings management tend to rise with increased gender diversity, which does not align with the interests of stakeholders from the perspective of stakeholder theory.

Additionally, in the Palestinian context, there was a negative, but not statistically significant, effect on earnings management behavior. This implies that gender diversity does not significantly influence earnings management behavior in the Palestinian context. However, in the Kuwaiti context, a positive but not statistically significant effect on earnings management behavior emerged, indicating that gender diversity does not necessarily increase earnings management behavior in Kuwait. Accordingly, the importance of the presence of a female in the audit committee in depressing earnings management behavior appears in the Qatari context and also in the Palestinian context, although it does not have a significant impact. Notably, in the Jordanian and Kuwaiti contexts, the presence of a female played a weak and negative role in limiting earnings management behavior, especially in the Jordanian context. In summary, there is significant interest in the presence of a female member of the Audit Committee in the

Qatari context, followed by Palestine, with very weak interest in the Jordanian context, followed by Kuwait.

4.7.3 Frequency of Meetings and Earnings Management

In the context of the four countries, there was a negative effect of the frequency of meetings on earnings management behavior, although it was not statistically significant. However, this finding aligns with agency theory, indicating that increasing the frequency of audit committee meetings does not significantly impact the reduction in earnings management behavior in the four countries. While it may play a positive role in protecting the interests of stakeholders from the perspective of stakeholder theory, its effectiveness is limited. Therefore, there is a need for stricter compliance with governance mechanisms regarding the frequency of audit committee meetings, along with efforts to increase accountability and ensure the presence of qualified members capable of transparently fulfilling their tasks.

4.7.4 Expertise of Audit Committee and Earnings Management

In the Palestinian context, there was a statistically significant negative effect of the experience of audit committee members on earnings management behavior. This indicates from the perspective of agency theory that increasing the experience factor of members of the audit committee reduces agency problems in the Palestinian context, in addition to protecting the interests of stakeholders according to the stakeholder theory. Moreover, in the Qatari and Kuwaiti context there is a negative but not statistically significant effect on earnings management behavior. Although it is consistent with stakeholder theory, it does not necessarily protect the interests of stakeholders, nor does it have a significant impact on reducing agency problems according to agency theory. However, in the Jordanian context, it was found that there was a positive but not significant effect on earnings management. Indicating that experience does not necessarily increase profit management in the Jordanian context.

Accordingly, the experience of the members of the Audit Committee plays an important role in limiting the behavior of earnings management in the Palestinian, Qatari and Kuwaiti context, especially in the Palestinian context. With the weak factor of experience in reducing profits management in the Jordanian context. Therefore, it is necessary to adhere to governance with regard to the presence of expertise among members of the

audit committee to reduce agency problems and protect stakeholders. In summary, the experience factor played a pivotal role in reducing earnings management behavior mainly in Palestine, followed by Qatar and Kuwait, and then Jordan.

4.7.5 Audit Committee Size and Earnings Management

In the Palestinian and Kuwaiti contexts, the size of the audit committee has a positive, statistically significant effect on earnings management. This implies that earnings management tends to rise when the size of the audit committee increases. Additionally, it indicates that the size of the audit committee does not mitigate agency problems or protect the interests of shareholders, as supposed by agency theory. In the Jordanian context, the size of the audit committee also shows a positive but not statistically significant effect on earnings management. However, this finding is inconsistent with the expectations of agency theory. In the Qatari context, the size of the audit committee has a negative, though not statistically significant, effect on earnings management. Although this aligns with stakeholder theory, it does not effectively safeguard the interests of stakeholders.

In general, the size factor in the audit committee does not play a pivotal role in limiting earnings management in the Palestinian, Kuwaiti and Jordanian context, especially in the Palestinian and Kuwaiti context. Additionally, the size factor in the Qatari context was good, but it may not necessarily influence earnings management behavior; in other words, it was not significant. Accordingly, there is a need to strengthen accountability and commitment to governance rules regarding the size of the audit committee. Moreover, the competence, experience, and ability of committee members to carry out their assigned duties must be taken into account. In summary, the size of the audit committee emerges as a weak factor in limiting earnings management behavior in the Palestinian and Kuwaiti contexts, followed by Jordan and then Qatar.

4.8 Summary

We observed that the independence of the audit committee has a positive and statistically significant effect on earnings management behavior in industrial companies listed on the Kuwait Stock Exchange. This implies that earnings management tends to increase with the rising independence of the audit committee in the Kuwaiti context. Additionally, a positive but not statistically significant effect of audit committee independence on earnings management behavior in the Jordanian context and for the group. Conversely,

we found that the independence of the audit committee had a negative, albeit not statistically significant, effect on earnings management behavior in the Palestinian and Qatari markets.

Moreover, gender diversity exhibited a statistically significant negative effect on earnings management behavior in industrial companies listed on the Qatar Stock Exchange and for the group countries. This indicates that profit management tends to decrease with increasing gender diversity. This can be explained by the observation that females may exhibit higher levels of morality, conservatism, and adherence to rules compared to males. On the contrary, a statistically significant positive effect of gender diversity on earnings management behavior was discovered in the Jordanian context, indicating that an increase in gender diversity may lead to an increase in earnings management behavior in Jordan. Additionally, there is a positive effect of gender diversity on earnings management behavior in the Palestinian context and a negative effect in the Kuwaiti context, but these effects are not statistically significant.

In countries as a group, a statistically significant negative effect emerged regarding the frequency of audit committee meetings on earnings management behavior. This suggests that an increase in meeting frequency is associated with a decrease in earnings management. Furthermore, in the Palestinian, Jordanian, Qatari, and Kuwaiti contexts, the frequency of meetings showed a negative but not statistically significant effect on earnings management behavior.

While a statistically significant negative effect of the experience of audit committee members on earnings management behavior was discovered in the Palestinian context and for the group, indicating that profit management tends to decrease as the experience of audit committee members increases. It was also found that the experience of audit committee members has a positive effect on earnings management behavior in the Jordanian context and a negative effect in the Qatari and Kuwaiti contexts; however, these effects are not statistically significant. It is surprising that the size of the audit committee has a positive and statistically significant effect on earnings management behavior in the Palestinian and Kuwaiti contexts as well as for the group. This indicates that a larger committee size increases earnings management behavior. Additionally, the size of the audit committee has a positive effect on earnings management behavior in the Jordanian

context and a negative effect in the Qatari context, but these effects are not statistically significant. These findings highlight the variation in the impact of corporate governance factors, as determined by the audit committee characteristics, on earnings management across different stock exchanges. This emphasizes the importance of considering regional context and regulatory environments. Table 10 illustrates the type of influence of the audit committee characteristics on earnings management in each country.

Table (10)

Summary of the Impact of AC Characteristics on EM in Each Country

Impact	IND_AC	GD_AC	MEET_AC	EXP_AC	SIZ_AC
Group Countries	Positive	Negative & sig.	Negative & sig.	Negative & sig.	Positive & sig.
PEX	Negative	Positive	Negative	Negative & sig.	Positive & sig.
ASE	Positive	Positive & sig.	Negative	Positive	Positive
QSE	Negative	Negative & sig.	Negative	Negative	Negative
KSE	Positive & sig.	Negative	Negative	Negative	Positive & sig.

Chapter Five

Conclusions and Recommendations

5.1 Introduction

After reviewing the theoretical framework for each variable in this study, an empirical study was conducted and the hypotheses were tested. It is against this background that the results and recommendations are determined.

5.2 Conclusions

AC characteristics play a critical role in influencing earnings management. As the linchpin of corporate governance, the AC is established to ensure the implementation of appropriate systems and methods for the effective operation of the company. It works with internal and external auditors in an effort to protect the interests of stakeholders, particularly shareholders. Ensuring that earnings manipulation is prevented is only one of the tasks within the oversight purview of the committee. Therefore, the AC must perform its duties with due diligence. This requires the appointment of directors who are not only qualified and experienced, but also responsible. Furthermore, the AC's commitment to transparency and compliance with ethical standards are essential elements in reducing earnings management. Committees that take a proactive stance tend to implement strong internal controls, effective risk management strategies and rigorous oversight mechanisms. By fostering a culture of accountability, the AC not only sets the framework for responsible financial practices but also sets the organizational method for ethical behavior. This commitment applies to all levels of management and contributes to an environment where stakeholders can have confidence in the integrity of decision-making and financial reporting processes. The effectiveness of the AC is critical, as its failure can lead to a corresponding breakdown in organizational structures, controls and systems.

Given that ACs usually play a prominent role in addressing financial issues related to risks, this study seeks to investigate whether the characteristics of the AC can affect reducing earnings management behavior in industrial companies listed on the PEX, the ASE, the QSE, and the KSE. To determine this effect, linear regression coefficients are the analytical tool of choice. The study included data from 76 listed companies for the period from 2016 to 2021, forming a data set with a total of 456 observations. AC independence, gender diversity, frequency of meetings, committee financial experience,

and committee size were independent variables in this study. In addition, a modified Jones model was used to calculate discretionary accruals as a proxy for earnings management. While firm size, operating cash flows, and financial leverage are represented as control variables.

Upon testing the hypotheses, the findings reveal that gender diversity, the frequency of audit committee meetings, and the experience of audit committee members have a negative and statistically significant effect on earnings management behavior. This implies that there is a tendency for earnings management to reduce with an increase in these characteristics. Agency theory supports these results, as it reduces agency problems and preserves shareholders' interests by aligning the interests of shareholders and management, thus protecting the interests of stakeholders from the perspective of stakeholder theory.

Conversely, there were positive and significant effects of audit committee member size and operating cash flow on earnings management behavior. This indicates that earnings management increases when audit committee member size and cash flows from operating activities increase. It appears that larger committee sizes and abundant cash flow in listed industrial companies in the four countries may not necessarily be consistent with agency problems. Additionally, there is a positive effect for audit committee independence, firm size, and financial leverage on earnings management behavior, although these effects are not statistically significant.

The findings of this study will be useful to auditors and stock exchanges in Palestine, Amman, Qatar and Kuwait. Additionally, the results of this study may also be useful to the Associations of Certified Public Accountants (ACPA), the Board of Auditing Professions (BOAP) and other stakeholders interested in this research, as well as relevant regulatory bodies. EM behaviors can be reduced to improve the quality of financial reporting by enhancing external auditing, establishing strong ACs, and adopting conservative accounting principles.

5.3 Recommendations

Based on the conclusions of this paper, we offer some of the following recommendations:

1. The firms' commitment to apply the laws of the Corporate Governance Code and corporate laws, especially with regard to the independence of the audit committee and the size of the audit committee members.
2. The regulators should work to enhance the oversight over the companies in terms of corporate governance practices, especially those related to audit committees and thus ensure their efficiency.
3. Investing in continuous training and development programs for members of the AC and developing their skills and abilities in reducing and detecting earnings management behavior.
4. Ensure that the AC consists of independent directors with diverse skills and experience.
5. Transparency and accountability for the disclosure of correct information in companies, in accordance with the provisions of the Companies Law and regulators. Furthermore, regulators must ensure the companies compliance with the adopted accounting standards, which would control companies' use of earnings management. Accordingly, the rights of the stakeholders, including the shareholders, are protected.
6. Create an environment in which there is open and transparent communication between the AC and key stakeholders, including shareholders, regulators and internal management. Timely communication can help in early detection and resolution of earnings management issues.
7. Conduct regular and comprehensive risk assessments to identify areas vulnerable to earnings management. Therefore, it is important for the AC to play a proactive role in supervising the effectiveness of internal control and risk management processes to reduce the possibility of manipulation.
8. Establishing penalties for companies that mislead stakeholders by misrepresenting or distorting their profits. This is to make the financial statements trustworthy, credible and fair.

By implementing and adhering to these recommendations, the AC can contribute significantly to preventing and detecting EM, maintaining the integrity of financial reporting and maintaining stakeholder confidence.

5.4 Limitations

Although research on AC characteristics and EM is useful for understanding the dynamics of corporate governance and financial reporting, it may face some limitations. A major study limitation is the unavailability of data and/or difficulty to obtain it, especially on certain characteristics of audit committees that were among the important characteristics in the previous literature. Accordingly, important characteristics such as the legal qualification of the members of the audit committee were ignored, even though this may have an impact on earnings management behavior. In the same context, some companies do not include any information on their audit committees in their annual reports, violating the corporate governance code and corporate laws, especially in the Palestinian context. Highlighting the need for efficient regulation existence, and companies must take the initiative to improve their disclosure. Despite these limitations, research on AC characteristics and EM remains critical to improving our understanding of corporate governance practices and their impact on financial reporting integrity. Therefore, researchers should be aware of these limitations and exercise caution when drawing general conclusions from specific studies.

5.5 Future Studies

After conducting research on audit committee characteristics and earnings management, several avenues for future research can contribute to a deeper understanding of this complex relationship. Below are some suggestions for future research. More characteristics, such as the age and remuneration of audit committee members, may be included to verify whether there is any relationship with EM. Moreover, an important variable, i.e., the external audit quality, should be considered, given its important effect on the objectives of the audit committee and the quality of the companies' financial reporting and disclosure. Furthermore, more companies from other countries should be considered in future studies. Thus, additional observations are included, and the effect of differences between countries, in terms of cultural, economic, and regulatory factors on the nexus between audit committee characteristics and earnings management, is

estimated. Moreover, it is beneficial to consider the effect of the differences between countries in terms of surrounding factors on the relationships addressed in this study, given the important influence they play on the accounting choices (Alia, 2010; Alia & Branson, 2011).

By exploring these proposed pathways, researchers can deepen their understanding of the complex relationship between AC characteristics and EM, thereby providing valuable information to the academic and corporate governance communities.

List of Abbreviations

Abbreviation	Meaning
AC's	Audit Committees
ACPA	Associations of Certified Public Accountants
ASE	Amman Stock Exchange
BOD’s	Board of Directors
BOAP	Board of Auditing Professions
CMA	Capital Markets Authority
CEO	A chief Executive Officer
CFO	Cash Flows from Operating
CV	Control Variable
DAC	Discretionary Accruals
DV	Dependent Variable
EM	Earnings Management
EXP_AC	Financial Expertise of Audit Committee
PEX	Palestine Stock Exchange
PCMA	Palestinian Capital Market Authority
PACPA	Palestinian Associations of Certified Public Accountants
PPE	Property, Plant, & Equipment
QSE	Qatar Stock Exchange
QFMA	Qatar Financial Markets Authority
QCSD	Qatar Central Securities Depository
QFC	Qatar Financial Centre
KSE	Kuwait Stock Exchange
GAAP	Generally Accepted Accounting Principles
GCG	Good Corporate Governance
IND_AC	Independence of Audit Committee Member’s
GD_AC	Gender Diversity of the Audit Committee
MEET_AC	Frequency of Meetings
SIZ_AC	Size of the Audit Committee
FI_SIZE	Firm Size
FLEV	Financial Leverage
E	The error term
IV	Independent Variable
NDAs	Non-Discretionary Accruals
TA	Total Accruals
REV	Revenue
NI	Net Income
REC	Receivables
VIF	Variance Inflation Factor
JACPA	Jordanian Associations of Certified Public Accountants
IFRS	International Financial Reporting Standards
JSC	Jordan Securities Commission

References

Abbadi, S. (2016). Corporate Governance Quality and Earnings Management: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal, 10*(2), 54-75. doi:10.14453/aabfj.v10i2.4.

Abdeljawad, I., Alia, M.A. (2023). The Impact of Earnings Management on Unexpected Stock Returns: Palestinian Evidence. In: Alareeni, B., Hamdan, A. (eds) Explore Business, Technology Opportunities and Challenges After the Covid-19 Pandemic. *ICBT 2022*. Lecture Notes in Networks and Systems, vol 495. Springer, Cham. https://doi.org/10.1007/978-3-031-08954-1_55.

Abdeljawad, I., Abu Alia, M., & Demaidi, M. (2023). Financing constraints and corporate investment decision: evidence from an emerging economy. *Competitiveness Review: An International Business Journal*, 34(1), 208-228. https://doi.org/10.1108/CR-02-2023-0033.

Abdeljawad, I., Al-Selkhi, J., Abu-Ras, W. (2023). Audit Committee and Tax Avoidance: An Empirical Study on Palestinian Corporations. In: Alareeni, B., Hamdan, A., Khamis, R., Khoury, R.E. (eds) Digitalisation: Opportunities and Challenges for Business. *ICBT 2022*. Lecture Notes in Networks and Systems, vol 621. Springer, Cham. https://doi.org/10.1007/978-3-031-26956-1_26.

Abdeljawad, I., Oweidat, G., & Moh, N. (2020). Audit committee versus other governance mechanisms and the effect of investment opportunities: evidence from Palestine. *Corporate Governance, 20*(3), 527-544. doi:org/10.1108/CG-06-2019-0185.

Abu Alia, M., & Awwad, O. (2022). The effect of corporate governance and disclosure quality on information asymmetry in PEX. *An-Najah University Journal for Research - B (Humanities), 36*(3), 3.

Abu Alia, M., Ismail, R., Takrore, N., & Taha, B. (2019). The Relationship between Accounting Conservatism and Earnings Management in the Palestinian Corporations Listed on PEX. *Al-Aqsa University Journal, 24*(2), 55-79. doi:10.34065/1262-024-002-003.

Abu Alia, M., Abdeljawad, I., & Yaaqbeh , M. (2020). Depressing earnings management in Palestinian corporations: the role of audit quality, audit committee, and accounting conservatism. *International Journal of Revenue Managemen, 11*(3), 213-232. doi:10.1504/IJRM.2020.109419.

Abu Saleem, K. (2019). The Impact of Audit Committee Characteristics on the Creative Accounting Practices Reduction in Jordanian Commercial Banks. *Modern Applied Science, 13*(6), 113-123. doi:org/10.5539/mas.v13n6p113.

Abughniem, M., Al Aishat, M., & Hamdan, A. (2020). Free Cash Flow and Firm Performance: Empirical Evidence from the Amman Stock Exchange. *International Journal of Innovation, Creativity and Change, 10*(12), 668-681. Retrieved from https://www.ijicc.net/images/vol10iss12/101205_Manal_2020_E_R.pdf.

Aburisheh, K., Dahiyat, A., & Owais, W. (2022). Impact of cash flow on earnings management in Jordan. *Cogent Business & Managemen, 9*(1), 1-16. doi:org/10.1080/23311975.2022.2135211.

Advisory and Legislation Bureau. (2021). *Palestinian Companies Law No.42 of 2021*. Retrieved from https://www.lab.pna.ps/ar/Category/24/%D8%A7%D8%B9%D8%AF%D8%A7%D8%AF.

Afza, T., & Nazir, M. (2014). Audit Quality and Firm Value: A Case of Pakistan. *Research Journal of Applied Sciences, Engineering and Technology, 7*(9), 1803-1810. doi:10.19026/rjaset.7.465.

Akporien, F. (2021). Corporate Governance Mechanism and Earnings Management Practices. A Study of Listed Consumer Goods Firms. *European Journal of Accounting, Finance and Investment, 7*(12).

Aldamen, H., Hollindale, J., & Ziegelmayer, J. (2018). Female Audit Committee Members and their Influence on Audit Fees. *Accounting and Finance, 58*(1), 57-89. doi:org/10.1111/acfi.12248.

Alqaraleh, M., & Nour, A.-N. (2020). The Impact of the Audit Committee on the Timeliness of the Annual Financial Reports in Jordanian Companies Listed in the

Amman Stock Exchange. *International Journal of Critical Accounting, 11*(4), 287-298. doi:10.1504/IJCA.2020.110320.

Al Manaseer, M., Al-Hindawi , R., Al-Dahiyat, M., & Sartawi , I. (2012). The Impact of Corporate Governance on the Performance of Jordanian Banks. *European Journal of Scientific Research, 67*(3), 349-359.

Albersmann , B., & Hohenfels, D. (2017). Audit Committees and Earnings Management – Evidence from the German Two-Tier Board System. *Schmalenbach Business Review, 18*(2), 147-178. doi:10.1007/s41464-017-0028-9.

Alhassan, I., Gololo, I., & Islam, A. (2019). Audit Committee and Earnings Management in Quoted Manufacturing Firms in Nigeria. *The Millennium University Journal, 4*(1), 45-55.

Ali, U., Noor, M., Khurshid, M., & Mahmood, A. (2015). Impact of Firm Size on Earnings Management: A Study of Textile Sector of Pakistan. *European Journal of Business and Management, 7*(28), 47-56. doi:org/10.2139/ssrn.2698317.

Alia, M. (2010). The impact of environmental factors on the adoption of international financial reporting standards (IFRSs) in the Arab world (Unpublished PhD Thesis). Vrije University of Brussels.

Alia, M. A., Abdeljawad, I., Jallad, S. E., & Rashid, M. (2022). Voluntary disclosure-cost of equity nexus and the moderating role of corporate governance: Evidence from an extremely politically unstable context. *International Journal of Islamic and Middle Eastern Finance and Management*, 15, 1035–1052.

Alia, M. A., & AbuSarees, A. (2023). Reducing Cost of Capital. Do Voluntary Disclosure and Accounting Conservatism Contribute? *FIIB Business Review*, 23197145221145753. doi:https://doi.org/10.1177/23197145221145753

Alia, M. A., Amarneh, K., & Abdeljawd, I. (2023). The Relevance of IFRS Accounting Information: Evidence from a Pure IFRS Environment. *An-Najah University Journal for Research - B (Humanities), 38*(5).

Alia, M. A., Asmar, M., & Ali, F. H. (2023). The relationship between disclosure quality and firm performance: Evidence from companies listed in Palestine exchange. In International Conference on Business and Technology (pp. 660–669). Springer.

Alia, M. A., & Barham, O. (2020). The Effect of Earnings Management and Corporate Governance on the Relationship between Corporate Social Responsibility Disclosure of Companies Listed on Palestine Exchange (PEX) and the Value of the Company. *An-Najah University Journal for Research-B (Humanities)*, 36(11), 2313-2358.

Alia, M., & Branson, J. (2011). Environmental obstacles associated with the adoption of IFRSs in the Arab world: Evidence from Jordan. *World of Accounting Science (Muhasebe Bilim Dünyası Dergisi)*, 13(1), 23–85.

Alkdai, H., & Hanefah, M. (2012). Audit committee characteristics and earnings management in Malaysian Shariah-compliant companies. *Business and Management Review, 2*(2), 52-61. Retrieved from http://www.businessjournalz.org/bmr.

Allam, B. (2018). The impact of board characteristics and ownership identity on agency costs and firm performance: UK evidence. *Corporate Governance, 18*(6), 1147-1176. doi:org/10.1108/CG-09-2016-0184.

Alqatamin, R. (2018). Audit Committee Effectiveness and Company Performance: Evidence from Jordan. *Accounting and Finance Research, 7*(2), 48-60. doi:10.5430/afr.v7n2p48.

Al-Rassas, A., & Kamardin , H. (2015). Internal and External Audit Attributes, Audit Committee Characteristics, Ownership Concentration and Earnings Quality: Evidence from Malaysia . *Mediterranean Journal of Social Sciences, 6*(3), 458-470. doi:10.5901/mjss.2015.v6n3p458.

Al-Sayani, Y., Nor, M., & Amran, N. (2020). The influence of audit committee characteristics on impression management in chairman statement: Evidence from Malaysia. *Cogent Business & Management, 7*(1), 1-19. doi:org/10.1080/23311975.2020.1774250.

Al-Shaer, H., Salama, A., & Toms, S. (2017). Audit committees and financial reporting quality: Evidence from UK environmental accounting disclosures. *Journal of Applied Accounting Research, 18*(1), 2-21. doi:org/10.1108/JAAR-10-2014-0114.

Alves, S. (2013). The impact of audit committee existence and external audit on earnings management. *Journal of Financial Reporting and Accounting, 11*(2), 143-165. doi:org/10.1108/JFRA-04-2012-0018.

Alzeban, A., & Sawan, N. (2015). The impact of audit committee characteristics on the implementation of internal audit recommendations. *Journal of International Accounting, Auditing and Taxation, 24*, 61-71. doi:org/10.1016/j.intaccaudtax.2015.02.005.

Alzoubi , E. (2019). Audit committee, internal audit function and earnings management: evidence from Jordan. *Meditari Accountancy Research, 27*(1), 72-90. doi:org/10.1108/MEDAR-06-2017-0160.

Amin, A., Lukviarman, N., Suhardjanto, D., & Setiany, E. (2018). Audit Committee Characteristics and Audit- Earnings Quality: Empirical Evidence of the Company with Concentrated Ownership. *Review of Integrative Business and Economics Research, 7*(1), 18-33.

Ammer, M., & Ahmad-Zaluki , N. (2017). The Role of the Gender Diversity of Audit Committees in Modelling the Quality of Management Earnings Forecasts of Initial Public Offers in Malaysia. *Gender in Management, 32*(6), 420-440. doi:org/10.1108/GM-09-2016-0157.

Amri, K., Douagi, F., & Guedrib, M. (2022). The impact of internal and external corporate governance mechanisms on tax aggressiveness: evidence from Tunisia. *Journal of Accounting in Emerging Economies*. doi:10.1108/jaee-01-2021-0019.

Anderson, R., Mansib, S., & Reeb, D. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics, 37*(3), 315-342. doi:org/10.1016/j.jacceco.2004.01.004.

Asa'd, I.A.A., Nour, A., Atout, S. (2023). The Impact of Financial Performance on Firm's Value During Covid-19 Pandemic for Companies Listed in the Palestine Exchange (2019–2020). In: Musleh Al-Sartawi, A.M.A., Razzaque, A., Kamal, M.M. (eds) From the Internet of Things to the Internet of Ideas: The Role of Artificial Intelligence. *EAMMIS 2022*. Lecture Notes in Networks and Systems, vol 557. Springer, Cham. https://doi.org/10.1007/978-3-031-17746-0_42.

Association of Legal Accountants. (2022). Retrieved February 5, 2024, from DAR-ALSHARQ GROUP: https://al-sharq.com/.

Ayemere, I., & Elijah, A. (2015). Audit Committee Attributes and Earnings Management: Evidence from Nigeria. *International Journal of Business and Social Research, 5*(4), 14-23.

Be´dard, J., Chtourou, S., & Courteau, L. (2004). The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management. *A Journal of Practice & Theory, 23*(2), 13-35. doi:org/10.2308/aud.2004.23.2.13

Bhasin, M., & Shaikh , J. (2012). Corporate governance through an audit committee: an empirical study. *Managerial and Financial Accounting, 4*(4), 340-365. doi:10.1504/IJMFA.2012.049676.

Bicer , A., & Feneir, I. (2019). The Impact of Audit Committee Characteristics on Environmental and Social Disclosures: Evidence from Turkey. *International Journal of Research in Business and Social Science, 8*(3), 111-121. doi:10.20525/ijrbs.v8i3.262.

Chandrasegaram, R., Rahimansa, M., Rahman, S., Abdullah, S., & Mat, N. (2013). Impact of Audit Committee Characteristics on Earnings Management in Malaysian Public Listed Companies . *International Journal of Finance and Accounting, 2*(2), 114-119. doi:10.5923/j.ijfa.20130202.11.

Chariri, A., & Januarti, I. (2017). Audit Committee Characteristics and Integrated Reporting: Empirical Study of Companies Listed on the Johannesburg Stock Exchange. *European Research Studies Journal, 20*(4), 305-318.

Corporate Governance Guide. (2013). *Kuwait Finance House.* Retrieved April 5, 2023, from http://www.transparency.org.kw.au-ti.org/upload/books/460.pdf.

Corporate Governance National Committee. (2009). *www.hawkama.ps.* Retrieved November 20, 2022, from hawkama: http://www.hawkama.ps/Pages/ContactUs.aspx.

Corporate Governance System. (2009). *almeezan.* Retrieved April 5, 2023, from www.almeezan.qa:https://www.almeezan.qa/LawView.aspx?opt&LawID=3652&language=ar.

Dechow, P., & Sloan, R. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of Accounting and Economics, 14*(1), 51-89. doi:org/10.1016/0167-7187(91)90058-S.

Dechow, P., Sloan, R., & Sweeney, A. (1995). Detecting Earnings Management. *The Accounting Review, 70*(2), 193-225. Retrieved from http://www.jstor.org/stable/248303.

DeFond, M., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics, 17*(1-2), 145-176. doi:org/10.1016/0165-4101(94)90008-6.

Deslandes, M., Fortin, A., & Landry , S. (2020). Audit committee characteristics and tax aggressiveness. *Managerial Auditing Journal, 35*(2), 272-293. doi:org/10.1108/MAJ-12-2018-2109.

Egwanwor, C., & Thomas, I. (2022). Audit Committee and Earnings Management: Evidence From Listed Healthcare Companies In Nigeria. *International Journal of Business & Law Research, 10*(1), 32-47.

Firdaus, A., BZ, F., & Diantimala, Y. (2018). The Influence of Good Corporate Governance and Corporate Social Responsibility towards the Financial Performance that has Implications for Firm Value of Banking Companies Listed in Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences, 8*(4), 166-177. doi:10.6007/IJARBSS/v8-i4/4005.

Fitri, V., & Siswantoro, D. (2022). Can corporate governance mechanisms reduce earnings-management practices in Islamic banks? *Journal of Islamic Accounting and Business Research, 13*(1), 16-31. doi:org/10.1108/JIABR-04-2019-0081.

Galal, H., Soliman, M., & Bekheit, M. (2022). The Relation between Audit Committee Characteristics and Earnings Management: Evidence from Firms Listed on the Egyptian Stock Market. *American Journal of Industrial and Business Management, 12*, 1439-1467. doi:10.4236/ajibm.2022.129080.

Gavious, I., Segev, E., & Yosef, R. (2012). Female Directors and Earnings Management in High-Technology Firms. *Pacific Accounting Review, 24*(1), 4-32. doi:10.1108/01140581211221533.

Governance Instructions For Listed Stock Companies. (2017). *Securities Depository Center*. Retrieved December 13, 2022, from Corporate Governance: https://sdc.com.jo/arabic/images/stories/pdf/corporate_gov.pdf.

Green, C., & Homroy, S. (2018). Female Directors, Board Committees and Firm Performance. *European Economic Review, 102*, 19-38. doi:org/10.1016/j.euroecorev.2017.12.003.

Ha, H. (2022). Audit committee characteristics and corporate governance disclosure: evidence from Vietnam listed companies. *Cogent Business & Management, 9*(1), 1-31. doi:org/10.1080/23311975.2022.2119827.

Habib, A., & Bhuiyan, M. (2016). Problem directors on the audit committee and financial reporting quality. *Accounting and Business Research, 46*(2), 121-144. doi:org/10.1080/00014788.2015.1039477.

Hamdan, A., Mushtaha, S., & Al-Sartawi, A. (2013). The Audit Committee Characteristics and Earnings Quality: Evidence from Jordan. *Australasian Accounting Business and Finance Journal, 7*(4), 51-80. doi:10.14453/aabfj.v7i4.5.

Hasan, S., Jatiningrum, C., Fauzi, F., & Abdul-Hamid, M. (2019). The Moderating Effect Of Audit Quality On Audit Committee And Financial Reporting Quality In Malaysia.

Opcion, *35*(19), 2899-2921. Retrieved from https://produccioncientificaluz.org/index.php/opcion/article/view/29680.

Healy, P. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, *7*(1-3), 85-107. doi:org/10.1016/0165-4101(85)90029-1

Herranz, C., Alvarado, N., & Iturriaga, F. (2022). Audit Committee Competence and Earnings Management in Europe. *Revista de Contabilidad - Spanish Accounting Review*, *25*(1), 121-135. doi:org/10.6018/rcsar.385331.

Inaam, Z., & Khamoussi , H. (2016). Audit committee effectiveness, audit quality and earnings management: a meta-analysis. *International Journal of Law and Management*, *58*(2), 179-196. doi:org/10.1108/IJLMA-01-2015-0006.

Ioualalen , L., Khemakhem, H., & Fontaine, R. (2015). The Impact of Audit Committee Characteristics on Earnings Management: A Canadian Case Study. *Case Studies in Business and Management*, *2*(1), 78-96. doi:10.5296/csbm.v2i1.7901.

Isa, M., & Farouk, M. (2018). A Study Of The Effect Of Diversity In The Board And The Audit Committee Composition On Earnings Management For Low And High Leveraged Banks In Nigeria. *Journal of Accounting, Finance and Auditing Studies, 4*(1), 14-39.

Isa, M., & Musa, F. (2018). The Moderating Effect of Audit Committee on the Relationship between Board Diversity and Earnings Management of Banks in Nigeria. *Iranian Journal of Accounting, Auditing and Finance, 2*(1). doi:10.22067/IJAAF.V2I1.68363.

Jalal, G., Alkoni, S., Nour, A.I. (2023). Impact of Board Characteristics on the Corporate Dividends Payout: Evidence from Palestinian Stock Market. In: Alareeni, B., Hamdan, A. (eds) Explore Business, Technology Opportunities and Challenges After the Covid-19 Pandemic. *ICBT 2022*. Lecture Notes in Networks and Systems, vol 495.pp550-569. Springer, Cham. https://doi.org/10.1007/978-3-031-08954-1_49.

Jatiningrum, C., Fauzi, Irviani, R., Mujiyati, & Hasan, S. (2020). An Investigation on The Effect of Audit Committee on Financial Reporting Quality In Pre and Post IFRS

Adoption: Evidence From Malaysian Companies. *Humanities & Social Sciences Reviews, 8*(2), 25-35. doi:org/10.18510/hssr.2020.824.

Jiang, W., Lee , P., & Anandarajan, A. (2008). The association between corporate governance and earnings quality: Further evidence using the GOV-Score. *Advances in Accounting, 24*(2), 191-201. doi:org/10.1016/j.adiac.2008.08.011.

Jones, J. (1991). Earnings Management During Import Relief Investigations. *Journal of Accounting Research, 29*(2), 193-228. doi:org/10.2307/2491047.

Jebreen, K., & Ghattas, B. (2016). Bayesian Network Classification: Application to Epilepsy Type Prediction Using PET Scan Data. *International Conference on Machine Learning and Applications (ICMLA)* (pp. 965-970). Anaheim, CA, USA: IEEE . doi:10.1109/ICMLA.2016.0174.

Jebreen, K. (2017). Modèles graphiques pour la classification et les séries temporelles. (Unpublished Doctoral dissertation). Aix-Marseille University, Marseille, France.

Jebreen, K., Nawaf, M., Barham, A., & Ghattas, B. (2021). Inferring linear and nonlinear Interaction networks using neighborhood support vector machines. *International Conference on Engineering and Emerging Technologies (ICEET)* (pp. 1-6). Istanbul, Turkey: IEEE. doi:10.1109/ICEET53442.2021.9659576.

Juhmani, O. (2017). Audit Committee Characteristics and Earnings Management: The Case of Bahrain. *International Journal of Accounting and Financial Reporting, 7*(1), 11-31. doi:10.5296/ijafr.v7i1.10447.

Kasznik, R. (1999). On the Association Between Voluntary Disclosure and Earnings Management. *Journal of Accounting Research, 37*(1), 57-81. doi:10.2307/2491396.

Kibiya, M., Ahmad, A., & Amran, N. (2016). Audit Committee Independence, Financial Expertise, Share Ownership and Financial Reporting Quality: Further Evidence from Nigeria. *International Journal of Economics and Financial Issues, 6*(7), 125-131. Retrieved from https://www.econjournals.com/index.php/ijefi/article/view/3593.

Klein, A. (2002). Audit Committee, Board of Director Characteristics, and Earnings Management. *Journal of Accounting and Economics, 33*(3), 375-400. doi:org/10.2139/ssrn.246674.

Krishnan, J., & Lee, J. (2009). Audit Committee Financial Expertise, Litigation Risk, and Corporate Governance. *A Journal of Practice and Theory, 28*(1), 241-261. doi:org/10.2308/aud.2009.28.1.241.

Kuwait Accountants and Auditors Association. (2023). Retrieved February 5, 2024, from Laws and Legislations: https://www.kwaaa.org/?page_id=1893.

Lakhal, F., Aguir, A., Lakhal, N., & Malek, A. (2015). Do Women On Boards And In Top Management Reduce Earnings Management? Evidence In France. *Journal of Applied Business Research, 31*(3), 1107-1118. doi:org/10.19030/jabr.v31i3.9236.

Lary, A., & Taylor, D. (2012). Governance characteristics and role effectiveness of audit committees. *Managerial Auditing Journal, 27*(4), 336–354. doi:org/10.1108/02686901211217969.

Lin, J., & Hwang, M. (2010). Audit Quality, Corporate Governance, and Earnings Management: A Meta-Analysis. *International Journal of Auditing, 14*(1), 57-77. doi:org/10.1111/j.1099-1123.2009.00403.x.

Mardessi, S., & Fourati, Y. (2020). The Impact of Audit Committee on Real Earnings Management: Evidence from the Netherlands. *Corporate Governance and Sustainability Review, 4*(1), 33-46. doi:10.22495/cgsrv4i1p3.

Mazurina , A., Syarifah , S., Najwa , B., & Nor, M. (2017). Audit Committee Characteristics, Risk Management Committee and Financial Restatements. *Advanced Science Letters, 23*, 287-291. doi:10.1166/asl.2017.7160.

Meek, G., Rao, R., & Skouse, C. (2007). Evidence on factors affecting the relationship between CEO stock option compensation and earnings management. *Review of Accounting and Finance, 6*(3), 304-323. doi:org/10.1108/14757700710778036.

Metawee, A. (2013). The relationship between characteristics of audit committee, board of directors and level of earning management, Evidence from Egypt. *Journal of International Business and Finance, 6*, 1-34.

Mishra, M., & Malhotra, A. (2016). Audit Committee Characteristics and Earnings Management: Evidence from India. *International Journal of Accounting and Financial Reporting, 6*(2), 247-273. doi:org/10.5296/ijafr.v6i2.10008.

Musallam, S. (2020). Effects of board characteristics, audit committee and risk management on corporate performance: evidence from Palestinian listed companies. *International Journal of Islamic and Middle Eastern Finance and Management, 13*(4), 691-706. doi:org/10.1108/IMEFM-12-2017-0347.

Nelwan, M., & Tansuria, B. (2019). Audit committee characteristics and earnings management practices. *Journal of Economics, Business, and Accountancy Ventura, 22*(1), 85-97. doi:10.14414/jebav.v22i1.1400.

Nguyen, Q. (2022). Audit Committee Structure, Institutional Quality, and Bank Stability: Evidence from ASEAN Countries. *Finance Research Letters, 46*(2). doi:10.1016/j.frl.2021.102369.

Niresh, J., & Silva, W. (2018). The Nexus between Corporate Social Responsibility Disclosure and Financial Performance: Evidence from the Listed Banks, Finance and Insurance Companies in Sri Lanka. *Accounting and Finance Research, 7*(2), 65-82. doi:10.5430/afr.v7n2p65.

Nour, Abdulnaser; Bouqalieh, Bassam; and Okour, Samer (2022), "The impact of institutional governance mechanisms on the dimensions of the efficiency of intellectual capital and the role of the size of the company in the Jordanian Shareholding industrial companies, *An-Najah University Journal for Research - B (Humanities)*: Vol. 36: Iss. 10, Article 6. PP 2181 – 2212 https://digitalcommons.aaru.edu.jo/anujr_b/vol36/iss10/6.

Nour, A., Nour, M., Alqaraleh, M., & Al-Attar, K. (2020). The Impact of the Board of Directors on the Timeliness of Financial Reporting in the Jordanian Companies

Listed in the Amman Stock Exchange. *International Journal of Innovation, Creativity and Change, 14*(1), 826-838.

Nwanji, T., & Howell, K. (2007). Shareholdership, stakeholdership and the modern global business environment: A survey of the literature. *The Journal of Interdisciplinary Economics, 18*(4), 347-461. doi:10.1177/02601079X07001800406

Obermire, K., Cohenb, J., & Zehmsc, K. (2021). Audit committee members' professional identities: Evidence from the field. *Accounting, Organizations and Society, 93*. doi:org/10.1016/j.aos.2021.101242.

Oroud, Y. (2019). The Effect of Audit Committee Characteristics on the Profitability: Panel Data Evidence. *International Journal of Economics and Finance, 11*(4), 104-113. doi:org/10.5539/ijef.v11n4p104.

Persons , O. (2009). Audit committee characteristics and earlier voluntary ethics disclosure among fraud and no-fraud firms. *International Journal of Disclosure and Governance, 6*, 284–297. doi:org/10.1057/jdg.2008.29.

Phuong, D., & Hong, A. (2021). Relationship Between the Audit Committee and Earning Management in Listed Companies in Vietnam. *Journal of Asian Finance, Economics and Business, 8*(2), 135-142. doi:10.13106/jafeb.2021.vol8.no2.0135.

Puspita, T., Azwardi, A., & Fuadah, L. (2020). The Effect of Committees Under the Board of Commissioners, Profitability and Inventory Intensity on Tax Aggressiveness (The Empirical Study of Manufacturing Companies Listed on the Indonesia Stock Exchange 2014-2018). *Institute of Accounting and Finance, 87*(1), 114-122. doi:10.33146/2307-9878-2020-1(87)-114-122.

Qader, B., Yusoff, W., Barzinji, Z., Basri, H., & Salleh, M. (2022). Audit committee Characteristics and Financial ReportingQuality in Iraq Public Listed Firm. *Social Science Journal, 13*(1), 2455-2468.

Rajeevan, S., & Ajward, R. (2020). Board characteristics and earnings management in Sri Lanka. *Journal of Asian Business and Economic Studies, 27*(1), 2-18. doi:10.1108/JABES-03-2019-0027.

Ross, A., & Crossan, K. (2012). A review of the influence of corporate governance on the banking crises in the United Kingdom and Germany. *Corporate Governance, 12*(2), 215-225. doi:org/10.1108/14720701211214098.

Safitri, M., Kustono, A., & Miqdad, M. (2018). Audit Quality and Earnings Management: Review and Synthesis of Empirical Evidence. *International Journal of Management, Accounting and Economics, 5*(9), 738-750.

Salleh, N., & Haat, M. (2014). Audit Committee and Earnings Management: Pre and Post MCCG. *International Review of Management and Business Research, 3*(1), 307-318.

Salloum, C., Azzia, G., & Gebrayel, E. (2014). Audit Committee and Financial Distress in the Middle East Context: Evidence of the Lebanese Financial Institutions. *International Strategic Management Review, 2*, 39-45. doi:org/10.1016/j.ism.2014.09.001.

Saona, P., Muro, L., Baier-Fuentes, H., & San Martín, P. (2019). Board of Director's Gender Diversity and Its Impact on Earnings Management: An Empirical Analysis for Select European Firms. *Technological and Economic Development of Economy, 25*(4), 634–663. doi:org/10.3846/tede.2019.9381.

Setiawan, D., Trinugroho, I., Phua, L., & Chee , H. (2020). The effect of audit committee characteristics on earnings management: the case of Indonesia. *Afro-Asian J. Finance and Accounting, 10*(4), 447-463. doi:10.1504/AAJFA.2020.10029472.

Siagian, D., & Siregar, S. (2018). The Effect of Audit Committee Financial Expertise And Relative Status On Earnings Management: Case of Indonesia. *Jurnal Akuntansi, 22*(3), 321-336. doi:10.24912/ja.v22i3.391.

Singto, W., & Precious, A. (2021). Audit Committee Composition And Earnings Management Of Listed Consumer Goods Manufacturing Firms In Nigeria. *International Journal of Innovative Finance and Economics Research, 9*(4), 76-87.

Soliman, M., & Ragab, A. (2014). Audit Committee Effectiveness, Audit Quality and Earnings Management: An Empirical Study of the Listed Companies in Egypt. *Research Journal of Finance and Accounting, 5*(2), 155-165.

Sudarman, W., & Hidayat, W. (2019). Audit Committee and Earnings Management: The Role of Gender. *Jurnal Akuntansi*, *23*(3), 379-392. doi:org/10.24912/ja.v23i3.603.

Sun, J., Liu, G., & Lan, G. (2011). Does Female Directorship on Independent Audit Committees Constrain Earnings Management? *Journal of Business Ethics*, *99*, 369–382 . doi:org/10.1007/s10551-010-0657-0.

Susanto, Y. (2016). The Effect of Audit Committees and Corporate Governance on Earnings Management: Evidence from Indonesia Manufacturing Industry. *International Journal of Business, Economics and Law, 10*(1), 32-37.

Umar, A., & Hassan, S. (2018). Institutional shareholding moderator to audit committee characteristics and earnings management of listed conglomerate firms in Nigeria. *Scholedge International Journal of Business Policy & Governance, 4*(10), 98-115. doi:10.19085/journal.sijbpg041001.

Umobung, A., & Ibanichuka, E. (2017). Audit Committee Attributes and Financial Reporting Quality of Food and Beverage Firms in Nigeria. *International Journal of Innovative Social Sciences & Humanities Research, 5*(2), 1-13.

Velte, P. (2018). Is audit committee expertise connected with increased readability of integrated reports: Evidence from EU companies. *Problems and Perspectives in Management, 16*(2), 23-41. doi:org/10.21511/ppm.16(2).2018.03.

Woolley, A., Aggarwal, I., & Malone, T. (2015). Collective Intelligence and Group Performance. *Current Directions in Psychological Science, 24*(6), 420-424. doi:org/10.1177/0963721415599543.

Yasser, Q., & Al Mamun, A. (2016). Audit committee structure and earnings management in Asia Pacific. *Economics and Business Review, 2*(16), 66-84. doi:10.18559/ebr.2016.1.5.

Yew, O. (2013). Audit Committee Characteristics and Earnings Management: a Malaysian Context. Petaling Jaya, Malaysia: Master dissertation/thesis, UTAR. Retrieved from http://eprints.utar.edu.my/id/eprint/824.

Young, S. (1999). Systematic Measurement Error in the Estimation of Discretionary Accruals: An Evaluation of Alternative Modelling Procedures. *Journal of Business Finance & Accounting, 26*(7-8), 833-862. doi:10.1111/1468-5957.00277.

Zalata, A., Tauringana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earnings management: Does gender of the financial expert matter? *International Review of Financial Analysis, 55,* 170-183. doi:org/10.1016/j.irfa.2017.11.002.

Appendices

Appendix (A)

Descriptive statistics by Group Years for country: PEX

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
DAC		DAC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.84 b
Mean ± Std-Dev	0.43±0.23	Mean ± Std-Dev	0.39 ± 0.2	0.42 ± 0.2	0.39 ± 0.2	0.43 ± 0.2	0.43 ± 0.3	0.52 ± 0.2	
Median (Q1-Q3)	0.42(0.26-0.6)	Median (Q1-Q3)	0.4 (0.22-0.52)	0.41 (0.29-0.6)	0.34 (0.26-0.5)	0.43 (0.3-0.5)	0.47 (0.22-0.62)	0.5 (0.39-0.68)	
Min, Max	0.04,0.89	Min, Max	0.1, 0.8	0.1, 0.7	0, 0.8	0.1, 0.8	0, 0.8	0, 0.9	
IND_AC		IND_AC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	1.00 d
Mean ± Std-Dev	0.66±0.29	Mean ± Std-Dev	0.66 ± 0.3	0.66 ± 0.3	0.66 ± 0.3	0.66 ± 0.3	0.66 ± 0.3	0.66 ± 0.3	
Median (Q1-Q3)	0.66(0.33-1)	Median (Q1-Q3)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.33-1)	
Min, Max	0.33,1	Min, Max	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	
GD_AC		GD_AC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.07 d
Mean ± Std-Dev	0.01±0.05	Mean ± Std-Dev	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.05 ± 0.1	
Median (Q1-Q3)	0(0-0)	Median (Q1-Q3)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	
Min, Max	0,0.33	Min, Max	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0.3	
MEET_AC		MEET_AC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.93 d
Mean ± Std-Dev	3.59±1.11	Mean ± Std-Dev	3.27 ± 1.2	3.73 ± 1.5	3.73 ± 1.5	3.36 ± 1.1	3.64 ± 0.7	3.82 ± 0.4	
Median (Q1-Q3)	4(3-4)	Median (Q1-Q3)	4 (3-4)	4 (3.5-4)	4 (3.5-4)	4 (3-4)	4 (3.5-4)	4 (4-4)	
Min, Max	1,7	Min, Max	1, 4	1, 7	1, 7	1, 4	2, 4	3, 4	
EXP_AC		EXP_AC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.87 d
Mean ± Std-Dev	0.72±0.14	Mean ± Std-Dev	0.73 ± 0.1	0.73 ± 0.1	0.73 ± 0.1	0.69 ± 0.2	0.73 ± 0.1	0.73 ± 0.1	
Median (Q1-Q3)	0.66(0.66-0.73)	Median (Q1-Q3)	0.66 (0.66-0.71)	0.66 (0.66-0.71)	0.66 (0.66-0.71)	0.66 (0.66-0.66)	0.66 (0.66-0.71)	0.66 (0.66-0.71)	
Min, Max	0.5,1	Min, Max	0.7, 1	0.7, 1	0.7, 1	0.5, 1	0.7, 1	0.7, 1	
SIZ_AC		SIZ_AC							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.87 d
Mean ± Std-Dev	3.05±0.41	Mean ± Std-Dev	3.09 ± 0.3	3.09 ± 0.3	3.09 ± 0.3	2.91 ± 0.5	3 ± 0.4	3.09 ± 0.5	

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
Median (Q1-Q3)	3(3-3)	Median (Q1-Q3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	
Min, Max	2,4	Min, Max	3, 4	3, 4	3, 4	2, 4	2, 4	2, 4	
FI_SIZE		FI_SIZE							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.49 d
Mean ± Std-Dev	7.48±0.63	Mean ± Std-Dev	7.33 ± 0.5	7.29 ± 0.7	7.56 ± 0.7	7.59 ± 0.7	7.53 ± 0.6	7.6 ± 0.6	
Median (Q1-Q3)	7.69(7.32-7.85)	Median (Q1-Q3)	7.51 (7.09-7.7)	7.54 (6.82-7.8)	7.75 (7.38-7.83)	7.76 (7.38-7.86)	7.8 (7.37-7.87)	7.82 (7.46-7.98)	
Min, Max	6.02,8.98	Min, Max	6.2, 7.9	6.2, 7.9	6.1, 8.9	6, 9	6, 8.1	6, 8.2	
CFO		CFO							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.46 d
Mean ± Std-Dev	-2.19±25.56	Mean ± Std-Dev	1.94 ± 2.9	0.42 ± 0.6	-10.75 ± 44.8	3.29 ± 9.2	-9.67 ± 43.8	1.62 ± 2.5	
Median (Q1-Q3)	0.81(0.3-1.31)	Median (Q1-Q3)	0.96 (0.7-1.86)	0.34 (0.11-0.79)	0.72 (0.34-1.32)	0.7 (0.19-1.11)	0.88 (0.39-1.36)	0.97 (0.56-1.68)	
Min, Max	-144.76,30.86	Min, Max	-0.2, 10.1	-0.6, 1.6	-144.8, 19.5	-2, 30.9	-139.9, 25.6	-0.5, 8.7	
FLEV		FLEV							
n (miss)	66(0)	n (miss)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	11 (0)	0.81 d
Mean ± Std-Dev	0.45±0.39	Mean ± Std-Dev	0.32 ± 0.1	0.35 ± 0.1	0.37 ± 0.1	0.37 ± 0.2	0.72 ± 0.8	0.56 ± 0.4	
Median (Q1-Q3)	0.32(0.25-0.53)	Median (Q1-Q3)	0.3 (0.24-0.4)	0.29 (0.26-0.5)	0.33 (0.24-0.48)	0.32 (0.28-0.45)	0.34 (0.24-0.84)	0.44 (0.26-0.75)	
Min, Max	0.02,2.6	Min, Max	0.1, 0.6	0.2, 0.6	0.2, 0.6	0.1, 0.6	0.1, 2.6	0, 1.3	

Descriptive statistics by Group Years for country: ASE

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
DAC		DAC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.14 d
Mean ± Std-Dev	0.4±0.31	Mean ± Std-Dev	0.4 ± 0.4	0.38 ± 0.3	0.4 ± 0.3	0.42 ± 0.2	0.34 ± 0.2	0.49 ± 0.3	
Median (Q1-Q3)	0.38(0.24-0.52)	Median (Q1-Q3)	0.33 (0.2-0.47)	0.34 (0.25-0.46)	0.39 (0.26-0.49)	0.4 (0.26-0.47)	0.37 (0.17-0.49)	0.46 (0.36-0.71)	
Min, Max	-0.52,2.43	Min, Max	-0.1, 2.4	-0.1, 1.5	-0.2, 1.3	0.1, 1	-0.5, 0.8	-0.5, 1.2	
IND_AC		IND_AC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	1.00 d
Mean ± Std-Dev	0.69±0.3	Mean ± Std-Dev	0.68 ± 0.3	0.66 ± 0.3	0.7 ± 0.3	0.7 ± 0.3	0.68 ± 0.3	0.68 ± 0.3	
Median (Q1-Q3)	0.66(0.52-1)	Median (Q1-Q3)	0.66 (0.66-1)	0.66 (0.5-1)	0.66 (0.66-1)	0.66 (0.66-1)	0.66 (0.5-1)	0.66 (0.6-1)	
Min, Max	0,1	Min, Max	0, 1	0, 1	0, 1	0, 1	0, 1	0, 1	
GD_AC		GD_AC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.40 d
Mean ± Std-Dev	0.01±0.05	Mean ± Std-Dev	0 ± 0	0 ± 0	0.02 ± 0.1	0.02 ± 0.1	0.02 ± 0.1	0.01 ± 0.1	
Median (Q1-Q3)	0(0-0)	Median (Q1-Q3)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	
Min, Max	0,0.33	Min, Max	0, 0	0, 0	0, 0.3	0, 0.3	0, 0.3	0, 0.2	
MEET_AC		MEET_AC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.88 d
Mean ± Std-Dev	4.41±1.45	Mean ± Std-Dev	4.42 ± 1.9	4.45 ± 1.9	4.12 ± 1.3	4.64 ± 1.3	4.42 ± 1.2	4.42 ± 1	
Median (Q1-Q3)	4(4-5)	Median (Q1-Q3)	4 (4-5)	4 (4-5)	4 (4-4)	4 (4-5)	4 (4-5)	4 (4-5)	
Min, Max	0,13	Min, Max	0, 13	0, 13	1, 9	3, 8	2, 7	2, 7	
EXP_AC		EXP_AC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	1.00 d
Mean ± Std-Dev	0.76±0.26	Mean ± Std-Dev	0.76 ± 0.3	0.75 ± 0.3	0.75 ± 0.3	0.76 ± 0.2	0.77 ± 0.3	0.75 ± 0.2	
Median (Q1-Q3)	0.73(0.62-1)	Median (Q1-Q3)	1 (0.66-1)	0.71 (0.66-1)	0.75 (0.66-1)	0.66 (0.66-1)	1 (0.57-1)	0.66 (0.6-1)	

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
Min, Max	0.33,1	Min, Max	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	
SIZ_AC		SIZ_AC							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.26 d
Mean ± Std-Dev	3.35±0.8	Mean ± Std-Dev	3.18 ± 0.6	3.27 ± 0.9	3.33 ± 0.6	3.39 ± 0.9	3.36 ± 0.9	3.55 ± 0.9	
Median (Q1-Q3)	3(3-3)	Median (Q1-Q3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-4)	
Min, Max	3,7	Min, Max	3, 6	3, 7	3, 5	3, 7	3, 7	3, 6	
FI_SIZE		FI_SIZE							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	1.00 d
Mean ± Std-Dev	7.42±0.55	Mean ± Std-Dev	7.44 ± 0.5	7.44 ± 0.5	7.4 ± 0.6	7.42 ± 0.5	7.39 ± 0.6	7.41 ± 0.6	
Median (Q1-Q3)	7.44(7.21-7.89)	Median (Q1-Q3)	7.43 (7.22-7.93)	7.42 (7.23-7.94)	7.4 (7.22-7.85)	7.44 (7.26-7.8)	7.46 (7.2-7.8)	7.49 (7.19-7.83)	
Min, Max	5.76,8.19	Min, Max	6.1, 8.2	6.1, 8.2	5.9, 8.2	5.9, 8.2	5.8, 8.2	5.8, 8.2	
CFO		CFO							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.41 d
Mean ± Std-Dev	2.56±17.2	Mean ± Std-Dev	2.83 ± 19.1	0.43 ± 7.4	0.99 ± 9	6.51 ± 30.3	4.03 ± 19.2	0.55 ± 2.9	
Median (Q1-Q3)	0.76(-0.49-1.83)	Median (Q1-Q3)	1.11 (0.34-3.28)	0.42 (-0.69-2.15)	0.64 (-1.02-1.58)	0.42 (-1-2.02)	0.59 (-0.32-2.03)	0.89 (-0.38-1.67)	
Min, Max	-75.89,161.1	Min, Max	-75.9, 69.3	-29.4, 26.8	-24.6, 36.5	-22, 161.1	-13.7, 107.9	-7.6, 7.7	
FLEV		FLEV							
n (miss)	198(0)	n (miss)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	33 (0)	0.73 d
Mean ± Std-Dev	4.02±41.6	Mean ± Std-Dev	0.57 ± 0.6	0.63 ± 0.7	0.84 ± 1.2	1.9 ± 6.6	1.49 ± 3.5	18.68 ± 101.6	
Median (Q1-Q3)	0.44(0.21-0.86)	Median (Q1-Q3)	0.42 (0.19-0.65)	0.41 (0.2-0.73)	0.52 (0.26-0.84)	0.55 (0.21-0.87)	0.32 (0.22-1.06)	0.54 (0.23-1.2)	
Min, Max	0.02,584.75	Min, Max	0, 2.4	0, 3.2	0, 6.4	0, 38.4	0, 19.2	0, 584.8	

Descriptive statistics by Group Years for country: QSE

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
DAC		DAC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.67 d
Mean ± Std-Dev	0.52±0.31	Mean ± Std-Dev	0.61 ± 0.3	0.51 ± 0.3	0.52 ± 0.3	0.49 ± 0.3	0.43 ± 0.3	0.55 ± 0.3	
Median (Q1-Q3)	0.56(0.36-0.71)	Median (Q1-Q3)	0.66 (0.62-0.78)	0.59 (0.25-0.66)	0.55 (0.45-0.65)	0.5 (0.37-0.68)	0.49 (0.13-0.64)	0.62 (0.4-0.7)	
Min, Max	-0.09,1	Min, Max	0, 1	0, 0.9	0, 0.9	0, 1	-0.1, 0.9	0, 1	
IND_AC		IND_AC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	1.00 d
Mean ± Std-Dev	0.82±0.32	Mean ± Std-Dev	0.82 ± 0.3	0.82 ± 0.3	0.83 ± 0.3	0.8 ± 0.4	0.82 ± 0.3	0.83 ± 0.3	
Median (Q1-Q3)	1(0.66-1)	Median (Q1-Q3)	1 (0.74-1)	1 (0.74-1)	1 (0.74-1)	1 (0.74-1)	1 (0.74-1)	1 (0.74-1)	
Min, Max	0,1	Min, Max	0, 1	0, 1	0, 1	0, 1	0, 1	0, 1	
GD_AC		GD_AC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.72 d
Mean ± Std-Dev	0.09±0.19	Mean ± Std-Dev	0.03 ± 0.1	0.03 ± 0.1	0.1 ± 0.2	0.13 ± 0.2	0.12 ± 0.2	0.13 ± 0.2	
Median (Q1-Q3)	0(0-0)	Median (Q1-Q3)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.25)	0 (0-0.19)	0 (0-0.25)	
Min, Max	0,0.66	Min, Max	0, 0.3	0, 0.3	0, 0.7	0, 0.7	0, 0.7	0, 0.7	
MEET_AC		MEET_AC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.94 d
Mean ± Std-Dev	3.78±1.14	Mean ± Std-Dev	3.8 ± 1.7	3.4 ± 1.4	4.1 ± 0.7	3.8 ± 1.1	3.7 ± 0.9	3.9 ± 0.7	
Median (Q1-Q3)	4(4-4)	Median (Q1-Q3)	4 (4-4)	4 (3.25-4)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	
Min, Max	0,7	Min, Max	0, 7	0, 5	3, 6	2, 6	2, 5	2, 5	
EXP_AC		EXP_AC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	1.00 d
Mean ± Std-Dev	0.82±0.17	Mean ± Std-Dev	0.83 ± 0.2	0.83 ± 0.2	0.83 ± 0.2	0.79 ± 0.2	0.83 ± 0.2	0.83 ± 0.2	
Median (Q1-Q3)	0.73(0.66-1)	Median (Q1-Q3)	0.83 (0.66-1)	0.83 (0.66-1)	0.83 (0.66-1)	0.73 (0.66-1)	0.83 (0.66-1)	0.83 (0.66-1)	
Min, Max	0.5,1	Min, Max	0.7, 1	0.7, 1	0.7, 1	0.5, 1	0.7, 1	0.7, 1	
SIZ_AC		SIZ_AC							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.69 d
Mean ± Std-Dev	3.1±0.54	Mean ± Std-Dev	3.1 ± 0.3	3.1 ± 0.3	3 ± 0	3.4 ± 1.2	3.1 ± 0.3	2.9 ± 0.3	
Median (Q1-Q3)	3(3-3)	Median (Q1-Q3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	
Min, Max	2,6	Min, Max	3, 4	3, 4	3, 3	2, 6	3, 4	2, 3	
FI_SIZE		FI_SIZE							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.98 d
Mean ± Std-Dev	8.88±1.04	Mean ± Std-Dev	8.97 ± 0.9	8.98 ± 0.9	9.01 ± 0.9	8.7 ± 1.2	8.74 ± 1.3	8.87 ± 1.3	
Median (Q1-Q3)	9.11(8.58-9.61)	Median (Q1-Q3)	9.26 (8.8-9.56)	9.23 (8.82-9.56)	9.25 (8.87-9.57)	9.04 (8.64-9.56)	9.24 (8.04-9.66)	9.25 (8.67-9.69)	

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
Min, Max	6.43,10.06	Min, Max	6.7, 9.6	6.7, 9.6	6.7, 9.7	6.5, 9.7	6.4, 10	6.4, 10.1	
CFO		CFO							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.31 d
Mean ± Std-Dev	1.77±4.12	Mean ± Std-Dev	4.02 ± 6.9	1.69 ± 2.5	0.32 ± 1.7	2.14 ± 5.8	0.69 ± 1.9	1.77 ± 2.7	
Median (Q1-Q3)	0.85(0.18-1.17)	Median (Q1-Q3)	1.17 (0.53-1.21)	0.88 (0.71-1.16)	0.86 (0.31-1.15)	0.55 (-0.01-0.78)	0.45 (-0.47-0.98)	0.85 (0.6-1.96)	
Min, Max	-4.42,19.55	Min, Max	0.1, 19.6	0.1, 8.6	-4.4, 1.5	-0.5, 18.6	-1.3, 5	0, 9.2	
FLEV		FLEV							
n (miss)	60(0)	n (miss)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	10 (0)	0.56 d
Mean ± Std-Dev	0.59±0.58	Mean ± Std-Dev	0.78 ± 0.7	0.58 ± 0.5	0.6 ± 0.5	0.56 ± 0.6	0.5 ± 0.6	0.5 ± 0.6	
Median (Q1-Q3)	0.61(0.13-0.72)	Median (Q1-Q3)	0.78 (0.21-0.81)	0.58 (0.24-0.72)	0.68 (0.22-0.69)	0.6 (0.13-0.71)	0.38 (0.06-0.66)	0.34 (0.09-0.63)	
Min, Max	0,2.06	Min, Max	0, 2	0, 1.8	0, 1.9	0, 2	0, 2.1	0, 2	

Descriptive statistics by Group Years for country: KSE

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
DAC		DAC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.31 d
Mean ± Std-Dev	0.39±0.34	Mean ± Std-Dev	0.38 ± 0.4	0.47 ± 0.3	0.46 ± 0.3	0.34 ± 0.4	0.29 ± 0.3	0.38 ± 0.3	
Median (Q1-Q3)	0.31(0.1-0.6)	Median (Q1-Q3)	0.26 (0.09-0.55)	0.41 (0.24-0.66)	0.38 (0.22-0.56)	0.22 (0.06-0.76)	0.24 (0.05-0.48)	0.32 (0.1-0.63)	
Min, Max	-0.25,1.24	Min, Max	-0.2, 1.2	-0.1, 1.2	0.1, 1.2	-0.2, 1.1	-0.2, 1	-0.2, 0.9	
IND_AC		IND_AC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	1.00 d
Mean ± Std-Dev	0.59±0.27	Mean ± Std-Dev	0.59 ± 0.3	0.59 ± 0.3	0.59 ± 0.3	0.59 ± 0.3	0.59 ± 0.3	0.59 ± 0.3	
Median (Q1-Q3)	0.63(0.33-0.74)	Median (Q1-Q3)	0.63 (0.33-0.66)	0.63 (0.33-0.66)	0.58 (0.33-0.66)	0.58 (0.33-0.92)	0.53 (0.33-0.92)	0.53 (0.33-0.92)	
Min, Max	0.25,1	Min, Max	0.3, 1	0.3, 1	0.3, 1	0.2, 1	0.3, 1	0.3, 1	
GD_AC		GD_AC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.31 d
Mean ± Std-Dev	0.02±0.11	Mean ± Std-Dev	0 ± 0	0 ± 0	0 ± 0	0.05 ± 0.2	0.05 ± 0.2	0.03 ± 0.1	
Median (Q1-Q3)	0(0-0)	Median (Q1-Q3)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	
Min, Max	0,0.66	Min, Max	0, 0	0, 0	0, 0	0, 0.7	0, 0.7	0, 0.7	
MEET_AC		MEET_AC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.68 d
Mean ± Std-Dev	4.29±1.26	Mean ± Std-Dev	3.95 ± 0.7	4.55 ± 1.8	4.32 ± 1.1	4.27 ± 0.9	4.14 ± 0.8	4.5 ± 1.8	
Median (Q1-Q3)	4(4-4)	Median (Q1-Q3)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	
Min, Max	2,12	Min, Max	2, 6	4, 10	4, 9	4, 7	2, 6	2, 12	
EXP_AC		EXP_AC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.31 d
Mean ± Std-Dev	0.98±0.1	Mean ± Std-Dev	0.95 ± 0.2	0.97 ± 0.1	0.96 ± 0.1	1 ± 0	1 ± 0	1 ± 0	
Median (Q1-Q3)	1(1-1)	Median (Q1-Q3)	1 (1-1)	1 (1-1)	1 (1-1)	1 (1-1)	1 (1-1)	1 (1-1)	

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
Min, Max	0.33,1	Min, Max	0.3, 1	0.3, 1	0.3, 1	1, 1	1, 1	1, 1	
SIZ_AC		SIZ_AC							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.98 d
Mean ± Std-Dev	3.12±0.46	Mean ± Std-Dev	3.14 ± 0.5	3.14 ± 0.5	3.18 ± 0.7	3.09 ± 0.3	3.09 ± 0.4	3.09 ± 0.4	
Median (Q1-Q3)	3(3-3)	Median (Q1-Q3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	
Min, Max	3,6	Min, Max	3, 5	3, 5	3, 6	3, 4	3, 5	3, 5	
FI_SIZE		FI_SIZE							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	1.00 b
Mean ± Std-Dev	8.53±0.55	Mean ± Std-Dev	8.5 ± 0.5	8.52 ± 0.5	8.52 ± 0.5	8.55 ± 0.6	8.55 ± 0.6	8.55 ± 0.6	
Median (Q1-Q3)	8.5(8.08-8.82)	Median (Q1-Q3)	8.48 (8.06-8.79)	8.48 (8.07-8.8)	8.48 (8.13-8.79)	8.55 (8.15-8.87)	8.55 (8.16-8.83)	8.56 (8.15-8.83)	
Min, Max	7.39,9.97	Min, Max	7.7, 9.7	7.7, 9.8	7.6, 9.8	7.6, 9.8	7.5, 9.9	7.4, 10	
CFO		CFO							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.31 d
Mean ± Std-Dev	4.11±21.24	Mean ± Std-Dev	2.65 ± 6.7	2.2 ± 2.8	1.81 ± 1.7	1.74 ± 9.9	8.91 ± 40.7	7.33 ± 30.9	
Median (Q1-Q3)	1.19(-0.02-2.94)	Median (Q1-Q3)	1.31 (0.21-2.46)	1.51 (0.6-3.12)	1.24 (0.88-2.81)	1.56 (0.43-3.82)	-0.27 (-2.23-3)	0.87 (-0.58-2.36)	
Min, Max	-32.98,189.3	Min, Max	-4.4, 29.4	-1.2, 10.3	-0.4, 6.9	-33, 29.1	-9.5, 189.3	-3.4, 145.1	
FLEV		FLEV							
n (miss)	132(0)	n (miss)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	22 (0)	0.97 d
Mean ± Std-Dev	1.22±1.27	Mean ± Std-Dev	1.11 ± 1.1	1.19 ± 1.4	1.1 ± 1.2	1.19 ± 1.3	1.46 ± 1.4	1.29 ± 1.3	
Median (Q1-Q3)	0.61(0.32-2.03)	Median (Q1-Q3)	0.7 (0.33-1.38)	0.56 (0.32-1.98)	0.55 (0.32-1.85)	0.52 (0.3-2)	0.78 (0.35-2.3)	0.6 (0.32-2.08)	
Min, Max	0.11,6.09	Min, Max	0.1, 4.7	0.2, 6.1	0.2, 5	0.1, 5	0.2, 4.9	0.1, 4	

Descriptive statistics by Group Years for country: PEX-ASE-QSE-KSE

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
DAC		DAC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.21 d
Mean ± Std-Dev	0.42±0.31	Mean ± Std-Dev	0.42 ± 0.4	0.43 ± 0.3	0.43 ± 0.3	0.41 ± 0.3	0.35 ± 0.3	0.47 ± 0.3	
Median (Q1-Q3)	0.4(0.21-0.59)	Median (Q1-Q3)	0.36 (0.16-0.59)	0.38 (0.25-0.61)	0.39 (0.25-0.55)	0.4 (0.22-0.52)	0.37 (0.14-0.51)	0.46 (0.3-0.69)	
Min, Max	-0.52,2.43	Min, Max	-0.2, 2.4	-0.1, 1.5	-0.2, 1.3	-0.2, 1.1	-0.5, 1	-0.5, 1.2	
IND_AC		IND_AC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	1.00 d
Mean ± Std-Dev	0.67±0.3	Mean ± Std-Dev	0.67 ± 0.3	0.66 ± 0.3	0.68 ± 0.3	0.68 ± 0.3	0.67 ± 0.3	0.67 ± 0.3	
Median (Q1-Q3)	0.66(0.33-1)	Median (Q1-Q3)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.38-1)	0.66 (0.33-1)	0.66 (0.33-1)	0.66 (0.33-1)	
Min, Max	0,1	Min, Max	0, 1	0, 1	0, 1	0, 1	0, 1	0, 1	
GD_AC		GD_AC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.03 d
Mean ± Std-Dev	0.02±0.1	Mean ± Std-Dev	0 ± 0	0 ± 0	0.02 ± 0.1	0.04 ± 0.1	0.04 ± 0.1	0.04 ± 0.1	
Median (Q1-Q3)	0(0-0)	Median (Q1-Q3)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	
Min, Max	0,0.66	Min, Max	0, 0.3	0, 0.3	0, 0.7	0, 0.7	0, 0.7	0, 0.7	
MEET_AC		MEET_AC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.84 d
Mean ± Std-Dev	4.18±1.34	Mean ± Std-Dev	4.04 ± 1.5	4.24 ± 1.8	4.12 ± 1.2	4.24 ± 1.2	4.13 ± 1	4.29 ± 1.2	
Median (Q1-Q3)	4(4-4)	Median (Q1-Q3)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	4 (4-4)	
Min, Max	0,13	Min, Max	0, 13	0, 13	1, 9	1, 8	2, 7	2, 12	
EXP_AC		EXP_AC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	1.00 d
Mean ± Std-Dev	0.83±0.22	Mean ± Std-Dev	0.82 ± 0.2	0.82 ± 0.2	0.82 ± 0.2	0.82 ± 0.2	0.84 ± 0.2	0.83 ± 0.2	
Median (Q1-Q3)	1(0.66-1)	Median (Q1-Q3)	1 (0.66-1)	1 (0.66-1)	1 (0.66-1)	1 (0.66-1)	1 (0.66-1)	1 (0.66-1)	
Min, Max	0.33,1	Min, Max	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	0.3, 1	
SIZ_AC		SIZ_AC							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.91 d
Mean ± Std-Dev	3.21±0.64	Mean ± Std-Dev	3.14 ± 0.5	3.18 ± 0.6	3.21 ± 0.6	3.24 ± 0.8	3.2 ± 0.7	3.26 ± 0.7	
Median (Q1-Q3)	3(3-3)	Median (Q1-Q3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	3 (3-3)	
Min, Max	2,7	Min, Max	3, 6	3, 7	3, 6	2, 7	2, 7	2, 6	
FI_SIZE		FI_SIZE							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	1.00 b
Mean ± Std-Dev	7.94±0.88	Mean ± Std-Dev	7.93 ± 0.9	7.93 ± 0.9	7.96 ± 0.9	7.94 ± 0.9	7.93 ± 0.9	7.96 ± 0.9	
Median (Q1-Q3)	7.88(7.36-8.53)	Median (Q1-Q3)	7.88 (7.36-8.47)	7.89 (7.36-8.49)	7.87 (7.38-8.55)	7.86 (7.38-8.57)	7.86 (7.33-8.52)	7.88 (7.33-8.54)	

var	n(%)	var.1	2016	2017	2018	2019	2020	2021	P.value
Min, Max	5.76,10.06	Min, Max	6.1, 9.7	6.1, 9.8	5.9, 9.8	5.9, 9.8	5.8, 10	5.8, 10.1	
CFO		CFO							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.17 d
Mean ± Std-Dev	2.21±18.91	Mean ± Std-Dev	2.8 ± 13.2	1.11 ± 5.2	-0.56 ± 17.9	4.09 ± 20.9	3.02 ± 30.2	2.83 ± 16.8	
Median (Q1-Q3)	0.9(-0.04-2.03)	Median (Q1-Q3)	1.14 (0.38-2.5)	0.8 (-0.03-2.05)	0.98 (0.06-1.61)	0.78 (-0.06-2.17)	0.66 (-0.64-1.86)	0.88 (-0.09-1.88)	
Min, Max	-144.76,189.3	Min, Max	-75.9, 69.3	-29.4, 26.8	-144.8, 36.5	-33, 161.1	-139.9, 189.3	-7.6, 145.1	
FLEV		FLEV							
n (miss)	456(0)	n (miss)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	76 (0)	0.91 d
Mean ± Std-Dev	2.24±27.43	Mean ± Std-Dev	0.72 ± 0.8	0.74 ± 0.9	0.82 ± 1	1.3 ± 4.4	1.24 ± 2.4	8.63 ± 67	
Median (Q1-Q3)	0.47(0.24-0.87)	Median (Q1-Q3)	0.44 (0.23-0.78)	0.45 (0.25-0.73)	0.5 (0.27-0.78)	0.49 (0.24-0.84)	0.6 (0.23-1.15)	0.54 (0.23-1.19)	
Min, Max	0,584.75	Min, Max	0, 4.7	0, 6.1	0, 6.4	0, 38.4	0, 19.2	0, 584.8	

Appendix (B)

Correlation matrix for country = PEX

	DAC	IND_AC	GD_AC	MEET_AC	EXP_AC	SIZ_AC	FI_SIZE	CFO	FLEV
DAC	1(NA)	-0.23(0.059)	0.01(0.936)	-0.12(0.328)	-0.32(0.008)	0.26(0.033)	-0.44(<0.001)	0.17(0.174)	0.23(0.065)
IND_AC	-0.23(0.059)	1(NA)	0.12(0.352)	-0.16(0.199)	0.54(<0.001)	-0.09(0.471)	0.11(0.381)	0.22(0.075)	-0.34(0.005)
GD_AC	0.01(0.936)	0.12(0.352)	1(NA)	0.07(0.604)	-0.03(0.797)	0.17(0.182)	0.16(0.196)	-0.01(0.95)	-0.1(0.427)
MEET_AC	-0.12(0.328)	-0.16(0.199)	0.07(0.604)	1(NA)	-0.21(0.095)	0.08(0.546)	0.36(0.003)	0.04(0.777)	0.12(0.328)
EXP_AC	-0.32(0.008)	0.54(<0.001)	-0.03(0.797)	-0.21(0.095)	1(NA)	-0.12(0.353)	-0.09(0.471)	-0.05(0.689)	-0.1(0.407)
SIZ_AC	0.26(0.033)	-0.09(0.471)	0.17(0.182)	0.08(0.546)	-0.12(0.353)	1(NA)	0.03(0.828)	-0.01(0.961)	0.17(0.177)
FI_SIZE	-0.44(<0.001)	0.11(0.381)	0.16(0.196)	0.36(0.003)	-0.09(0.471)	0.03(0.828)	1(NA)	-0.02(0.886)	-0.2(0.115)
CFO	0.17(0.174)	0.22(0.075)	-0.01(0.95)	0.04(0.777)	-0.05(0.689)	-0.01(0.961)	-0.02(0.886)	1(NA)	-0.09(0.47)
FLEV	0.23(0.065)	-0.34(0.005)	-0.1(0.427)	0.12(0.328)	-0.1(0.407)	0.17(0.177)	-0.2(0.115)	-0.09(0.47)	1(NA)

Correlation matrix for country = ASE

	Year	DAC	IND_AC	GD_AC	MEET_AC	EXP_AC	SIZ_AC	FI_SIZE	CFO	FLEV
Year	1(NA)	0.12(0.089)	0.01(0.93)	0.11(0.116)	0.04(0.621)	0(0.947)	0.14(0.047)	-0.02(0.816)	-0.04(0.616)	0.17(0.017)
DAC	0.12(0.089)	1(NA)	0.11(0.119)	0.19(0.007)	-0.03(0.688)	0.07(0.295)	0.06(0.433)	0.05(0.456)	0.12(0.093)	0.13(0.06)
IND_AC	0.01(0.93)	0.11(0.119)	1(NA)	-0.03(0.633)	-0.19(0.007)	-0.07(0.313)	-0.05(0.472)	0.23(0.001)	-0.03(0.716)	0.18(0.014)
GD_AC	0.11(0.116)	0.19(0.007)	-0.03(0.633)	1(NA)	-0.05(0.453)	0(0.953)	0.1(0.17)	0.12(0.094)	-0.01(0.88)	-0.04(0.585)
MEET_AC	0.04(0.621)	-0.03(0.688)	-0.19(0.007)	-0.05(0.453)	1(NA)	-0.15(0.039)	0.24(0.001)	-0.35(<0.001)	0.16(0.026)	-0.04(0.585)
EXP_AC	0(0.947)	0.07(0.295)	-0.07(0.313)	0(0.953)	-0.15(0.039)	1(NA)	-0.11(0.121)	0.17(0.017)	-0.15(0.031)	-0.22(0.002)
SIZ_AC	0.14(0.047)	0.06(0.433)	-0.05(0.472)	0.1(0.17)	0.24(0.001)	-0.11(0.121)	1(NA)	-0.18(0.013)	-0.02(0.771)	-0.07(0.316)
FI_SIZE	-0.02(0.816)	0.05(0.456)	0.23(0.001)	0.12(0.094)	-0.35(<0.001)	0.17(0.017)	-0.18(0.013)	1(NA)	0.03(0.698)	0.27(<0.001)
CFO	-0.04(0.616)	0.12(0.093)	-0.03(0.716)	-0.01(0.88)	0.16(0.026)	-0.15(0.031)	-0.02(0.771)	0.03(0.698)	1(NA)	-0.06(0.406)
FLEV	0.17(0.017)	0.13(0.06)	0.18(0.014)	-0.04(0.585)	-0.04(0.585)	-0.22(0.002)	-0.07(0.316)	0.27(<0.001)	-0.06(0.406)	1(NA)

Correlation matrix for country = QSE

	Year	DAC	IND_AC	GD_AC	MEET_AC	EXP_AC	SIZ_AC	FI_SIZE	CFO	FLEV
Year	1(NA)	-0.09(0.499)	0.01(0.957)	0.21(0.115)	0.01(0.914)	-0.01(0.938)	-0.05(0.68)	-0.08(0.562)	-0.15(0.256)	-0.14(0.288)
DAC	-0.09(0.499)	1(NA)	0.26(0.042)	-0.54(<0.001)	-0.35(0.006)	-0.05(0.683)	-0.31(0.017)	-0.08(0.539)	0.03(0.838)	-0.01(0.921)
IND_AC	0.01(0.957)	0.26(0.042)	1(NA)	-0.45(<0.001)	-0.25(0.057)	0.33(0.01)	-0.23(0.072)	-0.17(0.195)	0.16(0.227)	-0.11(0.385)
GD_AC	0.21(0.115)	-0.54(<0.001)	-0.45(<0.001)	1(NA)	0.25(0.055)	-0.12(0.366)	0.11(0.395)	0.18(0.171)	-0.15(0.251)	-0.07(0.569)
MEET_AC	0.01(0.914)	-0.35(0.006)	-0.25(0.057)	0.25(0.055)	1(NA)	0.07(0.584)	0.43(0.001)	-0.11(0.411)	-0.2(0.123)	0.07(0.621)
EXP_AC	-0.01(0.938)	-0.05(0.683)	0.33(0.01)	-0.12(0.366)	0.07(0.584)	1(NA)	-0.1(0.458)	-0.24(0.069)	-0.03(0.849)	-0.37(0.004)
SIZ_AC	-0.05(0.68)	-0.31(0.017)	-0.23(0.072)	0.11(0.395)	0.43(0.001)	-0.1(0.458)	1(NA)	-0.09(0.499)	-0.07(0.574)	0.17(0.201)
FI_SIZE	-0.08(0.562)	-0.08(0.539)	-0.17(0.195)	0.18(0.171)	-0.11(0.411)	-0.24(0.069)	-0.09(0.499)	1(NA)	-0.34(0.008)	-0.33(0.011)
CFO	-0.15(0.256)	0.03(0.838)	0.16(0.227)	-0.15(0.251)	-0.2(0.123)	-0.03(0.849)	-0.07(0.574)	-0.34(0.008)	1(NA)	0.45(<0.001)
FLEV	-0.14(0.288)	-0.01(0.921)	-0.11(0.385)	-0.07(0.569)	0.07(0.621)	-0.37(0.004)	0.17(0.201)	-0.33(0.011)	0.45(<0.001)	1(NA)

Correlation matrix for country = KSE

	Year	DAC	IND_AC	GD_AC	MEET_AC	EXP_AC	SIZ_AC	FI_SIZE	CFO	FLEV
Year	1(NA)	-0.09(0.297)	0(0.989)	0.15(0.081)	0.04(0.634)	0.17(0.055)	-0.05(0.584)	0.03(0.693)	0.05(0.573)	0.07(0.427)
DAC	-0.09(0.297)	1(NA)	0.06(0.498)	-0.04(0.615)	-0.04(0.665)	-0.03(0.693)	0.14(0.109)	0.23(0.008)	-0.06(0.488)	0.06(0.513)
IND_AC	0(0.989)	0.06(0.498)	1(NA)	0.17(0.053)	-0.2(0.024)	-0.01(0.916)	-0.1(0.239)	-0.24(0.005)	-0.06(0.473)	0.03(0.695)
GD_AC	0.15(0.081)	-0.04(0.615)	0.17(0.053)	1(NA)	0.04(0.675)	0.03(0.694)	-0.05(0.571)	-0.14(0.116)	-0.17(0.053)	0.19(0.026)
MEET_AC	0.04(0.634)	-0.04(0.665)	-0.2(0.024)	0.04(0.675)	1(NA)	0.04(0.628)	0.4(<0.001)	0.14(0.101)	0.35(<0.001)	0.25(0.003)
EXP_AC	0.17(0.055)	-0.03(0.693)	-0.01(0.916)	0.03(0.694)	0.04(0.628)	1(NA)	-0.03(0.714)	0.18(0.037)	0.02(0.785)	0.12(0.168)
SIZ_AC	-0.05(0.584)	0.14(0.109)	-0.1(0.239)	-0.05(0.571)	0.4(<0.001)	-0.03(0.714)	1(NA)	0.09(0.286)	0.05(0.566)	0.19(0.026)
FI_SIZE	0.03(0.693)	0.23(0.008)	-0.24(0.005)	-0.14(0.116)	0.14(0.101)	0.18(0.037)	0.09(0.286)	1(NA)	0.05(0.602)	0.39(<0.001)
CFO	0.05(0.573)	-0.06(0.488)	-0.06(0.473)	-0.17(0.053)	0.35(<0.001)	0.02(0.785)	0.05(0.566)	0.05(0.602)	1(NA)	0.04(0.621)
FLEV	0.07(0.427)	0.06(0.513)	0.03(0.695)	0.19(0.026)	0.25(0.003)	0.12(0.168)	0.19(0.026)	0.39(<0.001)	0.04(0.621)	1(NA)

Correlation matrix for country = PEX-correlation matrix for country = ASE-correlation matrix for country = QSE-correlating matrix for country = KSE

	Year	**DAC**	**IND_AC**	**GD_AC**	**MEET_AC**	**EXP_AC**	**SIZ_AC**	**FI_SIZE**	**CFO**	**FLEV**
Year	1(NA)	0.02(0.677)	0(0.943)	0.14(0.003)	0.04(0.381)	0.02(0.622)	0.05(0.271)	0.01(0.882)	-0.01(0.822)	0.11(0.018)
DAC	0.02(0.677)	1(NA)	0.1(0.026)	-0.08(0.071)	-0.1(0.03)	-0.02(0.736)	0.03(0.489)	0.05(0.252)	0.05(0.327)	0.07(0.162)
IND_AC	0(0.943)	0.1(0.026)	1(NA)	-0.03(0.538)	-0.2(<0.001)	-0.01(0.752)	-0.08(0.088)	0.01(0.863)	0(0.955)	0.03(0.458)
GD_AC	0.14(0.003)	-0.08(0.071)	-0.03(0.538)	1(NA)	0.03(0.555)	0(0.967)	0.03(0.555)	0.18(<0.001)	-0.07(0.125)	0.02(0.614)
MEET_AC	0.04(0.381)	-0.1(0.03)	-0.2(<0.001)	0.03(0.555)	1(NA)	-0.06(0.229)	0.3(<0.001)	-0.09(0.068)	0.18(<0.001)	0.11(0.023)
EXP_AC	0.02(0.622)	-0.02(0.736)	-0.01(0.752)	0(0.967)	-0.06(0.229)	1(NA)	-0.12(0.008)	0.28(<0.001)	-0.07(0.112)	-0.05(0.311)
SIZ_AC	0.05(0.271)	0.03(0.489)	-0.08(0.088)	0.03(0.555)	0.3(<0.001)	-0.12(0.008)	1(NA)	-0.14(0.003)	0(0.943)	0.03(0.572)
FI_SIZE	0.01(0.882)	0.05(0.252)	0.01(0.863)	0.18(<0.001)	-0.09(0.068)	0.28(<0.001)	-0.14(0.003)	1(NA)	0.01(0.906)	0.17(<0.001)
CFO	-0.01(0.822)	0.05(0.327)	0(0.955)	-0.07(0.125)	0.18(<0.001)	-0.07(0.112)	0(0.943)	0.01(0.906)	1(NA)	0(0.977)
FLEV	0.11(0.018)	0.07(0.162)	0.03(0.458)	0.02(0.614)	0.11(0.023)	-0.05(0.311)	0.03(0.572)	0.17(<0.001)	0(0.977)	1(NA)

Appendix (C)

LR analysis for each separately

Sample size is: 66

Variable	Beta	SD	P	R2/AR2	Beta	SD	P	R2/AR2	phtest	VIF
IND_AC	-0.328	0.184	0.081	0.616/0.52	-0.325	0.182	0.074	0.616/0.52	0.885	1.95
GD_AC	0.134	1.439	0.926		1.074	1.303	0.41		0.885	1.08
MEET_AC	-0.092	0.066	0.168		-0.091	0.064	0.156		0.885	1.25
EXP_AC	-2.007	0.62	0.002		-1.968	0.611	0.001		0.885	1.73
SIZ_AC	0.64	0.169	<0.001		0.587	0.164	<0.001		0.885	1.13
FI_SIZE	-0.467	0.118	<0.001		-0.429	0.113	<0.001		0.885	1.27
CFO	0.019	0.009	0.031		0.02	0.009	0.019		0.885	1.1
FLEV	-0.15	0.2	0.457		-0.016	0.178	0.93		0.885	1.22

For Country: PEX

Sample size is: 198

Variable	Beta	SD	P	R2/AR2	Beta	SD	P	R2/AR2	phtest	VIF
IND_AC	0.105	0.113	0.354	0.096/0.029	0.101	0.113	0.37	0.096/0.029	0.816	1.18
GD_AC	2.59	0.991	0.01		2.558	0.983	0.009			1.09
MEET_AC	-0.028	0.047	0.55		-0.028	0.047	0.545			1.25
EXP_AC	0.314	0.219	0.154		0.306	0.218	0.161			1.24
SIZ_AC	0.012	0.073	0.868		0.024	0.072	0.739			1.13
FI_SIZE	-0.241	0.112	0.032		-0.237	0.111	0.033			1.39
CFO	0.014	0.005	0.003		0.013	0.005	0.004			1.09
FLEV	0.094	0.043	0.031		0.097	0.042	0.022			1.19

For Country: ASE

Sample size is: 60

Variable	Beta	SD	P	R2/AR2	Beta	SD	P	R2/AR2	phtest	VIF
IND_AC	-0.336	0.345	0.336	0.421/0.245	-0.288	0.337	0.393	0.421/0.245	0.977	1.28
GD_AC	-3.675	0.788	<0.001		-3.515	0.756	<0.001		0.977	1.18
MEET_AC	-0.267	0.163	0.108		-0.237	0.155	0.126		0.977	1.34
EXP_AC	-0.835	0.953	0.386		-0.935	0.932	0.316		0.977	1.5
SIZ_AC	-0.156	0.4	0.698		-0.224	0.382	0.557		0.977	1.18
FI_SIZE	0.034	0.158	0.831		0.02	0.15	0.895		0.977	1.47
CFO	-0.026	0.041	0.536		-0.019	0.039	0.631		0.977	1.49
FLEV	0.073	0.314	0.817		0.031	0.305	0.918		0.977	1.89

For Country: QSE

Sample size is: 132

Variable	Beta	SD	P	R2/AR2	Beta	SD	P	R2/AR2	phtest	VIF
IND_AC	0.521	0.207	0.013	0.192/0.095	0.52	0.207	0.012	0.192/0.095	0.83	1.15
GD_AC	0.23	0.874	0.793	0.192/0.095	-0.028	0.86	0.974	0.192/0.095	0.83	1.25
MEET_AC	-0.123	0.091	0.179	0.192/0.095	-0.096	0.09	0.285	0.192/0.095	0.83	1.67
EXP_AC	-1.184	0.807	0.145	0.192/0.095	-1.286	0.799	0.107	0.192/0.095	0.83	1.06
SIZ_AC	0.432	0.197	0.031	0.192/0.095	0.417	0.197	0.034	0.192/0.095	0.83	1.26
FI_SIZE	0.643	0.169	<0.001	0.192/0.095	0.63	0.168	<0.001	0.192/0.095	0.83	1.3
CFO	0.005	0.012	0.673	0.192/0.095	0.003	0.012	0.792	0.192/0.095	0.83	1.39
FLEV	-0.065	0.08	0.424	0.192/0.095	-0.064	0.08	0.419	0.192/0.095	0.83	1.38

For Country: KSE

Sample size is: 456

Variable	Beta	SD	P	R2/AR2	Beta	SD	P	R2/AR2	phtest	VIF
IND_AC	0.003	0.086	0.97	0.072/0.043	0.006	0.086	0.946	0.072/0.043	0.92	1.06
GD_AC	-1.354	0.417	0.001		-1.326	0.414	0.001			1.04
MEET_AC	-0.111	0.037	0.003		-0.106	0.037	0.005			1.22
EXP_AC	-0.393	0.196	0.046		-0.39	0.196	0.047			1.13
SIZ_AC	0.164	0.072	0.024		0.168	0.072	0.02			1.14
FI_SIZE	0.035	0.051	0.489		0.037	0.051	0.469			1.2
CFO	0.01	0.005	0.023		0.01	0.004	0.028			1.07
FLEV	0.046	0.037	0.213		0.046	0.037	0.208			1.06

For Country: PEX_ASE_QSE_KSE

جامعة النجاح الوطنية
كلية الدراسات العليا

تأثير خصائص لجنة التدقيق على ممارسات إدارة الأرباح: دراسة تطبيقية على الشركات الصناعية ادلة من الدول العربية

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إشراف
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قدمت هذه الرسالة إستكمالاً لمتطلبات الحصول على درجه الماجستير في المحاسبة، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس– فلسطين.

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الملخص

الغرض من هذه الدراسة هو استكشاف تأثير خصائص لجنة التدقيق على ممارسات إدارة الأرباح. لذا فإن المتغيرات المستقلة للدراسة هي خصائص لجنة التدقيق وتشمل الاستقلالية، والتنوع بين الجنسين، وتكرار الاجتماعات، والخبرة، والحجم. تعتبر الدراسة كمية تستخدم المنهج الوصفي التحليلي لفحص فرضياتها اعتماداً على البيانات التي تعود لعينة تتكون من الشركات الصناعية المدرجة في بورصات فلسطين والأردن وقطر والكويت، بشرط توافر البيانات خلال فترة الدراسة من 2016 إلى 2021. ونتيجة لذلك، تم أخذ بيانات76 شركة لمدة ست سنوات بإجمالي 456 ملاحظة في تحليلات الدراسة. وتم الحصول على هذه البيانات من التقارير السنوية لهذه الشركات المتوفرة على المواقع الرسمية للبورصات والشركات.

تم استخدام التأثيرات الثابتة والتأثيرات العشوائية للانحدار الخطي لفحص تأثير خصائص لجنة التدقيق على إدارة الأرباح. كشفت أهم النتائج أن التنوع بين الجنسين، وتكرار اجتماعات لجنة التدقيق، وخبرة أعضاء لجنة التدقيق لها تأثير عكسي ذو دلالة إحصائية على سلوك إدارة الأرباح. مما يعني أن سلوك إدارة الأرباح من قبل الشركات المشمولة في عينة الدراسة يتناقص مع زيادة التنوع بين الجنسين، وتكرار الاجتماعات، وخبرة أعضاء لجنة التدقيق. علاوة على ذلك، أظهرت النتائج وجود تأثيرات طردية هامة لحجم عضو لجنة التدقيق والتدفقات النقدية التشغيلية على سلوك إدارة الأرباح. ويشير ذلك إلى أن إدارة الأرباح تزداد عندما يزيد حجم أعضاء لجنة التدقيق والتدفقات النقدية من الأنشطة التشغيلية.

وتوصلت الدراسة إلى وجود قصور في لجان التدقيق قد لا تؤدي دورها بكفاءة، خاصة في تثبيط إدارة الأرباح. وقد يكون ذلك بسبب عدم الالتزام بقواعد حوكمة الشركات وقوانين الشركات. وبالتالي، يجب على شركات العينة الالتزام بتطبيق مدونة حوكمة الشركات وقوانين الشركات، خاصة فيما يتعلق باستقلالية لجنة التدقيق وحجم لجنة التدقيق. أحد القيود الرئيسية للدراسة هو عدم توفر البيانات حول خصائص معينة للجان التدقيق. وبالتالي، تم تجاهل عوامل مهمة مثل المؤهلات القانونية لأعضاء لجنة التدقيق. يمكن للدراسات المستقبلية توسيع نطاق البحث من خلال تضمين خصائص إضافية مثل عمر أعضاء اللجنة وأجورهم.

الكلمات المفتاحية: حوكمة الشركات، خصائص لجنة التدقيق، نموذج جونز المعدل، الشركات الصناعية المساهمة العامة، الدول العربية.