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The Impact of Changing External Auditors, Auditor Tenure, and Audit Firm Type on the Quality of Financial Reports on the Saudi Stock Exchange

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Abstract: The purpose of this study is to examine the influences of external auditor firm type, auditor tenure, and external auditor changes on the quality of Saudi Arabian financial reports. In particular, this study examines the quality of financial reports of companies listed on the Saudi Stock Exchange using a widely accepted evaluation model modified by JonesThis study aims to determine whether Big Four and non-Big Four audit firms, auditor tenures of three or more years, and external auditor changes have any impact on the quality of financial reports of Saudi-listed companies. This study uses 175 firm-year observations of 35 companies listed on the Tadawul Saudi Stock Exchange between 2017 and 2021. Using discretionary accruals (DACC) as modified by Jones to measure the quality of financial reports, the findings illustrate that there is a significant negative relationship between Big Four audit firms and DACC. However, the study also shows a significant positive correlation between auditor tenure and DACC. The research revealed that there is no significant relationship between auditor change and DACC. These results have practical implications for policy development. According to the outcomes of this research, there are numerous ramifications for both companies and the government in Saudi Arabia in terms of enhancing the relationship between companies and audit firms and determining the most suitable auditor tenure to improve the quality of financial reports.

Keywords: Big Four and non-Big Four; auditor tenure; external auditor change; discretionary accruals; quality of financial reports in Saudi Arabia

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1. Introduction

This study examines the impact of external auditors on the quality of financial reports in Saudi Arabia by examining audit firm type, auditor tenure, and auditor changes to determine whether these factors affect the quality of financial reports. The changing of external auditors and auditor tenure have been reviewed as a method for assessing the impact of external auditor changes on financial reporting quality. This topic has led to a debate in the auditing field, with some studies contending that companies should have long contracts with external auditors due to their specialisation in a specific auditing focus. However, recent research findings have suggested that companies should regularly change their external auditors to enable a fresh perspective, which increases transparency and enables the detection of fraud. During company audits, management prepares financial statements with the goal of evaluating whether they comply with the relevant financial reporting requirements. The main objective of financial reporting audits is to increase market trust in financial reports (IAASB 2009). In addition, auditors conduct audits in order to determine whether financial statements are free of material errors—regardless of whether they are the result of theft, corruption, or error—and to gather reliable evidence about whether the financial statements present a true and accurate view of the facts (IAASB 2009).

This research also examines whether the quality of financial reports is impacted by the type of audit consultancy engaged in by companies, specifically whether they are one of the Big Four (and the same with respect to audit rotations). Consequently, the impacts of Big Four and non-Big Four audit firms are determined in order to improve the quality of company financial reports. In Saudi Arabia, four auditing firms have acquired the largest share of the market: PwC, KPMG, Ernst & Young, and Deloitte Touche Tohmatsu (Yean-Allah 2019). These are international corporations. The significance of this research can be attributed to its focus on the Big Four audit firms, as larger audit firms may disclose more details, but some of the information may not be of adequate quality or help the reader make sense of the material (Wallace et al. 1994). This research focuses on understanding the appropriate practices for assigning an external auditor, as well as the optimal auditor tenure to increase the quality of financial reports. Therefore, this study evaluates the impact of audit firm type, auditor tenure, and changes in auditors to understand how these factors affect audit and financial reporting quality.

Audit quality has no fundamental or single definition (FRC 2007). However, a frequently used definition was presented by DeAngelo (1981a), where audit quality is divided into two components. From this definition, one can conclude that an auditor's ability to discover a breach depends on several factors. For instance, differences in knowledge, skills, expertise, and experience affect the performance of an auditor or audit team and the corresponding quality of the audit (Sihombing and Sondakh 2023). In addition, different audit procedures, as well as the time and effort invested, affect the discovery of breaches (Hermawan et al. 2021). The level of pressure that an auditor withstands demonstrates their willingness to report a breach, which is influenced by independence, objectivity, and scepticism. If auditors lack independence, they are less likely to report errors and irregularities, thereby adversely impacting audit quality. An intended goal of this research is to reduce these practices by changing the external auditor in each period. In this study, the appropriate tenure is determined by examining an audit tenure of three years or more. Consequently, firm audits are more likely to be conducted with integrity, which should improve the quality of future financial reports.

Research into the many elements that impact the quality of audits is ongoing. A study conducted by Valentina and Abbas (2024) investigated the influence of audit tenure, audit quality, and financial ratios on the delay in issuing audit reports in mining industry firms that are publicly traded on the Indonesia Stock Exchange. Their findings indicate that while the quality of audits has a beneficial influence on the promptness of financial reporting, the time within which audits are conducted does not delay issuing audit reports. This underscores the challenge of sustaining audit quality over time. Furthermore, Apriani et al. (2024) investigated the impact of audit fees, audit tenure, firm size, and management ownership on the quality of audits in transportation and logistics firms. Their results suggest that while audit fees and firm size enhance audit quality, audit tenure does not have a substantial impact, emphasising the need to take into account many aspects when assessing audit quality. These studies highlight that extending the duration of audit periods may not improve the quality of audits. They propose that prioritising audit independence, audit fees, and firm characteristics may be crucial for guaranteeing high-quality financial reporting.

Unlike earlier studies emphasising stable regulatory environments like Jordan (Alzoubi 2016), Iran (Gerayli et al. 2011), and Indonesia (Challen and Siregar 2012), our research specifically targets Saudi Arabia, a nation undergoing notable legislative and corporate governance changes under Vision 2030. With a particular focus on how audit firm type, auditor tenure, and changes in external auditors affect the quality of financial reports for listed firms, this paper examines the effect of these dynamic alterations on audit processes between 2017 and 2021. We investigate whether businesses audited by Big Four corporations show better financial report quality than those audited by non-Big Four organisations and whether the term of an external auditor of three years or more improves the quality of financial statements. We also evaluate how shifting external auditors affects the quality of financial reports, therefore comparing our results with those from Indonesia (Zaafaranie et al. 2024). Building on fundamental research like Abbott et al. (2016) and Becker et al. (1998), this analysis extends the knowledge of how regulatory changes influence the tenure and independence of external auditors, hence influencing financial reporting quality. Although comparable dynamics have been investigated in other areas (Alzoubi 2016; Chen et al. 2011), our study provides new perspectives on these problems within the unique and changing regulatory framework of Saudi Arabia. By analysing the link between Big Four auditors, auditor tenure, and financial reporting quality, our research offers a complete picture of audit quality in a market experiencing significant change, finally using a modified Jones (1991) model.

1.1. Significance and Contribution to Knowledge

This research is essential for determining what affects the quality of financial reports in Saudi-listed companies. There is a focus on the effects of changing external auditors, the duration of relationships with audit companies, and external auditor firm types. The results of this research may identify and confirm the best practices for changing external auditors. Furthermore, the findings might indicate which type of external auditor firm is more likely to positively impact the quality of financial reporting for Saudi-listed companies. Moreover, the research outcomes might reveal the optimal auditor tenure for listed companies, which could inform decision-making regarding changes in external auditors. Understanding what influences the quality of reports is of significance, as they are relied upon by investors, creditors, the stock market, government agencies such as taxation departments, and the Central Bank. Therefore, identifying the best practices to support changing external auditors may increase the quality of financial reports, consequently encouraging stakeholders to rely on them.

External auditors play a significant role in terms of ensuring the credibility of financial reports (Artana et al. 2023). As part of auditing, financial statements are scrutinised to determine the true financial situation of the company, as presented by its management. The independent review of financial statements issued by directors either enhances or diminishes a firm's credibility, depending on the quality of the information (Hubais et al. 2023). Further to this, the quality of their content increases or reduces exposure to investor risk (Mansi et al. 2004; Watts and Zimmerman 1983). An external auditor's report is the last step in an audit, which the companies' owners rely on to confirm their financial position. These reports result from an audit process that expresses a judgement regarding financial statements, known as a correct and reasonable interpretation (García Blandón and Bosch 2015; Otuya et al. 2017). However, stakeholders may fail to identify the best practices when reviewing their companies' financial reports following an audit by an external auditor, which could affect their decision as to which external auditor would be the most appropriate. Furthermore, they may be uncertain as to whether to change audit firms and, if so, whether it should be to one of the Big Four or a non-Big Four firm. This research could, therefore, significantly contribute to resolving these issues.

This study enables future research to be more comprehensive about the actual problems associated with external auditor selection and auditor tenure, with a view to enhancing the quality of financial reporting. This research is conducted to determine the most effective strategy for selecting external auditors and auditor tenure to prevent future financial reports from being of low quality. According to the Saudi Vision 2030, many government sectors will become private sectors in the coming years. This will create a high demand for the auditing profession. Thus, this research may contribute significantly to the development of best practices in the auditing profession.

This study builds on the seminal work undertaken by Nagy (2005), who utilised discretionary accruals, which was subsequently modified by Jones (1991), to investigate the impact of mandatory auditor changes on the quality of audits. Following the bankruptcy of Arthur Andersen (AA), Kim and Cheong (2009) also used discretionary accruals to support mandatory audit firm rotation (MAFR) and deliver financial reporting of higher quality. However, Kwon et al. (2014), who employed discretionary accruals in their research, reported no significant correlation between MAFR and financial reporting quality. In the vast body of research investigating the correlation between audit tenure, auditor change, and audit firm type, there is still significant controversy and a lack of agreement regarding the specific ways in which these factors affect the quality of financial reports. In addition, there is a lack of comprehensive research on the application of agency theory in this particular scenario—in particular, concerning the principal–agent dilemma and its implications for the quality of financial reporting, as well as the impact of auditor independence, which is influenced by the length of service and changes. Significantly, previous studies have mostly neglected the particular circumstances of Saudi Arabia, resulting in a lack of appreciation for how these elements, when examined from the perspective of agency theory, interact within the distinct regulatory and cultural setting of the Saudi Stock Exchange. This study fills the existing research gap by being the first to investigate the impact of audit tenure, auditor change, and audit firm type on the quality of financial reports in Saudi Arabia. Additionally, it incorporates agency theory to enhance comprehension of the interactions between auditors and executive management. The results will provide significant insights for Saudi companies and will also have wider ramifications for other Gulf Cooperation Council (GCC) nations with comparable economic and regulatory structures.

1.2. Statement of the Problem

The work of external auditors has experienced greater scrutiny due to recent financial reporting errors. To improve financial reporting quality, professional auditing organisations should develop appropriate strategies for assigning or changing external auditors and determine the ideal duration for which an external auditor should remain with a firm. There have been a number of supporters of compulsory audit firm rotation (Clapman 2003; Commission on Public Trust and Private Enterprise 2003; Imhoff 2003; Silvers 2003). Those who support mandatory audit firm rotation cite the possibility that a different auditor may offer greater scepticism than those who are in long-term relationships with clients and, thereby, deliver distinct perspectives. In addition, companies that have served audit firms for many years may be considered perpetual annuities, which may also compromise the impartiality of the auditor. On the other hand, opponents of compulsory firm rotation claim that audit quality would be adversely affected as auditors would not be as familiar with the customers and business sectors (AICPA 1992; BDO Seidman LLP 2003; Hills 2002). In contrast, advocates of compulsory rotation highlight that problem audits occur more frequently during the early stages of a customer–auditor contract than after a longer duration (O'Malley 2002; St. Pierre and Anderson 1984). The auditor's competence is an essential aspect of auditing, defined as the auditor's understanding, abilities, principles, and behaviours when undertaking audit work (IFAC 2005). The IFAC also added that auditor ethics and professional judgement should be governed by a framework that ensures auditors are acting ethically and exercising professional integrity in the best interests of the public and auditing industry. As part of their audit competence, auditors should also have comprehensive knowledge of the company they are assessing. The auditor becomes more confident in evaluating the truthfulness of claims due to the long-term partnership, as they are able to observe behavioural changes or psychological adjustments (IFAC 2015). However, taking this research back to its main thesis, external auditors may gain more experience by working with many different clients and a wider range of industries. Therefore, the exposure gained through rotations and having different clients greatly enhances the knowledge of auditors. For example, if an external auditor has audited only financial firms for their entire career and then transitions to audit medical firms, they can then learn about various relevant products and the financial statement structures of medical firms.

Therefore, the debate regarding whether to change external auditors or remain with them for an extended period of time is ongoing.

It is important to note that even though the recently legalised Sarbanes-Oxley Act (2002) does not mandate audit firm rotation, it does call for the U.S. Comptroller General to evaluate the possible consequences of mandating rotation. The General Accounting Office (GAO) has published its findings on compulsory audit firm rotation, determining that it may not strengthen the quality of an independent auditor (GAO 2003). If the other requirements of the Sarbanes–Oxley Act fail to improve audit quality, the GAO might revisit the mandatory audit firm rotation requirement (GAO 2003). Numerous groups, such as the GAO (2003), New York Stock Exchange (2003), Commission on Public Trust and Private Enterprise (2003), and TIAA-CREF (2004), have also recommended frequently changing audit firms to improve audit quality. As a result, regulatory authorities, decision-makers, and corporate stockholders remain interested in this topic, even though rotation is not mandated at this time. It is necessary to conduct further studies to assess whether forcing auditor changes would significantly enhance audit quality for large companies under a true mandatory auditor rotation regime, where companies would seem to have less control over the audit process (Nagy 2005).

1.3. Research Questions

We aim to assess the impact of audit firm type and changing external auditors on the quality of the financial reports of listed companies in Saudi Arabia. This includes determining whether companies audited by Big Four or non-Big Four firms exhibit different financial reporting qualities. Furthermore, this research aims to examine the tenure of external auditors, with an appropriate length being deemed essential for strengthening the quality of financial reports and meeting the high standards of the audit profession. This includes examining whether an external auditor's tenure of three or more years with a particular company impacts the quality of financial statements. Understanding what contributes to the quality of financial reports supports firm sustainability which, in turn, motivates business growth and creates a strong economy in Saudi Arabia. This study has three main research questions, listed below. They are designed to test the correlation between independent and dependent variables to ascertain whether a positive or negative relationship exists.

1. Do the Big Four audit firms have a positive correlation with the quality of listed companies' financial reports in Saudi Arabia?
2. Are external auditor firm tenures of three or more years for a given listed company positively associated with the quality of the company's financial reports in Saudi Arabia?
3. Do changing external auditor firms positively impact the quality of listed companies' financial reports in Saudi Arabia?

1.4. Agency Theory

Several accounting academics have utilised agency theory in their scholarly research (Leung and Ilsever 2013). A fundamental concept of agency theory is that it describes the dynamics that exist between company owners and their representatives. In this relationship, owners empower representatives to take care of their interests through the delegation of responsibility. Representatives are, however, sometimes reluctant to share any decrease in earnings (Palliam and Shalhoub 2003). When this lack of disclosure occurs, an owner's interests and those of representatives are at odds. According to Leung and Ilsever (2013), agency theory is a product of agency problems, which involves a representative acting for an owner where interests differ (Shapiro 2005). Those who are primarily concerned with their own interests will likely act in ways that serve to benefit themselves while endangering the owners (Palliam and Shalhoub 2003).

Agency theory underpins the existing literature regarding changing external auditors since it explains the complexities found within the field. Jensen and Meckling (1976) contend that agency theory can be defined as a relationship in which a primary relies on another person, called an agent, to carry out services on their behalf. This includes delegating some responsibilities to the agent. The relationship between agency theory and audit function can be illustrated by the following explanation. According to Colbert and Jahera (1988), agency theory holds that the role of audits is to monitor management's operations to ensure that they are acting in accordance with owners' interests. Problems arise when the owner and agent have contradictory objectives, and the principal must spend significant time and money to understand what the agent is doing. Further, due to the segregation of ownership and management, managers control the company's operations and activities. They have the authority to make company decisions. Therefore, they tend to focus on self-interest rather than on the benefit to owners. Such behaviours result in negative consequences for company earnings. Therefore, a problem with the quality of financial reports can be indicative of an agency problem. Company management is responsible for ensuring the integrity and reliability of financial statements when presenting them to company owners, while external auditors are assigned by owners to audit the company's financial statements to ensure the integrity of the company's financial reports.

According to this research idea, if firms stay with an external auditor for a long time, their managers and external auditors might have a relationship that entails partiality, and so the principals and agents might experience a conflict of interest if they remain with the auditor for too long. Therefore, it might be possible to obtain high-quality financial reports by changing external auditors, which also ensures the integrity of the information.

In order to enhance the use of agency theory in this research, it is essential to clarify the theoretical relationship between the notions of auditor independence, tenure, and changes and their impact on the quality of financial reporting. According to agency theory, a significant conflict of interest often emerges between principals (owners) and agents (managers), particularly when the agents prioritise their own interests over those of the proprietors. Mitigation of this conflict may be achieved through auditor independence. For example, researchers such as Abbott et al. (2016) have highlighted the need for both independence and competence in internal audits to guarantee the quality of financial reporting. These principles assist in aligning the interests of managers with those of shareholders by minimising earnings manipulation and restatements. Moreover, Alzoubi (2016) provided evidence that superior audit quality, often linked to the Big Four auditors, diminishes earnings manipulation, hence strengthening the significance of independent audits for protecting financial integrity. Furthermore, the studies conducted by Becker et al. (1998) and Chen et al. (2011) demonstrated that audits that are both independent and of high quality have the effect of decreasing the likelihood of earnings manipulation, thereby improving the trustworthiness of financial statements. Prolonged auditor employment, as emphasised by agency theory, may undermine this independence by fostering strong connections between auditors and management, perhaps resulting in biassed reports. This possibility of bias highlights the need for auditor modifications to maintain impartiality and synchronise the interests of agents with those of principals, thereby ensuring that financial statements continue to be a dependable representation of the company's performance. Prolonged auditor service may jeopardise audit quality by diminishing independence. Occasionally, replacing auditors may alleviate these concerns, thereby enhancing the quality of financial reporting.

2. Literature Review and Hypothesis Development

Integrating various studies into our research provides valuable insights into how audit quality is shaped by various factors across regions and industries. For example, Zaafaranie et al. (2024) and Fernandez et al. (2024) stress the importance of audit fees and company size in improving audit quality. Zaafaranie et al. (2024) found that in Indonesia's financial sector, audit fees play a more critical role than factors such as audit tenure or auditor switching. On the other hand, Fernandez et al. (2024) suggest that larger companies with higher audit fees tend to enjoy better audit quality. Interestingly, these findings also show that audit tenure and auditor reputation have a limited impact on audit quality. This might contrast with our findings in Saudi Arabia, where extended audit tenure and financial reporting quality may have a negative relationship.

Likewise, Morasa et al. (2024) and Hadji (2024) examined the effects of company size and the combined effects of audit tenure and rotation in Indonesian firms. They found that larger companies generally uphold higher audit standards, while audit tenure alone does not significantly affect audit quality. Hadji's research suggests that although tenure and rotation might not individually impact audit quality, their combined effect can be substantial, reflecting a complex interplay between these factors. By contrast, Salman and Setyaningrum (2023) find that larger audit firms and longer audit tenures can positively impact audit quality in specific industries, highlighting the role of firm size in addressing agency problems. However, Valentina and Abbas (2024) point out that audit tenure does not seem to affect audit report lag in the mining sector, suggesting that the impact of audit tenure can vary by industry.

2.1. External Auditor Firm Types and Financial Reporting Quality

This subsection focuses on studies that investigate whether the quality of financial reports is affected by the type of audit consultancy used by companies, specifically whether they are one of the Big Four, as well as the policy of audit rotations. The type of audit firm employed is crucial to the quality of financial reports, with larger firms typically following more stringent quality standards to satisfy their clients. A number of studies have been conducted to illustrate the effect of the size of the audit firm. Lawrence et al. (2011) suggested that Big Four firms have higher-quality standards for their audits, as their size can accommodate stronger professional development, standardised auditing procedures, and quality control mechanisms. In addition, Dopuch and Simunic (1980) noted that large audit companies are likely to offer more sophisticated audits as a means of maintaining their reputation and avoiding costly litigation.

A study conducted in Indonesia by Martani et al. (2021) examined the influence of auditors' tenure and their rotation on audit quality by comparing Big Four and non-Big Four audit firms. They found that auditors' tenure was not significantly correlated with audit quality. Furthermore, they found that auditor rotation has a positive influence on audit quality, while the strength of this influence is lower for Big Four firms. Regarding the non-Big Four firms, the findings suggest that changing auditors within a firm has no impact on quality, while changing auditing firms entirely may enhance the quality of audits. With respect to the Big Four firms, auditor rotation to enhance audit quality is both appropriate and possible because there are sufficient partners to implement quality control. From 2000 to 2009 in South Korea, Choi et al. (2017) investigated mandatory audit firm rotations of the Big Four and their effects on audit quality. They find that the transition from a non-Big Four firm to a Big Four firm is associated with a lower level of abnormal accruals, supporting the assertion that Big Four firms deliver higher-quality audits than non-Big Four firms. Longer auditor tenures and transitions to Big Four audit firms, in general, have a positive impact on audit quality.

Furthermore, several studies have shown that companies that have their audits performed by the world's top audit firms, such as the Big Four, obtain greater audit quality, leading to financial reports that are also of a higher standard. Based on the findings of DeFond and Subramanyam (1998), corporations that change from Big Six to non-Big Six audit firms experience a significant increase in abnormal accruals. As these audit firms are larger and have the ability to train and improve their auditors' ability to detect errors, they may be more inclined to maintain high standards throughout the auditing process than others. As a result, the financial reports of companies audited by them may be of higher quality. According to DeAngelo (1981a), several empirical research studies have supported the hypothesis that Big Four auditors produce higher-quality audit reports than non-Big Four auditors (Becker et al. 1998; Behn et al. 2008; Khurana and Raman 2004). In addition, company owners feel more comfortable having their companies audited by large firms since they believe they will be able to prevent any fraud concerns related to their companies. There is a lower risk of financial report fraud among companies audited by the top 10 audit firms in China (Lisic et al. 2015). In order to retain clients and avoid the possibility of litigation, external auditor firms recognise the importance of maintaining a positive public image. It is, therefore, unlikely that company owners would hire an external auditor with a lack of integrity to audit their financial reports. Moreover, several studies have shown that Big Four audit firms are more motivated to maintain their reputations and positive public perceptions to avoid being sued (Basu et al. 2001; DeAngelo 1981b). The key reasons companies appoint or change external auditors include a more sophisticated audit system and well-qualified auditors. As stated, Big Four auditors have a better audit system and a higher level of professionalism than smaller companies, as found by Choi et al. (2017).

H1. *Agency theory postulates that the Big Four audit firms are better placed in terms of resources, experience, and reputation than other firms to serve shareholders' interests by delivering quality audit work that minimises the information gap. Therefore, there is a positive correlation between the Big Four audit firms and the quality of listed companies' financial reports in Saudi Arabia.*

2.2. Audit Tenure and Financial Reporting Quality

Johnson et al. (2002) assessed whether the quality of financial reporting is related to the length of a corporation's relationship with a specific auditing firm (the tenure) using two measures: the quality of financial reporting and a sample of the Big Six audit companies. The study found no relationship between high-quality financial reporting and medium- or short-term audit tenure. In addition, audit firms operating with partners for nine or more years show no evidence of a reduction in financial reporting quality. If the researchers determined no link between auditing quality and rotation length, this is because the companies followed the auditing practices outlined by audit regulators. This research uses the aforementioned study because it has employed two similar proxies to measure the quality of financial reporting. The first proxy is the importance of unexpected accruals. The authors used this to determine whether management increases accruals in order to receive more incentives. The second proxy is the stability of the accrual with respect to the complexity of earnings, which the authors tested by assessing the correlation between present-time accruals and projected income. Chu et al. (2018) conducted a similar study on the same topic, examining how auditor tenure impacts financial reporting quality. This study showed a negative correlation between auditor tenure and downward bias in non-operating accruals. In addition, when it comes to litigation risks, auditor tenure was positively correlated with downward bias in non-operating accruals. This study is included as it captures a new aspect for investigation: which Big Four or non-Big Four auditing offices have high-quality standards for the purpose of avoiding litigation risks. A study by Litt et al. (2014) investigated the effects of auditor partner rotation on financial reporting quality in the USA. They found that the quality was lower during the first two years with a replacement audit partner, as compared with the final two years with an ex-partner. The clients of larger companies were found to have lower-quality financial reports. Another study discusses the impact of mandatory changes in external auditors on the quality of financial reports, and the findings of this study are related to auditing tenure. The study was conducted by Jackson et al. (2008) and investigated the possibility that a mandatory change of external auditors may impact audit quality in Australia by using discretionary accruals and audit quality levels. The study found that audit quality increases with the auditing firm's tenure. To determine how rotations impact audit quality, the authors used both going concern opinions (GCO) and discretionary accruals (DACC).

Furthermore, discretionary accruals are appropriate indicators for measuring the quality of financial reports. After the change in external auditors, Nagy (2005) examined Arthur Andersen clients' financial reports using discretionary accruals to assess the quality of their financial reports. It was found that small companies decreased their discretionary accruals after they complied with changing to another external audit firm. This resulted in the improved quality of their financial reports.

H2. *Based on agency theory, auditor tenure could either positively influence audit quality, given that the auditor has an extensive understanding of the firm's operations, or bring about negative effects, given that the auditor could form a close relationship with the management. Therefore, a tenure of an external auditor firm of three years or more is hypothesised to be positively associated with the quality of listed companies' financial reports in Saudi Arabia, as a longer tenure might improve the auditor's understanding of the firm, thus enhancing audit quality.*

2.3. External Auditor Change and Financial Reporting Quality

Harber and Maroun (2020) conducted research to examine compulsory audit firm rotation. Their study used mixed methods, namely semi-structured interviews and surveys, to determine the ability of compulsory audit firm turnover to improve audit quality due to various switching costs, including the loss of client-specific knowledge and expertise. This study suggests that companies and audit firms incur substantial expenses and interruptions due to compulsory audit firm changes. This may result in lower profitability in the audit industry and increased stress on partners; thus, this profession may become less attractive as a career option.

According to Arel et al. (2005), auditors can become fatigued if they serve a firm for a long time. They tend to perceive auditing as a repetitive task with set routines, which reduces impartiality. However, it has also been argued that effectiveness may be enhanced by having performed earlier audits for the client. It might be difficult for an auditor who does not fully grasp a company's industry to assess it adequately within a short timeframe. Furthermore, an auditor who knows the corporation is better able to predict its problems and changes. It has also been demonstrated that audit incompetence is more likely to occur in the first audit year when auditors lack appropriate perception and familiarity (Arel et al. 2005). Catanach and Walker (1999) discuss various international viewpoints on this topic. The authors point out that supporters of mandatory rotation believe that it provides protection against long-term audit–client partnerships that could reduce independence and quality and decrease audit errors, thereby improving the quality of financial reports and allowing auditors to withstand leadership pressure more effectively.

In contrast, some studies argue that mandatory rotation is more expensive than useful due to the start-up costs for auditors and the cost of recruiting and educating new auditors in the client's organisation. Gerakos and Syverson (2015) calculated that if U.S. listed companies changed their external auditors as part of a mandatory rotation every 10 years, this would cost $2.7 billion; if they changed every five years, the cost would be $4.7–5.0 billion. In addition, another study found that external auditors would lose insight into the fundamental activities of companies. Therefore, mandatory firm audit rotation might decrease auditors' knowledge of an industry, leading to lower-quality financial reports. Instead, a long-term partnership between external auditors and a business's clients might enhance auditors' knowledge of the industry, which could then lead to an increase in the quality of financial reports. Brazel et al. (2010) demonstrate that knowing a client's business, which is a proxy for auditors' expertise, significantly improves auditors' ability to identify suspicious activities.

From a government perspective, many countries have decided that mandatory rotation of partners is a suitable legislative measure to ensure the credibility of external auditors. This would prevent personal relationships from developing between management and external auditors, which could negatively impact the integrity of the audit. The fresh perspective brought to firms by new auditors has led several governments to mandate partner rotation. For instance, the Cadbury Committee in the United Kingdom states that partner rotation improves the strictness of an audit by stimulating a new perspective (Committee on the Financial Aspects of Corporate Governance 1992). In the United States, the AICPA requires that partners rotate every seven years in order to ensure that audits are regularly conducted by fresh eyes (AICPA 1992). As a result of the Sarbanes–Oxley Act of 2002, the mandatory rotation cycle was shortened to five years, allowing the AICPA to reframe partner rotations as a means of providing "a periodic fresh look at an issuer's financial statements" (AICPA 2003). Audit quality in the sample of firms with compulsory rotation was lower than that in the sample of firms with a voluntary rotation policy. Additionally, firms with compulsory rotation have lower audit quality than mandatory audit partner firms. Based on these results, long-term audit tenure is associated with improved audit quality, as accounting firms gain an understanding of their clients. Correspondingly, the study by Choi et al. (2017) indicated that Korea's compulsory audit firm rotation policy was ineffective.

Some researchers have studied periodic changes in external auditors. Manry et al. (2008) studied the effects of a cyclic change of external auditors on the auditing quality of listed companies in California, USA. They found a negative relationship between the cyclic change of external auditors and the quality of financial reports. The extensive experience acquired by an auditor from the examination of a client over an extended period of time suggests that the duration of the contract has a positive effect on the audit procedure. Due to the auditor's personal characteristics rather than the contract period, professional independence is low.

H3. *Agency theory also postulates that a switch in auditors may enhance audit quality by adding a new perspective and may eliminate the complacency that can result from long-term associations. Hence, external auditor change is hypothesised to be positively associated with the quality of listed companies' financial reports in Saudi Arabia.*

3. Methods

3.1. Research Design

A positivist philosophy guides this study, which employs a quantitative approach. Positivist research can be defined as scientific studies aimed at achieving clear outcomes (Creswell 2014). As stated by the same author, post-positivist studies need to recognise and evaluate the factors influencing results, for example, those found in experimental studies. Additionally, it is a reductionist approach that aims to narrow down concepts into a few specific variables for testing, such as hypotheses and study questions. Furthermore, from the perspective of a positivist approach, natural phenomena are regarded as existing essentially and independently of individuals' perceptions (Bougie and Sekaran 2016).

Moreover, a noteworthy feature of the positivist paradigm is that it depends on empirical evidence (Bougie and Sekaran 2016). By altering variables, post-positivist research examines how phenomena change in tandem with variables (Rehman and Alharthi 2016). Positivism also uses empirical data gathered by the researcher to determine how much change has occurred over time (Saunders et al. 2007). As a result, empirical research is best conducted according to a positivist paradigm.

3.2. The Quantitative Method

The purpose of this study is to investigate the impact of external auditor type, whether Big Four or non-Big Four, duration of auditor–client tenure, and rotation of auditors on the quality of listed companies' financial reports in Saudi Arabia. A quantitative strategy is used to collect secondary data from listed Saudi Arabian companies' annual firm reports. In terms of methodological advantages, secondary data are more economical, as they save time and money (Tabachnick et al. 2007). The researcher has evaluated the annual reports of companies to ensure that the secondary data are relevant to the study and meet the research criteria. As a result of evaluating secondary sources of data, it was noted that four essential characteristics of companies' annual reports were met: accessibility, relevance, accuracy, and information sufficiency (Bougie and Sekaran 2016). In accounting research, the quantitative method is used (Gruszczyński 2009). Many researchers have used this approach to investigate phenomena of this type (for instance, Chu et al. 2018; Johnson et al. 2002; Litt et al. 2014; Nagy 2005; and Martani et al. 2021).

Using accounting data that are observable and quantifiable is crucial for an analysis such as this one. The quantitative research design concentrates on quantifying outcomes, whereas qualitative research seeks to understand the phenomenon in depth (Abbott and McKinney 2013). As a result of the quantitative design used in this study, accurate statistical results can be obtained, which can be utilised to infer the impact of external auditor type, duration of auditor–client tenure, and rotation of auditors on the quality of listed companies' financial reports in Saudi Arabia.

Financial reports from the selected listed firms are available and contain the necessary data for research. In Saudi Arabia, all publicly traded firms must disclose quarterly and annual financial reports on the Tadawul stock market. Tadawul is a Saudi Arabian stock exchange that offers listing and trading services to local and international investors. Through the use of secondary data from listed companies on Tadawul, the researcher is able to examine the potential impacts of external auditors' firm type, audit tenure, and changes in external auditors on the quality of financial reports. This research considers several independent variables, including the type of external auditor (Big Four or non-Big Four), audit tenure between clients and external auditors, and the rotation of external auditors. The dependent variable in this study is the quality of financial reports, which is measured through accrual ratios, as modified by Jones (1991). Accrual ratios measure financial report quality by estimating earnings aggressiveness (Bhattacharya et al. 2003). In accordance with Tang et al. (2016), the magnitude of accruals can be used to determine an accounting policy's level of aggressiveness or stability. Accounting policies that are aggressive delay the recognition of losses and increase profit estimates, while traditional accounting policies do the opposite. To reduce the information asymmetry between managers and investors, Ball et al. (2000) argue that accounting conservatism requires accounting losses to be considered earlier in profit accounts than earnings.

In summary, this research relies on secondary data from Saudi-listed financial reports. This leads to dependence on the accruals ratio to examine the impact of firms' relationships, choice of external auditors, auditor tenure, and changes in external auditors. The impact of these factors on the quality of financial reports is crucial for our investigation.

3.3. Methods of Sampling

The sample for this research was manually collected from Tadawul (Tadawul.com.sa), the Saudi Stock Exchange that collects data from annual company reports. There are 220 companies listed on Tadawal's website under different industry groups characterised as follows: Energy, Materials, Capital Goods, Commercial and Professional Services, Transportation, Consumer Durables and Apparel, Consumer Services, Media and Entertainment, Retailing, Food and Beverages, Health Care Equipment and Servicing, Pharma, Biotech and Life Science, Banks, Diversified Financials, Insurance, Software and Services, Telecommunication Services, Utilities, REITs, and Real Estate Management and Development. We collected data from publicly traded companies' financial reports in the materials group using the purposive sampling strategy. Several other studies have followed this same strategy (e.g., Lambe et al. 2022). According to Etikan et al. (2016), the purposive sampling technique is a non-random sampling strategy that requires neither fundamental theories nor a specific sample size of participants.

At present, the materials sector has 44 firms listed on the Saudi Stock Exchange. The study samples were selected between 2017 and 2021, a period of five years. Some considerations are required when selecting the research data. As a first step, we did not include all firms listed on the Saudi Stock Exchange (Tadawal) after 2021. Additionally, we included firms' reports that failed to retain all research variables and the corresponding data across a period of five years. Specifically, we focused on the materials sector in Tadawal from 2017 to 2021, and all data were filtered to ensure that they met the research requirements. Thirty-five firms were suitable for our analysis. In light of this, the sample size for this research was 175 observations. The sample analysed was made up of 35 firms from the materials sector, each of which was observed during 2017–2021, which makes a total of 175 firm-year observations (35 firms $\times$ 5 years).

As shown in Table 1, the choice of the sample period from 2017 to 2021 was based on the following factors. First of all, this period is associated with a distinct stage in Saudi Arabia's economy after the adoption of Vision 2030 in 2016, which aimed at the diversification of the Saudi economy and the enhancement of growth in sectors other than the oil and materials sectors, in particular. This period also yields reliable financial data. The firms were expected to submit their annual reports in line with the changing reporting requirements during this period. Further, starting the analysis in 2017 allows us to focus only on the post-2016 reforms in corporate governance and disclosure standards in Saudi Arabia that are most relevant to the modern economy and market situation.

Table 1. Sampling from population to observational data.

Steps	Description	Observations
Population	Listed on the Saudi Stock Exchange (Tadawul).	220 firms
Step 1: Sector Selection	The materials sector.	44 firms
Step 2: Time Frame	Available data for the period 2017–2021.	35 firms
Step 3: Exclusion Criteria	The inclusion criteria (e.g., missing data).	9 firms excluded
Final Sample	The final firms.	35 firms
Observations	Five-year period (35 firms' $\times$ 5 years).	175 observations

3.4. Methods of Data Collection

This research consisted of the manual collection of non-financial secondary data from Tadawul's annual reports for companies in the material sector for the years 2017, 2018, 2019, 2020, and 2021. In particular, non-financial data were taken from firms' annual reports, including the external auditor who audited each particular observation and each firm that audited them over the five years. This was so that we could monitor the type of external auditor (whether Big Four or non-Big Four) and how many years each external auditor remained with a particular firm. Having checked the annual reports of companies, we were able to identify who audited them in each fiscal year. This allowed us to determine whether the external auditor was still working with the firm. We also calculated the audit tenure for each firm in the data analysis. Moreover, we manually recorded the firms' age by counting the first year listed as the first year of age. Finally, the non-financial data were significant because they are independent variables considered to examine the impact on financial reports' quality.

Furthermore, the research involved downloading secondary financial data from Victoria University's DataStream for Saudi-listed companies' annual reports for 2017, 2018, 2019, 2020, and 2021. To be more specific, secondary financial data were downloaded to measure the dependent variable: the quality of financial reports. This variable was measured through a discretionary accruals (DACC) ratio modified by Jones (1991). In addition, this variable was controlled for age, size, ROA, and LEV; measuring these control variables also required secondary financial data. To calculate these variables, we gathered the secondary financial data required for the analysis. The financial data were collected from three different financial statements: the balance sheet, statement of income, and statement of cash flows. Accordingly, we collected the following information from the firm's financial statements: current assets, cash, earnings before interest, current liabilities, debt in current liabilities, depreciation and amortisation expenses, total revenues, total receivables, and property plant and equipment. Finally, we downloaded the information required for the analysis, such as standard industry classification (SIC), company name, and fiscal year-end.

3.5. Measurements

Based on the literature reviewed previously, dummy variables were extensively used to identify the type of external auditor firm, that is, Big Four or Non-Big Fours (for example, Chu et al. 2018; Litt et al. 2014; Martani et al. 2021). According to Yean-Allah (2019), the Big Four auditing firms (PwC, KPMG, Ernst & Young, and Deloitte Touche) in Tohmatsu account for the vast majority of the Saudi Arabian audit market. We reviewed each financial report of the firms in the study to determine whether the external auditor was from a Big Four or non-Big Four firm. The measurement of a dummy variable is as follows: 1 if a Big Four external auditor firm audited the firm, and 0 if a non-Big Four external auditor firm audited the company. In light of the literature review previously conducted, auditor tenure was measured as an ordinal variable. This was 1 for three or more years spent by the same external auditor firm with a company and 0 for the year when the external auditor firm changed (for example, Jayeola et al. 2017; Lambe et al. 2022). The last independent variable factor was measured through external auditor rotation or change using a dummy variable for each firm in the research sample. Specifically, this relates to whether a company changes its external auditor or retains the same auditor. Additionally, this measurement examines the impact of replacing the external auditor in each period on financial report quality. We labelled firms that changed their external auditor 1 and 0 if the firm remained with the same external auditor the following year. The minimum value of zero for "audit tenure" was assigned to indicate the year when the external auditor firm changed, following the approach used in previous studies (e.g., Jayeola et al. 2017; Lambe et al. 2022). A value of 0 represents a break in continuity, i.e., the point when a new audit firm was engaged. This approach is consistent with the use of dummy variables to measure audit tenure in similar research.

This research measures the indicator of financial reporting quality via discretionary accruals ratios, which were modified by Jones (1991). Dechow et al. (1995) indicated that a modified Jones (1991) model is the most effective earnings management detector. Therefore, the modified Jones model (1991) is an appropriate indicator of the quality of financial reports, as evidenced by its use across many relevant studies (for example, Manry et al. 2008; Nagy 2005).

3.6. Rationale for Utilising the Modified Jones Model

The efficacy of the modified Jones model (1991) in identifying earnings management warrants its use in measuring financial reporting quality through discretionary accruals (DACC). This novel approach enhances the original Jones model by accounting for fluctuations in sales and receivables, thereby enhancing its ability to separate out the discretionary element of accruals, which is often linked to profit manipulation (Dechow et al. 1995). In accounting research, the modified Jones model is acknowledged as a dependable instrument for evaluating the accuracy of financial reporting, especially in situations where management may have motivations to manipulate net income (Kothari et al. 2005). The justification for using it in this work is its ability to provide a more precise assessment of financial reporting quality, as shown by its usage in many empirical examinations of accrual-based earnings management (Cohen et al. 2008).

The modified Jones model (1991) is calculated in three steps, as follows, with the variables defined in Table 2:

Table 2. Jones model (1991).

Components	Definitions
$TACC_t$	=Total accruals in year t,
ΔCA_t	=Change in current assets in year t,
$\Delta Cash$	=Change in cash and cash equivalents in year t,
ΔCL_t	=Change in current liabilities in year t,
ΔDCL_t	=Change in short-term debt included in current liabilities in year t,
DEP_t	=Depreciation and amortisation expenses in year t.

$$TACC_t = \Delta CA_t - \Delta Cash - \Delta CL_t + \Delta DCL_t - DEP_t \quad (1)$$

As defined below and in Table 3, the modified Jones model (1991) consists of the following components:

$$\frac{TACC_t}{A_{t-1}} = \alpha_1 \frac{1}{A_{t-1}} + \alpha_2 \frac{(\Delta REV_t - \Delta REC_t)}{A_{t-1}} + \alpha_3 \frac{PPE_t}{A_{t-1}} + \varepsilon_t \quad (2)$$

Table 3. Formula components.

Components	Definitions
$TACC_t$	=Total accruals in year t divided by total assets in year $t-1$,
ΔREV_t	=Revenue in year t less revenue in year $t-1$,
ΔREC_t	=Net receivables in year t less net receivables in year $t-1$,
PPE_t	=Gross property (plant and equipment) in year t,
A_{t-1}	=Total assets in year $t-1$,
α_1, α_2, and α_3	=Parameters to be estimated, namely alphas,
ε_t	=Residuals in year t.

The following is the formula used to calculate discretionary accruals:

$$DACC_t = TACC_t - NDACC_t \quad (3)$$

A number of control variables are associated with accrual determinants, which play a significant role in measuring financial reporting quality. The researchers include age as a control variable because accruals differ with changes over a company's life cycle (Anthony and Ramesh 1992; Dechow et al. 2001). The researchers also include size, which is the ratio of total assets, often defined as the log of total assets, because large companies are more likely to accumulate greater and more steady accruals (Dechow and Dichev 2002). In addition, return on assets (ROA) has been used in this study to control for the probability that financial performance early in an auditor's tenure may be responsible for the correlation between auditor tenure and accruals (DeFond and Park 1997; DeFond and Subramanyam 1998). A ROA approach was proposed by Kothari et al. (2005) as an effective method of controlling for extreme operating performance, which affects the estimation of discretionary accruals (for instance, Alhadab et al. 2015; Cohen et al. 2008). Finally, leverage (LEV) is one of the control variables in this study, as suggested by Chu et al. (2018), as leverage and accruals have been clearly associated (for instance, Butler et al. 2004).

As shown in Figure 1, we ran a regression analysis to test the study hypotheses. The following regression equation illustrates this: the dependent variable is the quality of financial reports, measured by discretionary accruals (DACC), and the independent variables are Big Four (Big4), audit tenure (A_tenure), and auditor change (A_change). For this regression model, the control variables were leverage (LEV), return on assets (ROA), size, and age. Based on regression analysis, we explored whether Big Four audit firms, audit tenures of three years or more, and changing auditors affected the quality of listed companies' financial reports in Saudi Arabia. All the variables used in this model are defined in Appendix A.

$$DACC_t = \beta_0 + \beta_1 \text{ Big4 } t + \beta_2 \text{A\_tenure } t + \beta_3 \text{ A\_change } t + \beta_4 \text{ LEV } t + \beta_5 \text{ ROA } t + \beta_6 \text{ Age } t + \beta_7 \text{ Size } t\ \varepsilon_t \quad (4)$$

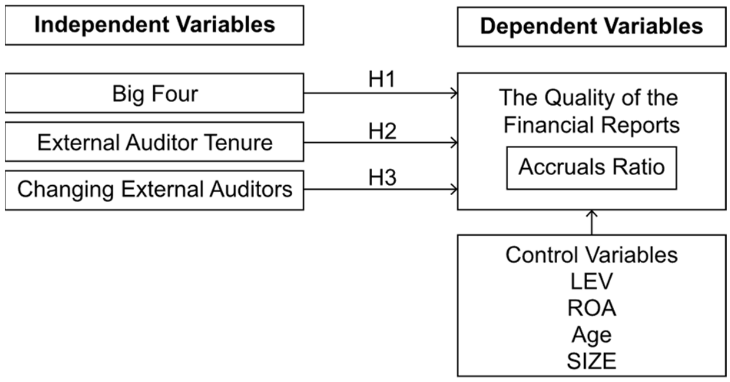

Figure 1. Conceptual framework.

4. Results

4.1. Descriptive Statistics

Table 4 provides descriptive statistics for the secondary data collected on the 35 listed Saudi Arabian companies during the five-year period—a total of 175 observations from 2017 to 2021. These data files were checked against the criteria described in the previous chapters to ensure accuracy. According to the descriptive statistics in Table 4, discretionary accruals (DACC) are indicative of the quality of financial reports (FRQ) at a mean of −0.0355 and (SD = 0.013). As shown in this descriptive analysis, 38% of the listed firms were audited by the Big Four (0.38), and 62% were audited by non-Big Four audit firms. Therefore, the listed firms in the data preferred to have their audits performed by firms other than the Big Four. Furthermore, most listed firms have been audited for three or more years by the same audit firms; as shown below, 64% have three-year auditor tenures. However, 20% of the companies changed their external auditors every fiscal year. Based on the average leverage ratios (LEV), 33% of firms' assets were financed through debt (SD = 0.227). Based on the firms' return on assets (ROA), the average company had a ratio of 4% of its operating income to total assets. According to descriptive statistics, the average age ratio of companies was 2.8%, which is 17 years. The maximum firm age was 26 years and the minimum firm age was 7 years. As a final point, the average size of the firms was 8.064, the minimum size was 5.499, and the maximum size was 12.683.

Table 4. Descriptive analysis.

Numbers	Variables	Observations. N	Mean (%)	SD	Min	Max
1	DACC	175	−0.0355	0.0135	−0.0641	0.0045
2	Big4	175	0.3829	0.4875	0.0000	1.0000
3	A_tenure	175	0.6400	0.4814	0.0000	1.0000
4	At_change	175	0.2000	0.4011	0.0000	1.0000
5	LEV	175	0.3396	0.2277	0.0082	0.9210
6	ROA	175	0.0451	0.0727	−0.1539	0.5883
7	Age	175	2.8157	0.3008	1.9459	3.2581
8	Size	175	8.0648	1.5152	5.4993	12.683

In addition, the correlation matrix in Table 5 shows the relationships between discretionary accruals (DACCs), the Big Four audit firms, audit tenure of more than three years, auditor change variables, and the control variables LEV, ROA, age, and size. DACCs were positively associated with Big4 (p-value = 0.009) and A_tenure (p-value = 0.129). However, Big4 firms were negatively and strongly correlated with A_change (p-value = 0.041) and LEV (p-value = 0.021), as well as positively and strongly correlated with A_tenure (p-value = 0.076). An external auditor of a company, if one of the Big Four, is most likely to remain with them for at least three years. In addition, the correlation between Big4 and LEV means that Big4 firms audit companies with fewer high-leverage risks. It has been shown that as leverage increases, more risk is connected with the firm, and, therefore, equity capital costs become more expensive (Fama and French 1992; Gebhardt et al. 2001; Modigliani and Miller 1958). There was a negative correlation between discretionary accruals and auditor changes (p-value = 0.018). In contrast, discretionary accruals were positively associated with LEV (p-value = 0.019), ROA (p-value = 0.199), age (p-value = 0.143), and size (p-value = 0.009).

Table 5. Correlation matrix.

Variables	DACC	Big4	A_tenure	A_change	LEV	ROA	Age	Size
DACC	1.000							
Big4	0.009	1.000						
A_tenure	0.129	0.076	1.000					
A_change	−0.018	−0.041	−0.548 *	1.000				
LEV	0.019	−0.021	0.006	0.004	1.000			
ROA	0.199 *	0.358 *	−0.081	0.016	−0.381 *	1.000		
Age	0.143	0.079	−0.309 *	0.168	−0.012	0.072	1.000	
Size	0.009	0.582 *	0.087	−0.041	0.124	0.246 *	0.007	1.000

* $p < 0.1$.

4.2. Regression Analysis

In Table 6, the regression model outputs are examined to answer the research questions. This table illustrates how the independent variables impact the quality of Saudi-listed companies' financial reports. As shown in Table 3, the regression model is statistically significant at a level of 1%. This regression model illustrates that the dependent variable is discretionary accruals (DACC), which measures the quality of financial reports. In addition, the independent variables are Big Four (Big4), audit tenure (A_tenure), and auditor change (A_change). As Table 3 shows, there is a significant negative relationship between Big4 and DACC. The result shows that the relationship is significant at −0.0017 **. This indicates that the companies that were audited by Big4 are negatively associated with DACC. This outcome allows us to confirm hypothesis H1, which states that there is a positive correlation between Big Four audit firms and the quality of listed companies' financial reports in Saudi Arabia.

Table 6. Regression analysis.

Independent Variables	Dependent Variable (DACC)
Big4	−0.0076
	(−2.37) **
A_tenure	0.0054
	(2.02) **
A_change	0.0036
	(1.27)
LEV	−0.004
	(−0.60)
ROA	0.054
	(3.91) ***
Age	0.0114
	(2.98) ***
Size	0.0008
	(0.78)
_cons	−0.0761
	(−6.41) ***
R^2	0.3542
F	5.61
Prob > F	0.000
N	175

*** $p < 0.01$, ** $p < 0.05$.

In addition, Table 6 demonstrates a significant positive correlation between A_tenure and DACC. The output shows that the correlation is significant at 0.0054 **. Companies that have been audited by external auditors for three or more years are positively correlated with DACC. This outcome leads us to reject hypothesis H2, which suggests that an external auditor firm's tenure of three or more years with a given company is positively associated with the quality of listed companies' financial reports in Saudi Arabia. Moreover, Table 3 shows a positive, but not significant, relationship between A_change and DACC. The correlation is not significant at 0.0036. This indicates that the DACC has no significant relationship with companies that have changed their external auditors. As a result, hypothesis H3, which proposed that external auditor change is positively associated with the quality of listed companies; financial reports in Saudi Arabia can be rejected. This finding suggests that changing auditors does not result in better financial statements for companies.

Furthermore, as shown in Table 6, there is a highly positive association between DACC, ROA, and age as controlling variables. The result shows that ROA is 0.054 *** and age is 0.0114 ***. However, Table 3 shows that the control variable LEV is negatively related to DACC, with a negative correlation of −0.004. In addition, Table 3 illustrates that there is no significant relationship between size as the controlling variable and DACC. The results show that the correlation is not significant at 0.0008.

4.3. Robustness Analysis

According to Table 7, in each of the sub-samples, there was a significant difference in Big4 auditors, LEV, ROA, and size on DACC. As for the results in the two sub-samples of large firms and high ROA, which are considered to be more sensitive to auditor tenure, it can be seen that no independent variables, including Big4 auditors, affect DACC. In addition, the explained variance of the models is very low, R^2 = 0. 014 for large firms and R^2 = 0. 120 for a high degree of operating gearing, as other researchers, such as Becker et al. (1998) suggest.

Table 7. Robustness test results: sub-sample analysis for firm size and ROA.

Variables	Large Firms	Small Firms	High ROA	Low ROA
Big4	−0.0103 (0.462)	−0.0205 (0.377)	0.0032 (0.791)	−0.0141 (0.596)
LEV	−0.0226 (0.554)	−0.0370 (0.256)	0.0244 (0.417)	−0.1009 (0.008) ***
ROA	−0.0147 (0.878)	0.4023 (0.007) ***	-	-
Size	-	-	−0.0048 (0.253)	0.0087 (0.279)
Constant	0.0126 (0.461)	−0.0027 (0.863)	0.0314 (0.322)	−0.0324 (0.577)
R^2	0.014	0.139	0.020	0.089
F-stat	0.400 (0.753)	4.460 (0.005)	0.561 (0.642)	2.689 (0.0516)

*** $p < 0.01$.

In contrast, the findings reveal that, for small firms, ROA is significantly positively correlated with DACC, suggesting that profitability is a critical determinant of accrual management in small firms (p = 0.007) (Toumeh et al. 2021). In the same manner, leverage has a negative relationship with DACC in the low-ROA group, whereby the effect is statistically significant at p = 0.008, indicating that firms with limited profitability and a high leverage ratio are not likely to use high discretionary accrual (Kharuddin et al. 2021). Nonetheless, across all sub-samples, Big4 auditing remains insignificant, which suggests that having a Big4 auditor does not significantly affect discretionary accruals in the groups analysed (Abid et al. 2018).

This implies that profitability and leverage might be relevant for small or low ROA firms; however, Big4 auditors seem not to impact discretionary accruals in this set.

5. Discussion

5.1. Big Four Firms and Financial Report Quality

The outcome in Table 3 led us to accept hypothesis H1, which states that there is a positive correlation between Big Four auditors and the quality of listed companies' financial reports in Saudi Arabia. This indicates that companies that were audited by Big Four firms are negatively associated with discretionary accruals. There is consistency between this result and Sadiq and Othman's (2017), which is that Big Four firms are significantly negatively correlated with discretionary accruals. This suggests that companies audited by Big Four external auditors exhibit a higher level of financial reporting quality than those audited by non-Big Four external auditors. The Big Four audit firms have reduced companies' accrual-based earnings management activities (AEM). This result is also in line with Becker et al. (1998), who similarly found that discretionary accruals are significantly higher for companies with non-Big Six auditors than they are for companies with Big Six auditors. Furthermore, this result is consistent with Khurana and Raman (2004) and Behn et al. (2008), who determined that Big Four auditors provide a superior level of quality in financial reports than non-Big Four auditors.

However, some prior research is inconsistent with the findings of this study. For instance, according to Boone et al. (2010), there are no significant differences between Big Four and non-Big Four customers in terms of performance-adjusted abnormal accruals for either group. In addition, Cassell et al. (2013) revealed that non-Big Four clients were not differentiated from Big Four-audited customers when it came to the credibility of their financial statements. It has been reported by Geiger and Rama (2006) that there are no notable distinctions between customers of Big Four and non-Big Four firms when it comes to discretionary accruals.

While it is often believed that Big Four audit firms improve the quality of financial reporting, not all studies agree. For example, Zaafaranie et al. (2024) found that the length of time an auditor has worked with a client or whether a company switches auditors does not seem to affect the quality of the audit. This challenges the common idea that hiring Big Four firms always leads to better financial reports. Similarly, Fernandez et al. (2024) discovered that a firm's reputation, including that of the Big Four, does not necessarily mean that its financial reports are of higher quality. However, the size of the client may be more important. Adding to this complexity, Morasa et al. (2024) found that, in Indonesia, it is the company size, not the type of audit firm, that plays a key role in determining audit quality.

These findings remind us that the connection between a firm's reputation and financial report quality is not straightforward and may depend on factors such as the region or study approach. While the Big Four are often seen as leaders in producing high-quality audits, the evidence is not consistent across the board.

5.2. Auditor Tenure and the Quality of the Financial Reports

The results in Table 3 led us to reject hypothesis H2, which suggests that an external auditor firm tenure of three years or more with a given company is positively associated with the quality of listed companies' financial reports in Saudi Arabia. It appears that companies that have been audited by external auditors for three or more years have a positive correlation with discretionary accruals. Therefore, the longer the auditor's tenure, the higher the DACC, which results in poor financial reporting quality. This result is consistent with the findings of Mgbame et al. (2012), who propose that auditor independence and financial reporting quality may be adversely affected when compulsory auditor rotation is absent or when there is infrequent turnover of auditors.

Further inconsistencies identified in comparison with existing research include the fact that some studies have reported that companies with long-term auditor tenure tend to have superior financial reporting quality and are less likely to engage in accrual earnings management activities (e.g., Hohenfels 2016; Malik 2016; Onwuchekwa et al. 2012). Moreover, auditors gain more in-depth knowledge and information when they have been working with clients for a long time. Furthermore, El Guindy and Basuony (2018) argue that the tenure of an audit firm does not influence the independence of the auditor, while an improvement in the quality of financial reporting is a result of extended tenure.

The rejection of hypothesis H2, which proposes that a longer auditor tenure leads to better financial report quality, aligns with recent research findings. Studies such as those by Zaafaranie et al. (2024) and Morasa et al. (2024) found that the length of time an auditor stays with a client does not impact audit quality. Instead, factors such as the size of the company and the fees paid for the audit seem to matter more. Similarly, Fernandez et al. (2024) also found no significant link between audit tenure and audit quality, again suggesting that larger companies and higher audit fees have a greater influence on audit outcomes.

However, Hadji (2024) introduced an interesting twist: while audit tenure alone might not make a difference, it can become necessary when combined with audit rotation. This suggests that several factors may work together to improve audit effectiveness. These studies suggest that the relationship between auditor tenure and financial report quality is more complicated and context-specific than we assumed.

5.3. Auditor Change and the Quality of the Financial Reports

It has been postulated that external auditor changes are positively associated with the quality of listed companies' financial reports in Saudi Arabia. As a result, H3 is rejected, as there is no evidence to suggest that changing auditors results in better financial statements for companies. It is noteworthy that the results of this study are consistent with those of Walker et al. (2001) and Knechel and Vanstraelen (2007), who found that tenure has neither a positive nor negative impact on the quality of financial reports. Similarly, several studies have found that an insufficiently long external auditor tenure is correlated with poor quality of financial reports (Geiger and Raghunandan 2002; Johnson et al. 2002; Myers et al. 2003). However, the results of this research have been found to be incongruent with existing research. Some studies have suggested that rotating audit firms may enhance the quality of financial reports (e.g., AICPA 1992; Carcello and Nagy 2004; Healey and Kim 2003; Mautz and Sharaf 1961). Having a long relationship with an audit firm leads to errors not being discovered, which in turn impairs financial reporting quality. If external auditors become familiar with clients, they may have a diminished ability to see things from a fresh perspective.

Recent studies indicate that the size of an audit firm and the length of its relationship with a client may have a greater influence on audit quality than switching auditors frequently. For example, Salman and Setyaningrum (2023) found that rotating auditors does not make much of a difference in audit quality. Instead, larger audit firms and longer auditor–client relationships improve audit quality by easing conflicts between managers and stakeholders. Similarly, Zaafaranie et al. (2024) showed that audit fees significantly impact audit quality, while audit tenure and switching auditors do not play much of a role.

Fernandez et al. (2024) also found that larger companies and higher audit fees are linked to better audit quality, stressing that company characteristics and audit fees matter more than how long an auditor stays or their reputation. Morasa et al. (2024) further highlighted that it is the size of the company, not the length of the auditor relationship, that really influences audit quality, as larger companies tend to follow stricter standards. Lastly, Hadji (2024) pointed out that while audit tenure or rotation alone might not significantly affect audit quality, when combined, they can improve outcomes.

5.4. Contribution to Knowledge

One of the most significant advantages of this study is that it can be compared with prior research. For instance, Zaafaranie et al. (2024) investigated audit quality in the financial sector of Indonesia and discovered that audit tenure and auditor switching did not affect audit quality. On the other hand, this study found a negative relationship between the length of audit tenure and the quality of financial reports in Saudi Arabia. This emphasises that the conditions of regulation and markets must be taken into account when evaluating audit characteristics, as the audit environment in Saudi Arabia is different from that in Indonesia.

The data collected from 2017 to 2021 capture a period of change in Saudi Arabia, as Vision 2030 reforms sought to change corporate governance and transparency. This period is useful for understanding how financial reporting and audit practices have developed alongside these reforms. For example, Fernandez et al. (2024) established that the overall audit quality was higher in larger firms, especially when they paid more for audit services. However, while Fernandez et al. (2024) found no significant effect on audit tenure, our study showed that longer audit tenures in Saudi Arabia are associated with a lower quality of financial reports. This implies that audit dynamics, especially tenure, may differ from one region to another.

This research also examines the relationship between auditor characteristics, including auditor type (Big Four and non-Big Four), audit tenure, and auditor changes, and the quality of financial reports, as captured by DACC. These variables provide a better understanding of the different audit practices that exist in Saudi Arabia. In support of the arguments made by Salman and Setyaningrum (2023), the results of the current study indicate that the quality of financial reports is positively influenced by the size of the audit firm, especially for Big Four auditors. However, they concluded that a longer audit tenure enhances audit quality, which is contrary to our observation in Saudi Arabia. This goes to show that audit practices are not simple and that the regional regulatory environment plays a crucial role. In the same way, Hadji (2024) posited that tenure and audit rotation affect audit quality, but the current study found that auditor changes have no effect on the quality of financial reports, thus emphasising the geographical differences in audit patterns.

From a policy perspective, these outcomes are rather important for understanding the nature of corporate governance in Saudi Arabia. The overall findings suggest that policymakers should consider the nature of the effects of both auditor tenure and auditor type on the quality of financial reports while establishing rules and regulations on auditor tenure and rotation. Hence, similar to what was stated by Apriani et al. (2024), they found that company size is crucial to audit quality. Our study reveals that ROA and company age have a significant effect on the quality of financial reports, whereas LEV is negatively associated. The findings presented here can assist in the development of policies that take into account the auditor or company-level characteristics.

In theoretical terms, this research contributes to the body of knowledge on the impact of auditor tenure on aspects of auditor independence and objectivity, especially in parts of the world that are in the process of implementing changes in corporate governance. Following the arguments provided by Salman and Setyaningrum (2023), larger auditing firms do contribute to reducing the agency costs of manipulation between managers and outsiders, including shareholders—a result in line with the hypothesis on Big4 auditors. However, the study continues the discussion by showing that auditor–client relationships of more than three years decreased the quality of financial reports in Saudi Arabia, while in Indonesia, tenure did not affect audit report lag (Valentina and Abbas 2024). These highlighted studies shed light on Saudi Arabia's specific political and legal systems and their relationship to auditor independence so as to inform future policies on auditor selection and tenure.

6. Conclusions

This research demonstrated that the use of agency theory offers significant insights into the influences of auditor type, tenure, and changes on the quality of financial reporting in Saudi Arabia. The inverse relationship between the Big Four auditors and discretionary accruals highlights the need to conduct top-notch, autonomous audits to reduce conflicts of interest between individuals in positions of ownership and managers acting as agents. Nevertheless, the notable positive association between longer tenure and higher amounts of discretionary accruals underlines a possible danger: lengthy interactions between auditors and clients may undermine the impartiality of auditors, as proposed by agency theory. The absence of a substantial correlation between changes in auditors and the quality of financial reporting implies that simply replacing auditors is insufficient to improve audit quality. Therefore, this study makes a substantial contribution to the development of optimal methods for choosing appropriate audit periods and rotations of external auditors that guarantee their autonomy of external auditors, thereby promoting more openness in financial reporting within the auditing profession in Saudi Arabia. However, the timing and circumstances of these amendments have had a crucial influence. Although this research offers valuable insights, its five-year data period limits its ability to comprehensively capture the long-term impacts of auditor tenure and changes. Future studies might expand the scope by covering a longer time frame and/or examining how Saudi Arabia's corporate governance laws are changing. This will provide a more thorough understanding of the ways in which these variables impact the quality of audits and the openness of financial management in reaction to continuous economic transformation.

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Appendix A

Table A1. Variable definitions.

Variable	Definition
DACC	Discretionary accruals are a measure of accruals that are part of the total accruals in a firm's total balance sheet and are created to manage profits or convey private information about the firm's future performance (Subramanyam 1996).
Big4	The four largest auditing firms in the world. According to Yean-Allah (2019), the Big Four auditing firms account for the vast majority of the Saudi Arabian audit market: PwC, KPMG, Ernst & Young, and Deloitte Touche Tohmatsu (value of 1 if the company was audited by Big4; otherwise, 0).
A-tenure	Audit tenure refers to the length of time an external auditor has continuously audited the same company. Specifically, this variable examines whether an external auditor's tenure of three years or more impacts the quality of the company's financial statements. In this study, audit tenure is measured as follows: if the external auditor has remained with the same company for three or more consecutive years, it is assigned a value of 1; otherwise, it is assigned a value of 0.
At-change	Auditor change is a variable that indicates whether a firm has switched its external auditor. It is measured as follows: if a firm changes its external auditor, the value is assigned as 1; if the firm retains the same external auditor in the following year, the value is assigned as 0.
LEV	Leverage (LEV) is a control variable in this study, as suggested by Chu et al. (2018), due to the well-established association between leverage and accruals (e.g., Butler et al. 2004). LEV is calculated by scaling total liabilities by the prior year's total assets. Leverage (LEV) is a control variable measured as the ratio of a firm's total liabilities to its total assets from the prior year, reflecting the company's debt level relative to its assets.

Table A1. *Cont.*

Variable	Definition
ROA	Return on Assets (ROA) is a business gauge used to assess the ability of the whole affair to generate operational revenue from all the tangible and intangible assets invested in a business. The ratio is calculated using equity and operation income, as well as operation increase and total assets in the firm. The main reason for adopting this ratio is to reduce the influence of high operational performance when estimating discretionary accruals, as postulated by Kothari et al. (2005). The data disclosed in the model represent the extent to which a firm is capable of generating profits from its assets; a higher ROA means higher utilisation of assets, while a lower ROA means less effective use of assets.
Size	Size (SIZE) is a control variable defined as the natural log of total assets, reflecting that larger companies are more likely to accumulate greater and more stable accruals (Dechow and Dichev 2002).
Age	Age (AGE) is a control variable measured as the number of years for which a company has reported total assets in Research Insight since 1982, reflecting changes in accruals over the company's life cycle (Anthony and Ramesh 1992; Dechow et al. 2001).

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