

Auditor characteristics and the financial reporting quality: the moderating role of the client business strategy

The client
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27

Afsaneh Soroushyar

Department of Accounting, Isfahan (Khorasgan) Branch, Islamic Azad University,
Isfahan, Iran

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Abstract

Purpose – This study examines whether and how a client’s business strategy can affect the relationship between auditor characteristics and financial reporting quality.

Design/methodology/approach – In this study, auditor industry specialization and tenure were used as proxies for auditor characteristics. The client business strategy was measured using the resource allocation index method. Finally, discretionary accruals are used to assess financial reporting quality. This study includes 1,450 firm-year observations and 145 companies listed on the Tehran Stock Exchange (TSE) over a ten-year period from 2011 to 2020. The research hypotheses were analyzed using a multivariate regression model and panel data.

Findings – The results show that auditor industry specialization increases financial reporting quality. This relationship improves when the client’s business strategy deviates from the industry-normal strategy. The research findings state that auditor tenure has a positive association with financial reporting quality, and this relationship is strengthened when the company’s business strategy deviates from the normal industry strategy.

Practical implications – The findings of this study provide important evidence for investors, firm management, and auditing firms. Investors must consider the auditor characteristics when selecting companies listed on the TSE. Managers of Iranian companies are advised to consider the auditor’s characteristics when choosing an audit firm to increase financial reporting quality. Audit firms should evaluate their business strategies in audit planning to increase the quality of financial reporting.

Originality/value – To the best of the authors’ knowledge, this is the first empirical study to examine the relationship between auditor characteristics and the financial reporting quality in the emerging capital market by considering the clients’ business strategy.

Keywords Auditor industry specialization, Auditor tenure, Client business strategy, Financial reporting quality

Paper type Research paper

1. Introduction

The issue of financial reporting quality has always been of interest to researchers, accounting standards-setting bodies, and the accounting profession (Gaynor *et al.*, 2016; Hassan and Bello, 2013). To achieve this goal, accounting standards-setting bodies have attempted to improve the quality of information by changing the conceptual framework. Additionally, based on agency

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Erratum: It has come to the attention of the publisher that the article Soroushyar, A. (2023), “Auditor characteristics and the financial reporting quality: the moderating role of the client business strategy”, *Asian Journal of Accounting Research*, Vol. 8 No. 1, pp. 27-40. <https://doi.org/10.1108/AJAR-01-2022-0020>, was originally published with the tables/figures presented as supplementary material via external links that do not meet Emerald’s latest repository requirements; these have now been amended and the supplementary material hosted here to ensure that it remains accessible in perpetuity: <https://doi.org/10.1108/AJAR-01-2022-0020>



theory, it is necessary for auditing firms to evaluate accounting information to reduce the information asymmetry between managers and users of accounting information (Bushman and Smith, 2003). Auditors seek to enhance financial reporting quality and ensure accounting information by applying accounting and auditing standards. Many empirical studies on audit services show that auditor characteristics such as expertise and tenure, are positively associated with the quality of financial reporting (Carcello and Nagy, 2004; Gul *et al.*, 2013; Yuan *et al.*, 2016; Sari, 2018; Mashaykhi *et al.*, 2018). However, there is little empirical evidence on the moderating role of client characteristics in the relationship between auditor characteristics and financial reporting quality (Carcello and Nagy, 2004; Yuan *et al.*, 2016). In addition, Iranian Auditing Standard (IAS) No. 315, which is similar to International Standard on Auditing (ISA) No. 315, requires auditors to have sufficient knowledge of the company's strategies and business risks when planning the audit. Previous empirical evidence suggests that client characteristics (e.g. client business strategy and client size) are associated with the quality of financial reporting (Carcello and Nagy, 2004; Yuan *et al.*, 2016; Mashaykhi *et al.*, 2018). Business strategy is very important in the development of a company and determines the direction of its progress and development over time. Some companies use the industry's conventional strategy in their industry to avoid risk and move forward steadily. However, some companies use different strategies to take higher risks and create wealth for stakeholders (Chen, 2021). Yuan *et al.* (2016) argue that a firm's business strategy can moderate the relationship between auditor industry specialization and discretionary accruals. Chen *et al.* (2017) find that a company's business strategy can affect the type of auditor's report. The research results of Mashaykhi *et al.* (2018) in the Iranian capital market show that a company's business strategy moderates the relationship between auditor industry specialization and audit quality.

This study examines how the client business strategy (i.e. strategy deviation) moderates the relationship between auditor characteristics and financial reporting quality. In previous research such as Tang *et al.* (2011) and Yuan *et al.* (2016) strategy deviation refers to situations in which the client strategy deviates from industry strategy norms. Strategy deviation is conceptually underpinned by the notion of firm conformity (DiMaggio and Powell, 1983). Firm conformity allows companies to adopt similar strategies in the industry. According to neo-institutional theory, many companies tend to follow industry norms because doing so will gain legitimacy and resources, reduce performance uncertainty, and increase company survivability (DiMaggio and Powell, 1983; Tang *et al.*, 2011). However, Tang *et al.* (2011) point out that ambiguity or overconfidence in managers leads to the non-acceptance of industry norms and strategy deviation chosen to achieve extreme performance.

Client strategy deviation can influence audit characteristics (e.g. auditor industry specialization and auditor tenure). Yuan *et al.* (2016) and Sari (2018) argue that client strategy deviation can lead to industry-specific auditors having knowledge advantages. They point out that expert auditors are more likely than non-expert auditors to encounter companies with deviant strategies, and therefore have more knowledge. Previous empirical research shows that strategy deviation can affect auditor tenure (Yuan *et al.*, 2016; Srinidhi *et al.*, 2010; Almutairi *et al.*, 2009). Yuan *et al.* (2016) pointed out that companies with deviant strategies are more likely to have information asymmetry problems. Thus, with an increase in auditor tenure, it can be expected that the auditor's knowledge of the strategy deviant will increase. Srinidhi *et al.* (2010) argue that with longer tenure periods, the auditor's learning of client-specific knowledge is expected to better complemented. Chen *et al.* (2017) state that a company's business strategy is associated with the type of auditor reporting (i.e. going concern and material weakness). The results of research by Bentley *et al.* (2013) showed that the firm business strategy affects the quality of financial reporting and auditor fees. Considering agency theory, neo-institutional theory, and the requirement of auditing standards, this study examines the moderating role of client characteristics on the relationship between auditor characteristics and financial reporting quality in the Iranian capital market.

This study fills a gap in the literature by addressing the associations of client characteristics (e.g. client strategy) with the relationship between auditor characteristics (auditor industry specialization and auditor tenure) and financial reporting quality. The authors have motivated several reasons to choose the Iranian capital market as a suitable case for this research. First, a review of previous research shows that the role of client characteristics such as business strategy, which is also emphasized in audit standards, has received very little attention. Also, in previous studies, only the relationship of auditor industry specialization has been examined and auditor tenure has been ignored (Yuan *et al.*, 2016; Sari, 2018; Mashaykhi *et al.*, 2018). In other words, previous studies have not examined the association of client business strategy with the relationship between auditor characteristics (i.e. auditor tenure) and financial reporting quality. Second, during the research period, Securities and Exchange Organization (SEO) of Iran required the use of trusted auditors' services. Under these regulations, trusted auditing firms are evaluated annually. Some of their scores are related to client recognition and financial reporting quality. This can increase competition in the auditing market. Therefore, these rules regarding the acceptance and evaluation of trusted audit firms can increase auditor's willingness to perform specialized tasks and lead to a change in the quality of financial reporting. In addition, in previous studies conducted in Iran and other countries, two dominant frameworks (i.e. Poner, 1980; Miles and Snow, 1978) have been used to measure business strategies. However, in this study, the authors emphasize the conformity (homogeneity) strategy in the industry, which has not been studied in the Iranian capital market. Finally, considering the economic sanctions and liquidity problems of companies listed on the Tehran Stock Exchange (TSE) during the research period, companies use the available resource allocation model to determine their business strategy. This study contributes to the literature in three ways: First, Iranian Auditing Standard (IAS) No. 315 emphasizes recognizing a clients' strategy and business risks in their audit planning. The results of this study indicate the association of the client's business strategy with the relationship between the auditor characteristics and the financial reporting quality. Thus, the research results support this audit standard. Second, the experimental results of this research can contribute to literature on the strategic management and the financial reporting quality. Finally, the results of this study indicate that the knowledge gap hypothesis exists not only for the auditor industry specialization but also for other auditor characteristics (i.e. auditor tenure).

Using 145 companies listed on the TSE from 2011 to 2020, the results show that client strategy deviation affects the relationship between auditor characteristics (auditor industry specialization and auditor tenure) and financial reporting quality. In other words, the relationship between auditor characteristics and the quality of financial reporting improves when the firm has a strategy diversion. This result is consistent with the knowledge gap hypothesis for audit firms. The remainder of this paper is recognized as follows. Section 2 presents the related theory, develops the research hypothesis, and reviews previous studies. Section 3 describes the research design and data collection. Section 4 presents empirical results. Finally, Section 5 presents our conclusions.

2. Related literature and hypothesis development

2.1 The Iranian audit market and client business strategy

Before the Iranian Revolution, international auditing firms (i.e. 4 Big firms) were active in Iran. However, with the beginning of the Iranian revolution in 1979, most companies in Iran became nationalized and their ownership became state-owned. These companies' auditing was entrusted to government auditors. The Iranian Auditing Organization (IAO) was established after the consolidation of these government auditors in 1987. In order to develop and grow economically, the government adopted privatization measures. Thus, in addition to

state-owned companies, the IAO has audited private companies. With the change in economic conditions, the Ministry of Economy passed the Law on the “Use of Certified Public Accountants” in 1993. However, this law was implemented in Iran in 2001 and led to the establishment of the Iranian Association of Certified Public Accountants (IACPA). Therefore, private companies are allowed to use the services of certified public accountants. With increasing competition in the Iranian auditing market, many clients switched from government auditors to private auditors. Iranian Securities and Exchange Organization’s (SEO) rule restricts the TSE listed firms’ auditor choice “SEO’ trusted auditors”, which includes the IAO and private audit firm.

Business strategy refers to how companies compete in an industry or competitive market (Olson *et al.*, 2005). Strategy management schools have categorized business strategies from different perspectives. The two dominant frameworks of business strategies are Poner (1980) and Miles and Snow (1978). Poner’s (1980) strategy focuses on customers and competitors, and Miles and Snow’s (1978) strategy focuses on the desire to change products and markets. Little research has been conducted in the Iranian capital market on business strategy and they have used dominant views (Tanani and Mohebkhah, 2014; Barzide *et al.*, 2019). In addition, similarity or different strategies of a company in the same industry can create a competitive advantage. Finkelstein and Hambrick (1990) call this tendency strategic conformity (homogeneity). This implies that firms in the same industry consciously imitate on another. However, a strategy deviant (heterogeneity) is created when the company’s strategy differs from that of similar companies in the industry and deviates from the industry norm. Lime *et al.* (2020) focusing on industrial organization (IO), resource-based view (RBV), and competitive dynamics, have proposed that a firm strategically different from others in the same industry can outperform its peers. This strategic classification in the Iranian capital market has not been studied and the purpose of this study is to examine business strategy based on strategic deviants.

2.2 Industry specialization and financial reporting quality

Auditor industry specialization refers to the accumulated specialized knowledge the auditor has gained from providing audit services to many clients in the same industry (Gul *et al.*, 2009). An expert auditor is a person who has acquired knowledge and experience of the audit process in a particular industry. A review of the auditor industry specialization literature shows that auditor specialization in the relevant industry has a high level of knowledge, and therefore, the quality of financial statements is higher. Many studies have examined the relationship between auditor industry specialization and financial reporting quality (e.g. Havasi and Darabi, 2016; Minutti-Meza, 2013; Sun and Liu, 2012; Li *et al.*, 2010). Client strategy deviation indicates the extent to which the client’s business strategy deviates from industry strategy norms. The client strategy deviation is based on the company-realized resource allocation model provided by Mintzberg (1978) and Mintzberg *et al.* (1998). DiMaggio and Powell (1983) found that firms usually follow a corporate strategy similar to that of their industry peers because strategy deviation reduces shareholder confidence and corporate legitimacy. As a result, fewer external resources are available to the company. However, ambiguity or overconfident managers cause a company to deviate from industry strategy norms (Tang *et al.*, 2011). The knowledge gap hypothesis is used to investigate strategy deviations in the relationship between auditor industry expertise and financial reporting quality (Yuan *et al.*, 2016; Sari, 2018). The knowledge gap hypothesis is based on the idea that the knowledge advantage of industry specialists causes an auditor industry specialization to have more knowledge than that of a non-expert auditor (DiMaggio and Powell, 1983). Findings from previous empirical research show that expert auditors have excellent knowledge of the industry, operations, and business of the client; therefore, the industry

expert auditor can better assess the risks associated with the firm's strategy (Moroney, 2007). Yuan *et al.* (2016) point out that expert auditors can better assess the deviant client accounting policies and procedures because non-specialist auditors in assessing the actual financial performance of the client try to compare the client's performance with a similar company in the industry. Therefore, a non-specialist auditor may find it difficult to find a suitable benchmark for evaluating accounting policies and procedures in the industry. Finally, clients with a strategy deviation are also more likely to have information asymmetry problems because users of accounting information are unable to understand the business model and company strategy deviation (Yuan *et al.*, 2016). Bentley-Goode *et al.* (2019) examine whether a firm's business strategy affects its information environment. Their research showed an association between business strategy and information asymmetry. Yuan *et al.* (2020) examine the relationship between a firm's business strategy and its corporate social responsibility (CSR) performance. These results suggest that business strategy is an important determinant of CSR performance. Habib and Hasan (2020) investigated association between firm-level business strategies and the readability of narrative disclosures in annual reports. Their research showed an association between business strategy and readability of narrative disclosures. Overall, it can be argued that the client strategy deviation can widen the information gap between expert and non-expert auditors. Thus, the first hypothesis of this study is as follows:

- H1.* The positive association of auditor industry specialization on the financial reporting quality increases when companies deviate from their business strategy.

2.3 Auditor tenure and financial reporting quality

The main purpose of the audit is to determine whether the information presented in the financial statements reflects the results of performance and financial position fairly. An important factor that can diminish this purpose is auditor tenure, because as auditor tenure increases, the auditor becomes more dependent on the client and financial reporting quality decreases. However, opponents argue that auditors can gain a great deal of experience and knowledge of the company's operations and system processes over time, thereby increasing financial reporting quality (Patterson *et al.*, 2019; Chen *et al.*, 2008). DeFond and Zhang (2014) reviewed the auditor tenure literature and concluded that the results of previous research indicate that long tenure can enhance financial reporting quality. Recent research has also documented that financial reporting quality can be enhanced by an auditor's long tenure (Cameran *et al.*, 2015; Patterson *et al.*, 2019). Ghosh and Moon (2005) argue that auditors can better detect errors and misstatements of financial statements by having specialized knowledge of the client's operations, accounting systems, and internal control structures. Previous empirical evidence shows that the auditor's expertise in the early years of the audit is lacking in the client business, which can lead to failure in detecting material errors and misstatements (Ghosh and Moon, 2005). However, as the auditor-client relationship increases, the auditor can rely less on management estimates and become more independent of management because of the special expertise the auditor has acquired from the firm. Carcello and Nagy (2004) find that the longer the auditor tenure, the lower the likelihood of fraudulent financial reporting. Overall, a review of previous research shows that benefits of information and knowledge are created for auditors over time. In other words, there is a hypothesis of a knowledge gap between auditors with a high tenure and those with a low tenure. Therefore, auditor tenure leads to a better understanding of client's business strategy. If the client deviates from the business strategy, it is expected that auditors with high tenure will be able to better evaluate accounting policies and procedures, and thus increase the financial reporting quality. The second hypothesis as follows:

H2. The positive association of auditor tenure on the financial reporting quality increases when companies deviate from their business strategy.

3. Research methodology

All data required to test the research hypotheses were collected directly from audited financial statements on the TSE. After collecting data from the comprehensive database of all listed companies (CODAL [1]), the analysis was performed using Eviews software. The data used in this study were from 2011 to 2020 and 145 companies were selected as the research sample. Thus, fixed effects or random effects methods have been used to estimate panel data models. Statistical tests, such as the F-Limer test and Hausman tests, need to be used in panel data to identify the appropriate technique. In the first step, it is necessary to choose between the least-squares regression (OLS) and panel data methods. Accordingly, the F-Limer test was performed. If the null hypothesis of the F-Limer test is not rejected, the panel data method is accepted. In the second step, it is necessary to use the Hausman test to choose between the fixed effects or random effects methods. If the null hypothesis is rejected, the fixed effects method should be used.

3.1 Sample selection

The sample includes all the companies listed on the TSE from 2011 to 2020. Financial statement data and information related to the auditor characteristics were collected from the annual reports of companies listed on the TSE. The companies' annual reports are available on the comprehensive database of all listed companies (CODAL) website. The following criteria were used to select the research sample: The initial sample include 3,071 firm-year observations. However, to increase the comparability and homogeneity of companies during the research period, companies whose end of the fiscal year was not a solar year were excluded from the research sample. In the next step, we removed from the research sample companies that were delisted from the TSE during the research period or whose information was not available and sufficient. Furthermore, because of the different operations of financial companies, it is necessary to remove them from the research sample. Finally, by applying the stated criteria, the firm-year observations of the company were reduced to 1,450 (including 145 firms). It is also noteworthy that the research sample represents 47% of firms each year and does not indicate any bias regarding missing data and compared to research conducted in Iran, it is a higher percentage (Farhangdoust and Sayadi, 2020; Salehi and Sehat, 2018). Table 1 (available in supplementary material) outlines the sample selection procedure.

3.2 Research models

In order to test and evaluate the research hypotheses, the following multiple regression models have been used. Model (1) is based on Yuan *et al.* (2016) and Sari (2018) research. In other models, auditor tenure has been replaced.

$$FRQ_{it} = \beta_1 + \beta_2 SD_{it} + \beta_3 AIS_{it} + \beta_4 SD_{it} * AIS_{it} + \beta_5 Size_{it} + \beta_6 Roa_{it} + \beta_7 Lev_{it} + \beta_8 Quickratio_{it} + \beta_9 AGE_{it} + \epsilon_{it} \quad (1)$$

$$FRQ_{it} = \beta_1 + \beta_2 SD_{it} + \beta_3 ATE_{it} + \beta_4 SD_{it} * ATE_{it} + \beta_5 Size_{it} + \beta_6 Roa_{it} + \beta_7 Lev_{it} + \beta_8 Quickratio_{it} + \beta_9 AGE_{it} + \epsilon_{it} \quad (2)$$

To test the hypotheses, the coefficients of the interaction variables were examined. If the coefficient of the interaction variable (i.e. $DS_{it} * AIS_{it}$) in the Model (1) is positive and

significant, the first hypothesis of the research is not rejected. The coefficient of the interaction variable in the Model (2) was used to test the second hypothesis. If the interaction variable (i.e. $DS_{it} * ATE_{it}$) is positive and significant, the second hypothesis is not rejected.

3.3 Variables

This section examines the method for measuring research variables. Financial reporting quality is used as the dependent variable and auditor characteristics are used as independent variables. Also, the client strategy variable was used as a moderator variable. Following prior studies, two measures of earnings quality (ADA and CFADA) were considered proxies for financial reporting quality (Yuan *et al.*, 2016; Sari, 2018; Jaggi *et al.*, 2012; Krishnan, 2003; Leuz *et al.*, 2003). Although there are many alternative models for measuring earnings management, popular models include the adjusted Jones model (1995) and cash-flow-adjusted Jones model (2002). In addition, because of their high explanatory power, these models have been used in Iranian economy. The first measure of earnings quality (ADA) was based on the adjusted Jones model (1995). The residuals from the following regression are used as proxies for financial reporting quality. In this research, the adjusted Jones model (1995) is cross-sectional estimated and the absolute value of the residual model is used. Higher residual values represent a lower quality of financial reporting. To ease the interpretation of this variable, the residual model was determined using the negative absolute value.

$$NDA_t = \alpha_1(1/A_{t-1}) + \alpha_2[(\Delta REV_t - \Delta REC_t)/A_{t-1}] + \alpha_3(PPE_t/A_{t-1}) + \varepsilon_t \quad (3)$$

In Model (3), NDA_t is non-discretionary accruals in year t scaled by lagged total assets, ΔREV_t is revenue in year t less revenue in year $t-1$, ΔREC_t is net receivables in year t less net receivables in year $t-1$ and PPE_t is gross property plant and equipment at the end of year t . All variables are scaled by lagged total assets. ε_t is the model residual, which represents the firm-specific discretionary portion of total accruals.

The second measure of earnings quality (CFADA) was based on Dechow and Dichev (2002). McNichols (2002) adds the revenue and gross property plant and equipment variables to Dechow and Dichev (2002) to measure earnings quality. Based on this, cash flow-adjusted Jones model (CFADA) was created. To calculate financial reporting quality, the cash-flow-adjusted Jones model (CFADA) was cross-section fitted and then the absolute value of the residual model was used. Higher residual values represent a lower quality of financial reporting. To simplify the interpretation of this variable, the model residuals was determined by the negative absolute value. The following regression was used.

$$\Delta WC_t = \beta_0 + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4 \Delta REV_t + \beta_5 PPE_t + \varepsilon_t \quad (4)$$

ΔWC_t is the change in working capital in year t , CFO_t is operational cash flows in year t , ΔREV_t is revenue in year t less revenue in year $t-1$ and PPE_t is gross property plant and equipment at the end of year t . In this study, auditor characteristics which include industry specialization and auditor tenure, were used as independent variables. Previous research has used auditor market share in the industry to measure the auditor's expertise (Balsam *et al.*, 2003; DeBoskey and Jiang, 2012; Jaggi *et al.*, 2012; Yuan *et al.*, 2016; Salehi *et al.*, 2020). The auditor's market share uses the client's total assets as the base of the industry. In other words, we use portfolio shares for industries; that is the ratio of the sum of the square root of the total assets of the clients of an auditor in a specific industry to the total sum of the square root of the total assets of all clients in a specific industry. Consistent with Palmrose (1986), we use the market share cut-off ratio (i.e. $[(1/N_{firms}) * 1.2]$). The auditor industry specialist (AIS) is a dummy variable. If the audit firm market share is larger than the market

share cut-off ratio, the number one is assigned to it and zero otherwise. Auditor industry specialist (AIS) is calculated for each year and industry. In previous research, auditor tenure (ATE) has been considered a characteristic of auditors (Ghosh and Moom, 2005; Banimahd *et al.*, 2013; Hohenfels, 2016; Karami *et al.*, 2017; Salehi *et al.*, 2020). Auditor tenure refers to the number of consecutive years the client has chosen the audit firm (Salehi *et al.*, 2020).

In this study, the moderator variable is the client strategy. In previous studies, the strategic deviance variable been used to measure client strategy (Tang *et al.*, 2011; Yuan *et al.*, 2016; Sari, 2018). Deviant strategy (DS) refers to the company's strategy, which deviates from the industry strategy norm. Consistent with previous research, the available resource-allocation model was used to determine a company's strategy (Tang *et al.*, 2011; Yuan *et al.*, 2016; Sari, 2018). Thus, a company's strategy is measured using six indicators (Yuan *et al.*, 2016; Sari, 2018; Geletkanycz and Hambrick, 1997; Mintzberg, 1978; Mintzberg *et al.*, 1998). In their research focuses on (1) advertising intensity (ratio of sales expenses to sales), (2) intensity of R&D expenses (ratio of intangible assets to sales), (3) intensity of capital (ratio of fixed assets to the number of employees), (4) plant and equipment newness (ratio of net plant and equipment to gross plant and equipment), (5) overhead efficiency (administrative expenses to sales), and (6) financial leverage (debt-to-equity ratio). The strategic deviance variable is calculated as follows. First, the mean and standard deviation of each of the above variables were calculated separately for each industry-year. Second, the mean strategy indicator for each industry-year was subtracted from the calculated strategy indicator for each company and then divided by the standard deviation of the strategy indicator for each industry-year and then, the absolute value of the standardized score was calculated. Finally, the average of the six indicators was used to calculate the strategy deviation (SD). A higher strategy deviation (SD) number means that the company's resource allocation pattern has a significant deviation from the industry strategy norms.

Previous research has shown that control variables including firm size (SIZE), return on assets ratio (ROA), financial leverage (LEV), quick ratio (QR), and firm age can affect the quality of financial reporting (Yuan *et al.*, 2016; Sari, 2018; Chi and Chin, 2011; Gul *et al.*, 2009). Firm size (Size) is calculated using the natural logarithm of a company's assets (Gul *et al.*, 2013; Ittonen *et al.*, 2013). The return on assets ratio (ROA) variable can be calculated by dividing net income by assets (Gul *et al.*, 2013; Ittonen *et al.*, 2013; Chi and Chin, 2011). The financial leverage (LEV) variable is obtained by dividing debts by assets (Ittonen *et al.*, 2013; Gul *et al.*, 2013). The quick ratio (QR) variable, which is a measure of a company's liquidity, is calculated by dividing current assets minus inventory by non-current debt (Ittonen *et al.*, 2013). The firm age variable refers to the number of years the company (Chi and Chin, 2011).

4. Results

4.1 Descriptive statistics

Table 2 (available in supplementary material) presents the descriptive statistics of the experimental variables. The mean and standard deviation for the discretionary accruals variable based on the adjusted Jones model (ADA) are 0.109 and 0.118, and for the discretionary accruals variable based on the cash-flow-adjusted Jones model (CFADA) are 0.083 and 0.100, respectively. These results are consistent with those reported by Ghorbani and Salehi (2020). The mean and standard deviation for strategy deviation (SD) variable is 0.468 and 0.439, respectively. Compared to the strategy deviation (i.e. SD = 0.592) in China based on research by Yuan *et al.* (2016), the strategy deviation is less in Iranian companies. The mean and standard deviation of the auditor industry specialists (AIS) are 0.479 and 0.359, respectively. This result shows that approximately 48% of companies have been audited by auditor industry specialist (AIS). The

mean auditor tenure (ATE) is 2.333. This result shows that auditor tenure in the sample companies was approximately two years.

Table 3 (available in supplementary material) reports the Pearson pairwise correlation between research variables. The auditor industry specialist (AIS) has a positive and significant correlation with the variables of financial reporting quality (i.e. ADA and CFADA). Auditor tenure (ATE) has a positive and significant correlation with financial reporting quality variables (i.e. ADA and CFADA). Overall, the results indicate that auditor characteristics have a positive and significant correlation with financial reporting quality.

4.2 Regression results

Before estimating regression models and testing research hypotheses, it is necessary to determine the appropriate regression model to test research hypotheses using F-Limer and Hausman tests. The F-Limer statistic in all research models rejects the null hypothesis (i.e. the pooled data method). Thus, the results of the F-Limer test in Table 4 (available in supplementary material) indicate that in all research models the panel data method is suitable for estimating the regression. In all research models, Hausman statistic rejects the null hypothesis (i.e. random effects panel data method). Thus, a suitable model for estimating research models is the fixed effects method.

In this study, the Wooldridge test was used to examine serial autocorrelation among the error terms and the likelihood ratio test (LRT) test was used to examine heteroscedasticity. Table 5 (available in supplementary material) reports the test results. The results of the heteroscedasticity test indicate that heteroscedasticity is present in all research models. Thus, generalized least squares method (GLS) was used to solve the problem of heteroscedasticity. The results of the Wooldridge test show that there is autocorrelation in all research models. Thus, by adding the first-order autoregressive (AR (1)) variable to the research models, the autocorrelation problem can be solved.

Table 6 (available in supplementary material) presents results of regression estimation of the first hypothesis. In the first hypothesis of the research, it was mentioned that the positive association between auditor industry specialization and financial reporting quality will be more pronounced for clients with deviant strategies. For both ADA and CFADA dependent variables, the coefficient of the interaction of auditor industry specialization and strategy deviation is positive and significant (i.e. $SD * AIS = 0.017$ and 0.006 ; p -value $< 5\%$ and $< 5\%$). Thus, the first hypothesis of this study was not rejected. This result is consistent with [Yuan et al. \(2016\)](#), and [Mashaykhi et al. \(2018\)](#) and is consistent with the knowledge gap hypothesis. The results of previous empirical research also confirm that auditor knowledge of the industry affects the quality of financial reporting ([Minutti-Meza, 2013](#)). In addition, in both models, auditor industry specialization has a positive association with the quality of financial reporting ($AIS = 0.022$ and 0.008 ; p -values $< 5\%$ and $< 5\%$, respectively). This result is similar to previous research such as [Yuan et al. \(2016\)](#). The adjusted R -squared, which indicates the explanatory power of the regression model for the dependent variables ADA and CFADA is 68 and 62% respectively. At the 95% confidence level, F -statistic was significant for both the models, indicating that the regression model is reliable.

Table 7 (available in supplementary material) presents the results of the interaction association between auditor tenure and deviation of the business strategy with financial reporting quality. The estimated coefficient and t -statistics for the two dependent variables of ADA and CFADA at the 95% confidence level for the interaction variable of strategy deviation and audit tenure ($SD * ATE = 0.008$ and 0.009 ; p -values $< 5\%$ and $< 5\%$, respectively) are positive and significant. These results indicate that the relationship between auditor tenure and financial reporting quality enhanced for companies that deviate from their

business strategy. This result supports the second hypothesis. This result is consistent with those of [Cameran et al. \(2015\)](#), and [Patterson et al. \(2019\)](#) and also, is consistent with the knowledge gap hypothesis. As shown in Table 7, *F*-statistics indicate that the fitted regression models are significant. In addition, the adjusted coefficient of determination shows that in the first and second models, 50 and 56% of the changes in the dependent variable respectively, are explained.

4.3 Additional analysis for client business strategy

In order to ensure the robustness of the research findings, Table 8 (available in supplementary material) presents the results of estimating the models using the generalized method of moments (GMM) technique. In the GMM technique, the heterogeneity of variance and autocorrelation can be considered simultaneously. The Arellano-Bond test was used to detect autocorrelation. The Sargan test for over-identifying restrictions and Wald test for the significance of the estimated model was used. Overall, the results show that a client's business strategy has a positive association with the relationship between the auditor's characteristics and the quality of financial reporting.

5. Conclusion

The users of accounting information can use quality accounting information to make economic decisions. Thus, the Accounting Standards Board (FASB and IASB) has created the quality of financial reporting by normative accounting standards, and companies are required to implement accounting standards. The auditor validates financial reporting quality. Numerous factors, such as a firm's strategy deviation, can affect this relationship. Therefore, the purpose of this study is to investigate the association strategy deviation with the relationship between auditor characteristics and financial reporting quality in companies listed on the TSE from 2011 to 2020. In the first hypothesis, it was suggested that deviation from the company's business strategy can improve the positive association of auditor industry specialization and financial reporting quality. According to the research hypothesis, the results showed that auditor industry specialization has a positive association with financial reporting quality, and this relationship is strengthened by deviation from the firm's business strategy. The results of testing the second hypothesis indicate that the positive relationship between auditor tenure and financial reporting quality is greater in companies that deviate from the strategy. In summary, the results indicate that auditor characteristics affect the financial reporting quality in the Iranian capital market and that this relationship can be improved through the client's business strategy.

The present study is important because it is the first research that has been conducted in the emerging market to examine the role of moderating the client characteristics (e.g. client strategy) on the relationship between auditor characteristics (including auditor industry specialization and auditor tenure) with financial reporting quality. The results of this study contribute to the growing literature of auditor characteristics and financial reporting quality. Previous research has only examined the role of auditor industry specialization. Also, the results of the present study show that the characteristics of the client (such as business strategy) can affect the relationship between the characteristics of the auditor and financial reporting quality. The experimental evidence of this study has implications for policymakers, managers, and investors. Auditor characteristics have a positive relationship with the quality of financial reporting, helping policymakers and regulators of capital markets and auditing to improve the quality of financial reporting by setting accounting and auditing standards for client characteristics. For example, in Iranian Auditing Standard (IAS) 315, the auditor is

required to have sufficient knowledge of the firm's business strategy. Considering competition among Iranian audit firms, managers and partners of audit firms can form specialized teams to increase the quality of financial reporting. Investors concerned about the quality of financial reporting are advised to consider the auditor's characteristics when making a decision. Managers of companies listed on the TSE should consider the relationship of the auditor's characteristics to increase the quality of financial reporting when selecting an auditor. In this study, the available resource allocation model was used to measure a company's strategy, which is based on 6 indicators (Mintzberg, 1978; Mintzberg et al., 1998). However, there are other ways to calculate a company's strategy. This study is subject to this limitation. Future research should consider the impact of other audit features, such as auditor fees and auditor size.

Note

1. www.codal.ir

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Supplementary material

The supplementary material for this article can be found online.

Corresponding author

Afsaneh Soroushyar can be contacted at: a_soroushyar@yahoo.com