



Are CEO experience and financial expertise associated with financial restatements?

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ABSTRACT

This study examines whether and how Chief Executive Officer (CEO) experience and financial expertise affect financial restatements (FR) by investigating a sample of Iranian listed companies from 2008 to 2017. We define experienced CEOs as those who are hired from inside the firm and financial expert CEOs as those who hold an accounting qualification or have work experience as an auditor, chief financial officer (CFO), controller, and/or other accounting-related positions. We find that FR is positively associated with insider CEOs (CEOs with more internal experience), and negatively associated with CEO financial expertise. Moreover, we find that CEO experience is negatively associated with FR when the CEO is a financial expert. This result highlights the importance of financial background for senior executives. Further, our results show that insider CEOs can improve the financial reporting quality through reducing FR when they have higher decision-making power. This study contributes to the literature on CEO characteristics and financial reporting. The results provide important implications for policymakers and the board of directors in emerging economies regarding the requirement to appoint top managers with financial expertise.

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¿Existe asociación entre la experiencia del director general y los conocimientos financieros con las reformulaciones financieras?

RESUMEN

Este estudio examina si la experiencia del director general (CEO) y los conocimientos financieros afectan a las reformulaciones financieras (FR), y cómo lo hacen, investigando una muestra de empresas iraníes que cotizan en bolsa entre 2008 y 2017. Definimos a los consejeros delegados con experiencia como aquellos que son contratados desde dentro de la empresa y a los consejeros delegados expertos en finanzas como aquellos que poseen una cualificación contable o tienen experiencia laboral como auditor, director financiero (CFO), controlador u otros puestos relacionados con la contabilidad. Encontramos que FR está positivamente asociado a los CEOs con información privilegiada (CEOs con más experiencia interna), y negativamente asociado a la experiencia financiera del CEO. Además, encontramos que la experiencia del CEO se asocia negativamente con FR cuando el CEO es un experto financiero. Este resultado pone de manifiesto la importancia de la experiencia financiera de los altos ejecutivos. Además, nuestros resultados muestran que los directores generales con información privilegiada pueden mejorar la calidad de la información financiera reduciendo FR cuando tienen mayor poder de decisión. Este estudio contribuye a la literatura sobre las características de los directores generales y la información financiera. Los resultados ofrecen importantes implicaciones para los responsables políticos y los consejos de administración de las economías emergentes en lo que respecta a la exigencia de nombrar a altos directivos con conocimientos financieros.

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1. Introduction

Restatement signifies that previously published financial statements are not correct or reliable (Wilson, 2008). Prior research suggests that financial restatement (FR) could be a sign of weakness in the accounting and financial reporting system, ineffectiveness of the internal controls, or a result of management efforts to manipulate the earnings through accounting methods (Akhigbe, Kudla & Madura, 2005; Agrawal & Chandha, 2005; Plumlee & Yohn, 2010). Drawing primarily upon the upper echelons theory, prior research suggests that managerial background characteristics are the underlying determinants of top managers' decision-making, financial reporting processes, and organizational outcomes in general (Hambrick & Mason, 1984; Hambrick, 2007; Bamber, John & Wang, 2010; Jiang, Zhu & Huang, 2013; Baatwah, Salleh & Ahmad, 2015; Custodio & Metzger, 2014; Gounopoulos & Pham, 2018; Brockman, Campbell, Lee & Salas, 2019). More specifically, it has been argued that hiring CEOs with more internal experience results in greater future performance (Brockman et al. 2019). In the same vein, the literature shows that financial expertise enhances CEO ability, which, in turn, leads to an improvement in corporate performance (Custodio & Metzger, 2014). However, empirical evidence concerning the effect of CEO experience and financial expertise on the FR is sparse, particularly in emerging economies. Therefore, we focus on the two characteristics of the CEO (experience and financial expertise), and examine their effects on the incidence of FR.

The Iran context is well-suited to this paper for two main reasons. First, Iran, as one of the growing economies, has often been criticized for weak corporate governance mechanisms and weak demand for high-quality audit services (Bagherpour, Monroe & Shailer, 2014; Mashayekhi & Bazaz, 2008), which could lead to increased financial reporting weaknesses and audit failure that may result in FR (Akhigbe et al., 2005; Czerney, Schmidt & Thompson, 2014). Second, recent studies in Iran (e.g., Oradi & Izadi, 2019) indicate that a high percentage of companies restate their financial statements in order to correct accounting mistakes. Thus, whether and how the CEO characteristics affect FR in Iran is an important question that could have implications for other emerging economies and markets.

We hand-collect information concerning CEO characteristics that is relevant to experience and financial expertise and examine its link to the incidence of FR. Following the prior literature on CEO succession (e.g., Brockman et al., 2019), we consider insider CEOs using an indicator variable equal to one if the CEO is hired from inside the firm, and zero otherwise. Furthermore, consistent with prior research, we define financial expert CEOs as those who hold an accounting qualification, or have work experience as an auditor, CFO, controller, and/or other accounting-related position (e.g., Custodio & Metzger, 2014; Baatwah et al., 2015; Kalelkar & Khan, 2016).

After controlling for other FR-related factors, our logistic regression results show that FR is positively associated with insider CEOs (CEOs with more internal experience), and negatively associated with CEO financial expertise. Moreover, we find that CEO experience is negatively associated with FR when the CEO is a financial expert. Further, our results show that insider CEOs can improve the financial reporting quality through reducing FR, when they have higher decision-making power.

This study contributes to the literature in several ways.

First, we expand the literature on CEO characteristics and financial restatements. Prior research examines the relationship between CEO characteristics, such as CEO overconfidence (Presley & Abbott, 2013) and CEO age (Huang et al., 2012), and FR, whereas this study is the first to provide evidence regarding the effect of CEO experience and financial expertise on the incidence of FR in an emerging market. Second, this study adds to the literature on the manager fixed effects, similar to the studies of Bamber et al. (2010) on voluntary disclosures, and that of Demerjian, Lev & Lewis (2013) on financial reporting quality. Third, we address the importance of CEO characteristics, and, specifically, CEO financial expertise in the corporate governance structure that is considered relevant in prior restatement research (e.g., Abbott et al., 2004; Carcello et al., 2011; Abbott et al., 2012; Habib & Hossain, 2013). Fourth, we contribute to studies that examine the determinants and consequences of FR including financial reporting quality (Palmrose & Scholz, 2004), the reduced firm value (Palmrose & Scholz, 2004), higher cost of capital (Bardos & Mishra, 2014), negative stock price reaction (Wilson, 2008; Chen et al., 2014), higher litigation risk (Palmrose & Scholz, 2004; Bardos & Mishra, 2014), and an increase in CEO/CFO turnover (Hennes et al., 2008).

Finally, this study provides policy and practical implications by suggesting that regulators, standard-setters, and the board of directors in emerging economies pay attention to the importance of financial expertise in establishing corporate governance measures and financial standards for appointing CEOs. Our results provide insights into (1) hiring financial expert CEOs that could build up the trust of accounting information users, particularly in the emerging markets; and (2) the decision of whether to replace a CEO by an insider or outsider in light of not only firm performance measures but also the contribution to the financial reporting quality of the firm.

The remainder of the paper is structured as follows. The second section presents the related literature and develops the research hypotheses. The third section provides a discussion of the sample and research design. The fourth section presents the findings of the descriptive analysis, univariate analysis, and multivariate analysis, as well as the results from several supplementary analyses. The final section summarizes the concluding remarks and discusses possible implications.

2. Related literature and hypothesis development

2.1. Related literature

Restatements signify the low quality of financial reporting and misstatements of prior financial reports (General Accounting Office, 2002). Audited financial statements are often restated when the following four conditions are met: (a) existence of material misstatements in the published financial statements (e.g., aggressive accounting practices of the management, misapplication of the accounting principles and practices); (b) misstatements are not detected and prevented by the internal controls; (c) the external auditor failed to detect the misstatements and financial statements are issued; and (d) the misstatements are detected after financial statements were published, and, if they are significant, companies will be required to correct, restate, and reissue financial statements (Eilifsen & Messier, 2000). According to previous studies, the determinants of FR can be classified in five groups: (a) environmental structure and firm character-

istics, such as firm size, profitability, age, financial distress, and internal control weaknesses (e.g., [Beasley, 1996](#); [Abbott et al., 2004](#); [Almer et al., 2008](#); [Plumlee & Yohn, 2010](#)); (b) managerial characteristics and corporate governance structure, such as independent boards of directors, absence or deficiency of the audit committee, CEO duality, and the expertise of financial managers and employees (e.g., [Beasley, 1996](#); [Abbott et al., 2004](#); [Aier, Comprix, Gunlock & Lee, 2005](#)); (c) ownership structure (e.g., [DeFond & Jiambalvo, 1991](#); [GAO, 2002](#); [Jiang, Habib & Zhou, 2015](#)); (d) accounting standards, such as the increase in complexity of standards and rules of accounting and reporting (e.g., [GAO, 2002](#); [Plumlee & Yohn, 2010](#)); and (e) the audit quality of financial statements (e.g., [Chin & Chi, 2009](#)). In the present study, we focus on the factors related to the second group regarding the top managers' characteristics and review the association between the experience and financial expertise of the CEO and the incidence of FR.

A general viewpoint in prior corporate governance and accounting research is that CEOs may use resources for their own interests and disregard investors' interests (e.g., [Jensen & Meckling, 1976](#); [Beasley, 1996](#); [Klein, 2002](#)), and may misstate financial reports to achieve their own interests ([Ali & Zhang, 2015](#)). In addition, prior research suggests that FR is an indicator of earnings management practices ([Agrawal & Chandha, 2005](#)). The stakeholder theory, which is a synthesis of organizational and social theories, highlights the importance of the management leadership role in strategic decision-making ([Hambrick & Mason, 1984](#)). According to the upper echelons theory, strategic choices of CEOs, who hold the most powerful position of an organization, are based on their background and functional experiences ([Crossland & Hambrick, 2007](#)). On the grounds that CEO ideals form their managers' leadership practices, a firm's tendency to meet stakeholder demands is highly likely to be affected by the main decision-makers' beliefs and value systems ([Huang, 2013](#)). Accordingly, it could be expected that CEOs significantly affect firm issues, such as financial reporting, because improving the financial reporting quality engenders investors' trust and increases the number of investors in the company, thereby enhancing firm value.

Consistent with this, prior research shows that CEO characteristics could affect organizations' outcomes and financial reporting (e.g., [Francis et al., 2008](#); [Bamber et al., 2010](#)). Specifically, [Bamber et al. \(2010\)](#) claim that CEO characteristics can be used to predict the effect of a CEO on financial reporting, because these characteristics play a major role in forming CEO behavior. Collectively, recent literature on the financial reporting quality points to the significance of CEO demographic characteristics in preventing accounting mistakes, and, thus, safeguarding shareholders' interests ([Baatwah et al., 2015](#)).

As discussed earlier, the literature on the effects of top management backgrounds on accounting choices is mainly based on the upper echelons theory, which assumes that managerial characteristics (e.g., experience and financial expertise) may influence corporate performance and financial reporting processes ([Hambrick & Mason, 1984](#); [Hambrick, 2007](#); [Gounopoulos & Pham, 2018](#); [Campbell et al., 2019](#)). Other studies suggest that CEO characteristics affect FR. For example, [Zhang et al. \(2018\)](#) find that tournament incentives reduce the incidence of FR and the negative association between tournament incentives, and that FR is related to CEO turnover and is stronger if the successor CEO is recruited from within the firm. [Presley & Abbott \(2013\)](#) find that overconfident CEOs report more aggressively and increases the

likelihood of the incidence of FR. Other factors shown to be related to FR include CEO duality (e.g., [Abbott et al., 2012](#)) and CEO age ([Huang et al., 2012](#)). Overall, this stream of literature suggests that CEO characteristics affect FR. Nonetheless, two CEO characteristics that are still unexplored in the context of FR are how CEO experience and financial expertise affects financial restatements, which are addressed in this study.

2.2. Hypothesis development

Management is primarily responsible for fair and true presentation of financial reports in conformity with a set of globally accepted accounting standards. Thus, both CEOs and CFOs play an important role in assuring high-quality financial reports. CEO succession, as one of the most important challenging roles of the board, is a process in which the board of directors arranges to transfer management to the CEO successor. [Kotter \(1982\)](#) states that CEOs who are internally recruited, compared to outsider CEOs, have a broader knowledge of products, employees, suppliers, and corporate culture and environment. Moreover, CEOs who spent more time in the firm before being appointed as a CEO develop a better relationship with subordinate main managers, and, thus, can receive more honest feedback when they are faced with internal problems ([Brockman et al., 2019](#)). Moreover, from the perspective of the stewardship theory, executives hired from within consider themselves as a component of the firm and tend to fulfill the responsibilities that are attributed to them by corporate owners ([Ahamed & Tripathi, 2018](#)). Furthermore, the previous experience of managers can reflect their psychological tendency and abilities, such as values, recognitions, skills, and knowledge ([Hambrick & Mason, 1984](#)). This shows that insider CEOs with past experience have wider knowledge of the internal control structure and are able to mitigate the risk of likely mistakes by overcoming internal control weaknesses.

On the other hand, outsider CEOs have proven to be versatile, which helps them perform better in their managerial functions in the modern business environment ([Kaplan & Minton, 2012](#)). Top managers, with longer tenure due to the social processes in the organization, are more likely to take narrow views, display psychological commitment to the status quo ([Hambrick, Geletkanycz & Fredrickson, 1993](#)), and reduce the quantity and quality of information processing ([Tushman & Romanelli, 1985](#)). In addition, executives with longer organizational tenure, due to their psychological commitment to the status quo and certain social relationships in the company, are not inclined to make the required changes in their organizations ([Wiersema & Bantel, 1993](#)), which could affect firm performance and financial reporting. Moreover, the resource dependence ([Pfeffer & Salancik, 1978](#)) and upper echelons ([Hambrick & Mason, 1984](#)) theories lay great emphasis on the advantages of recruiting CEOs from outside the firm and industry. The theoretical and adaptive perspective of resource dependence supports the external succession of top management as a solution for organizational problems, such as weak performance ([Datta & Guthrie, 1994](#)). Prior research further demonstrates that the increase in CEO experience arising from longer tenure in the firm, is associated with the increase in internal control weaknesses ([Lin, Wang, Chiou, & Huang, 2014](#)) and that this could enhance the likelihood of financial restatements ([Plumlee & Yohn, 2010](#)).

[Brockman et al. \(2019\)](#) found that insider CEOs are more likely to provide a more thorough management fore-

cast. Brockman, Krishnan, Lee & Salas (2019) suggest that the CEO in-house experience plays an important role in mitigating audit risk in firms with poor corporate governance quality. Oradi, Asiaei & Rezaee (2020) show that the effect of CEO financial expertise on the effectiveness of internal controls is stronger if the CEO is recruited from inside the firm. In particular, Karaevli (2007), by reviewing 50 empirical studies on the consequences of executive succession, stated that the findings about post-succession performance are mixed and that the question of whether executive succession (insider vs. outsider CEOs) improves or weakens the corporate performance remains unanswered. According to a meta-analysis conducted by Schepker, Kim, Patel, Thatcher & Champion (2017), inside CEOs may improve long-term performance and engage in less strategic change, while hiring an outside CEO leads to more strategic change that results in lower long-term performance.

Brockman et al. (2019) suggest that hiring CEOs from within leads to greater future performance, due to the fact that insider CEOs are better aware of corporate activities, such as products, production chain, operations, business situation, and firm culture. Thus, it is expected that insider CEOs are associated with the improvement of corporate performance and financial reporting quality. On the other hand, Zhang (2009) contends that top managers who have greater knowledge and longer tenure may display an extreme commitment to their experience of running their company and take a conservative attitude to changes that can finally worsen the corporate performance. Based on some studies, outsider CEOs have proven to be versatile, which helps them perform better in their managerial functions in the modern business environment (Kaplan & Minton 2012). However, Jongjaroenkamol & Laux (2017) indicated that in the cases of firms with outsider CEOs, mistakes and poor performance of management are of grave concern. Overall, according to the foregoing theoretical tensions, insider CEOs may be negatively or positively associated with corporate performance and financial reporting quality. Based on this discussion, the hypothesis is as follows (in alternative form):

H1: *There is an association between CEO experience (insider vs. outsider CEOs) and the incidence of financial restatement.*

In recent years, firms display a greater tendency to hire financial expert CEOs (e.g., Cullinan & Roush, 2011; Jiang et al., 2013). Kalelkar & Khan (2016) consider the recent accounting scandals and increased concentration on the financial reporting in the post-SOX 2002 as being among the reasons for the accelerating trend towards the recruitment of financial expert CEOs. The SOX Act mandates tough conditions for implementing the stewardship role of the board of directors and executives to improve the quality of financial information disclosure as well as auditors to pay special attention to financial restatements for the ultimate purpose of rebuilding public trust and investor confidence in the financial and audit processes (Rezaee & Fogarty, 2019). The financial expertise can increase CEO performance, especially their role in financial reporting and internal controls (Salehi, Lari & Naemi, 2018). CEOs with financial expert mitigate corporate weak performance risk and failure risk (Custodio & Metzger, 2014). Financial expert CEOs also show a more conservative way of performing (Matsunaga, Wang & Yeung, 2013). Furthermore, financial expert CEOs are more likely to perceive to what extent financial disclosure could help reduce information asymmetry between firms and investors, and facilitate

the assessment of firm value for the market participants (Matsunaga & Yeung, 2008).

Recently, Oradi et al. (2020) find that there is a significant negative association between CEOs with financial expertise and internal control weaknesses. Ettredge, Li, Wang & Yang (2018) find that financial expert executives reduce the information asymmetry in the initial public offering. Kalelkar & Khan (2016) report that the financial expertise of CEO lowers audit fees. Baatwah et al. (2015) show that the financial expertise of CEOs reduces the audit report lag. This implies that financial expertise enhances CEO ability to reduce material mistakes and mitigates audit risk. Furthermore, Aier et al. (2005) show that companies have higher earnings quality if their CEOs have had more years of work experience as CFOs. In addition, previous studies showed that financial expert CEOs, compared to their peers who lack financial expertise, have high disclosure quality (Matsunaga & Yeung, 2008) and are less likely to engage in earnings manipulation (Jiang et al., 2013; Gounopoulos & Pham, 2018). In summary, prior research suggests that the financial expertise of CEOs reduces firm failure and increases profitability (Custodio & Metzger, 2014), improves financial reporting quality (Jiang et al., 2013; Gounopoulos & Pham, 2018), reduces internal control weaknesses (Oradi et al., 2020), and mitigates the audit risk (Baatwah et al., 2015; Kalelkar & Khan, 2016). In light of this literature, we predict that financial expert CEOs reduce the likelihood of the incidence of FR. Thus, our second hypothesis is as follows (in alternative form):

H2: *There is an association between CEO with financial expertise and the incidence of financial restatement.*

3. Research design

3.1. Data and sample

The sample consists of all firms listed on the TSE from 2008 to 2017. We collect financial statement data from the annual reports of the companies listed on the Tehran Stock Exchange and Rahavard-e-Novin database¹. The annual reports of the companies in the TSE are available at the Research, Development and Islamic Studies Center² and CODAL³. The initial sample includes 3250 firm-year observations. However, when financial firms are excluded due to the different nature of the operations of such firms, the final sample decreases to 1580 firm-year observations for test H1 and 1371 firm-year observations for test H2. Furthermore, it excludes delisted firms and observations without the necessary data to compute the variables. Table 1 outlines the sample selection procedure.

¹The Rahavard-e-Novin database is the most comprehensive database in the Iranian capital market. The full version of this database contains financial reports and the information on capital market. It further provides various options for essential technical analysis (Hesarzadeh & Bazrafshan, 2018).

²www.RDIS.ir/CompaniesReports.asp

³www.Codal.ir

Table 1
Sample selection

Panel A		Total Sample	
All firms listed on the Tehran Stock Exchange from 2008 to 2017		3250	
Less: firm-year observations in financial services industries		(580)	
Less: delisted firms		(211)	
Less: observations with missing values on financial information or other control variables used in the present study		(413)	
Subtotal: number of observations with available data		2064	
Less: observations with no CEO experience data		(466)	
Observations in final analysis for test H1		1580	
Less: observations with no CEO financial expertise data		(595)	
Observations in final analysis for test H2		1371	
Panel B			
Year	N Restatement	N Insider CEO	N Financial expert CEO
2008	104	41	25
2009	111	43	29
2010	105	47	33
2011	102	54	38
2012	102	53	41
2013	116	60	44
2014	103	62	36
2015	108	63	39
2016	98	65	37
2017	92	63	44
Total	1041	551	366

3.2. Model specification

We estimate the following logistic regression models. Model (1) tests the effect of CEO experience on the incidence of FR (H1) and Model (2) examines the effect of CEOs with financial expertise on the incidence of FR (H2).

$$\begin{aligned}
 Restate_{it} = & \beta_0 + \beta_1 CEOExper_{it} + \beta_2 CEOtenure_{it} + \beta_3 CEOchair_{it} \\
 & + \beta_4 CEOown_{it} + \beta_5 B-Size_{it} + \beta_6 B-Ind_{it} \\
 & + \beta_7 Conown_{it} + \beta_8 Instown_{it} + \beta_9 Famown_{it} \\
 & + \beta_{10} Audittype_{it} + \beta_{11} Audittenu_{it} + \beta_{12} Weak_{it} \\
 & + \beta_{13} Zscore_{it} + \beta_{14} FAge_{it} + \beta_{15} Lev_{it} + \beta_{16} Finance_{it} \\
 & + \beta_{17} Size_{it} + \beta_{18} Recinv_{it} + \beta_{19} Growth_{it} + \beta_{20} Twoloss_{it} \\
 & + \beta_{21} Accrual_{it} + Industry Fixed Effect \\
 & + Year Fixed Effect + \varepsilon_{it}
 \end{aligned} \quad (1)$$

$$\begin{aligned}
 Restate_{it} = & \beta_0 + \beta_1 CEOExp_{it} + \beta_2 CEOtenure_{it} + \beta_3 CEOchair_{it} \\
 & + \beta_4 CEOown_{it} + \beta_5 B-Size_{it} + \beta_6 B-Ind_{it} \\
 & + \beta_7 Conown_{it} + \beta_8 Instown_{it} + \beta_9 Famown_{it} \\
 & + \beta_{10} Audittype_{it} + \beta_{11} Audittenu_{it} + \beta_{12} Weak_{it} \\
 & + \beta_{13} Zscore_{it} + \beta_{14} FAge_{it} + \beta_{15} Lev_{it} + \beta_{16} Finance_{it} \\
 & + \beta_{17} Size_{it} + \beta_{18} Recinv_{it} + \beta_{19} Growth_{it} + \beta_{20} Twoloss_{it} \\
 & + \beta_{21} Accrual_{it} + Industry Fixed Effect \\
 & + Year Fixed Effect + \varepsilon_{it}
 \end{aligned} \quad (2)$$

Where *Restate* is an indicator variable that equals 1 if the company restated its financial statements and 0 otherwise. Our variables of primary interest are *CEOExper* and *CEOExp*. *CEOExper* is an indicator variable that equals one if the CEO is hired from inside the firm and 0 otherwise. *CEOExp* is an indicator variable that equals 1 if the CEO is qualified for financial expertise and 0 otherwise.

We include several control variables in the regression models. We control for CEO characteristics – CEO tenure (*CEOtenure*), CEO duality (*CEOchair*), and CEO ownership (*CEOown*)

– in our analysis, because these characteristics can affect firm performance and the financial reporting process. Prior studies suggest that *CEOtenure* is negatively associated with firm performance (e.g., Bizjak et al., 2009; Veprauskaite & Adams, 2013) and internal control quality (Lin et al., 2014). Moreover, CEO duality (*CEOchair*) reduces the effectiveness of the board's monitoring function and eliminates an additional monitoring mechanism (Beasley, 1996; Dechow et al., 1995). Abbott et al. (2012) find that there is a positive relationship between *CEOchair* and FR. In addition, top managers with higher shareholdings have stronger control over the firm, and, hence, more ability to pursue their own private interests (Lin et al., 2014). Lin et al. (2014) show that the CEO ownership (*CEOown*) decreases internal control quality and increases the financial reporting weakness. We expect a positive relationship between these variables and FR.

Consistent with Beasley (1996), we expect a positive relationship between *B-Size* and FR. Beasley (1996) also posits that independent directors have reputational capital incentives to minimize the incidence of FR. Thus, we expect a negative association between *B-Ind* and FR.⁴ In addition, differences in the structure of ownership could impact on the FR (e.g., DeFond & Jiambalvo, 1991; GAO; 2002). DeFond & Jiambalvo (1991) posit that an increased ownership concentration (*Conown*) reduces the incidence of FR. Further, Abbott et al. (2004) report that there is a negative relation between block shareholder ownership (*Instown*) and FR, because of the increased monitoring function by these types of shareholders (Jiang et al., 2015). We expect a negative association between *Conown* and *Instown* with FR. Moreover, Wang (2006) shows that there is a negative relationship between family ownership and earnings management, which subsequently reduces the possibility of misstatements and FR. Thus, we expect a negative relation between family ownership (*Famown*) and FR.

Chin & Chi (2009) argue that with the enhancement of audit quality, the likelihood of restatement decreases. Therefore, we controlled for auditor type⁵ (*Audittype*) and audit tenure (*Audittenu*) variables as they are proxies for audit quality (Lai & Liu, 2018). We predict a negative association between *Audittype* and *Audittenu* with FR. Further, we include the variable of the internal control weakness (*Weak*) as one of the determining factors in FR (Plumlee & Yohn, 2010), and predict a positive association between *Weak* and FR.

Furthermore, financial distress increases the likelihood of opportunistic reporting of the management, and, thus, leads to FR (Jiang et al., 2015). Moreover, firm age is associated with reporting problems; presumably as the firm age increases, the likelihood of FR decreases, owing to the fact that young firms face the problems that lead to more FR (Beasley, 1996). Hence, financial distress (*Zscore*) and firm age (*FAge*) are included in the equation. We predict a negative association between *Zscore* and *FAge* with FR. Zhang et al. (2018) find that firms with higher leverage are more likely to restate financial statements. Therefore, we expect a positive association between *Lev* and FR. Further, Presley & Abbott (2013) show that with an increase in external financing (*Finance*), the likelihood of FR decreases. We predict a negative association between *Finance* and FR. We also include firm size

⁴In this study, the important role of the audit committee on the financial restatement is uncontrolled, because the formation of an audit committee is newly (since 2013) enforced for listed firms.

⁵The international big audit firms (BIG4) did not set up their activities in Iran (see Bagherpour et al., 2014b). The Audit Organization of Iran is a government entity that is as acknowledged to be the largest audit firm in Iran. Therefore, we classify audit firms into two groups – big (audit organization) and small (the other audit firms) (Hesarzadeh & Bazrafshan, 2018).

(Size), because Ji et al. (2017) find that large firms have less incentive for earnings management, which is associated with a reduced likelihood of FR (Zhang et al., 2018). We expect a negative association between Size and FR.

In addition, we include firm complexity (Recinv) since firm complexity increases the likelihood of audit failure, which, in turn, leads to an increase in the incidence of FR (DeFond & Zhang, 2014). Thus, we expect a positive relation between Recinv and FR. Moreover, the desire to maintain a firm's rate of growth can create an incentive to manipulate earnings (Beasley, 1996). Abbott et al. (2004) found that there is a positive relation between Growth and FR. We predict a positive association between Growth and FR. Previous studies have shown that weak financial performance provides an incentive to misstate earnings (Scholz, 2008). To control for this, we include consecutive losses (Twoloss). We expect a positive association between Twoloss and FR. Finally, we include the total accruals to sales (Accrual) that could affect the restatement (Zhang et al., 2018). The changes in accruals increase the likelihood of earning manipulation (Schipper & Vincent, 2003). We expect a positive association between Accrual and FR. We also include industry and year dummy variables in all our regression specifications. Table 2 provides a summary of the variable definitions.

Table 2
Variable definition

Variable name	Definitions
Restate	An indicator variable which equals 1 if the company restated its financial statements and 0 otherwise.
CEOExper	An indicator variable which equals one if CEO is hired from inside the firm and 0 otherwise.
CEOFexp	An indicator variable which equals 1 if CEO is qualified for financial expertise and 0 otherwise. Defined CEO as a financial expert if who hold accounting qualification, or have work experience as auditor, CFO, controller and or other accounting related positions.
CEOtenure	The number of years working as a CEO in the firm.
CEOchair	An indicator variable which equals 1 if the CEO is also the chairman (or vice chairman) of the board, 0 otherwise.
CEOown	The percentage of shares owned by the CEO.
B-Size	The number of directors on the board.
B-Ind	The percentage of independent directors on the board of directors.
Conown	The percentage of a firm's outstanding shares that are owned by the largest shareholder ($\geq 5\%$).
Instown	The percentage of shares held by institutional investors
Famown	An indicator variable which equals 1 if the firm is classified as a family firm, 0 otherwise.
Auditttype	An indicator variable which equals 1 if the auditor is a big audit firm and 0 otherwise.
Audit tenure	The number of years that an auditor has been retained by the firm.
Weak	An indicator variable which equals 1 if there is a material weakness in internal control, 0 otherwise.
Zscore	Financial distress calculated using a modified Altman's proposed by MacKie-Mason (1990). The higher Zscore show that lower the chance of financial distress. The MacKie-Mason (1990) model is as follows: $Z = 3.3 (\text{EBIT}/\text{TA}) + 1 (\text{Sales}/\text{TA}) + 1.4 (\text{Retained Earnings}/\text{TA}) + 1.2 (\text{Working Capital}/\text{TA})$.
FAge	The natural logarithm of the number of years since the company was established.
Lev	The ratio of total debt to total assets.
Finance	Operating cash flows minus average capital expenditures (it-3 to it-1), divided by lagged current assets.
Size	The natural logarithm of total assets.
Recinv	The ratio of receivables and inventories to total assets.
Growth	The percentage of change in annual sales revenue.
Twoloss	An indicator variable which equals 1 if a client reports loss for two consecutive years.
Accrual	Net income minus operating cash flows and divided by lagged assets.

4. Empirical results

4.1. Descriptive statistics and correlations

The descriptive statistics of the research variables are shown in Panels A and B of Table 3. Panel A presents the descriptive statistics of all the variables. All continuous variables are winsorized at the top and bottom 1% of their distributions. Panel A of Table 3 shows that the mean of Restate is 68%, which is notably higher than the mean of restatements in other countries, such as the USA (9%; Blankley et al., 2012) and China (16%; Zhang et al., 2018). In addition, Panel A of Table 2 reveals that 35% companies in the research sample used insider CEOs (CEOExper). This is considerably different from the mean insider CEOs of 69% for firms in the S&P 1500 (Brockman et al., 2019). Firms in the S&P 1500 are large; they are also likely to be more complex, in which CEO in-house experience is likely to be more important (Brockman et al., 2019). Moreover, Panel A of Table 3 indicates that 27% of CEOs in the research sample have financial expertise. This is consistent with the mean CEOFexp of 28% obtained for the Iranian listed firms at the international level (Salehi et al., 2018). In contrast, this percentage is different from that of Custodio & Metzger (2014) in S&P 1500 firms (41%).

The average CEO duality (CEOchair) is 21%, which is notably lower than the mean of CEO duality in other countries, such as the USA (45%; Gounopoulos & Pham, 2018). The mean CEO tenure is 3.6 years and the average CEO ownership is 16%, which differs from the research carried out by Gounopoulos & Pham (2018) in US. listed firms (4.98; 11% respectively). The average ownership concentration is 77%, which demonstrates a high level of ownership concentration in Iranian listed companies (Mashayekhi & Mashayekh, 2008). The mean of leverage (Lev) is 61%, which is consistent with Moayedi & Aminfard (2012), who note that the finance system in Iran is dominated by creditors.

Panel B of Table 3 reports the Spearman rank correlation matrix for the main variables. The correlation between CEOExper and Reatate is negative (-0.001) and not significant, indicating that insider CEOs may not be associated with financial restatement. In addition, the correlation between CEOFexp and Reatate is negative (-0.458) and statistically significant, indicating that CEO financial expertise may be associated with financial restatement. The correlations between the other variables (in two models) never exceed 50 percent, thus alleviating the concerns about multicollinearity affecting the results. Furthermore, the VIF scores (when estimated regressions) in all models are below the acceptable threshold of 10 (Field, 2013), thereby suggesting that multicollinearity is not a significant issue.

4.2. Multivariate analysis

Table 4 presents the results of the multivariate analyses for the research models. The results show that the coefficient on CEOExper is 0.337, which is significantly (P-value = 0.015) positively associated with the incidence of FR. Therefore, CEOs with more in-house experience increase the likelihood of the incidence of FR, and, hence, our first hypothesis (H1) that insider CEOs can be associated with the incidence of FR is supported. Such findings are consistent with the continuity perspective (Lauterbach et al., 1999) and support the resource dependence (Pfeffer & Salancik, 1978) and upper echelons (Hambrick & Mason, 1984) perspectives, which give emphasis to the advantages of recruiting outside CEOs. Furthermore, consistent with the second hypothesis (H2),

Table 3
Descriptive Statistics and correlations

Panel A. Descriptive statistics of variable						
Variable	N	Mean	Median	STD	Min.	Max.
Restate	1580	0.685	1.000	0.474	0.000	1.000
CEOExper	1580	0.348	0.000	0.476	0.000	1.000
CEOFexp	1371	0.266	0.000	0.442	0.000	1.000
CEOtenure	1580	3.563	3.000	2.668	1.000	13.000
CEOchair	1580	0.216	0.000	0.411	0.000	1.000
CEOown	1580	0.161	0.000	0.261	0.000	0.458
B-Size	1580	5.110	5.000	0.423	5.000	7.000
B-Ind	1580	0.647	0.600	0.177	0.200	1.000
Conown	1580	0.770	0.823	0.181	0.096	0.983
Instown	1580	0.377	0.299	0.308	0.000	0.972
Famown	1580	0.120	0.000	0.325	0.000	1.000
Auditttype	1580	0.228	0.000	0.419	0.000	1.000
Auditttenure	1580	3.728	3.000	2.689	1.000	14.000
Weak	1580	0.464	0.000	0.498	0.000	1.000
Zscore	1580	1.873	1.829	1.246	-2.094	6.936
FAGE	1580	3.335	3.663	0.418	2.302	4.413
Lev	1580	0.612	0.627	0.204	0.173	1.228
Finance	1580	0.344	0.242	0.385	-0.236	2.166
Size	1580	13.778	13.634	1.396	10.676	18.381
Recinv	1580	0.513	0.537	0.200	0.063	0.895
Growth	1580	0.206	0.142	0.487	-0.739	4.561
TwoLoss	1580	0.051	0.000	0.201	0.000	1.000
Accrual	1580	-0.018	-0.026	0.130	-0.468	0.311

Panel C. Spearman rank correlation matrix for main variables		
Variable	Restate	N
CEOExper	-0.001	1580
CEOFexp	-0.458***	1371

All variables are defined in Appendix A. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

CEOFexp is negatively associated (Coeff = -2.125, P-value = 0.000) with the incidence of FR. This result shows that with an increase in CEO financial expertise, the likelihood of the incidence of FR decreases, which is consistent with the previous research about the benefits of financial expert CEOs in financial reporting (e.g., Jiang et al., 2013; Custodio & Metzger, 2014; Kalelkar & Khan, 2016).

Commenting on the control variables, Table 4 reveals that CEOs with higher tenure (*CEOtenure*) increase the incidence of FR, which is consistent with prior studies (e.g., Bizjak et al., 2009; Lin et al., 2014). The association between institutional ownership (*Instown*) and family ownership (*Famown*) and the incidence of FR is negative and significant, which is consistent with prior studies (Abbott et al., 2004; Wang, 2006). Furthermore, consistent with prior literature, internal controls weakness (*Weak*) has a significant positive association (Plumlee & Yohn, 2010) and the firm age (*FAGE*) has a significant negative association with the incidence of FR (Beasley, 1996). In addition, the result shows that contrary to our expectations *Lev* is negative and *Size* is positively associated with the incidence of FR. Table 4 also reveals that client firms with consecutive losses (*TwoLoss*) are more likely to restate their FR, which is consistent with prior literature (DeFond & Zhang, 2014; Scholz, 2008). The explanatory power of the variables in Model (1) is approximately 13% and in Model (2) it is approximately 24%, which is comparable with prior studies (e.g., Presley & Abbott, 2013; Zhang et al., 2018).

Table 4
Regressions of CEO experience and financial expertise on financial restatement

Model	Variable	Expected sign	Model 1 (H1)		Model 2 (H2)	
			Coefficient	P-value	Coefficient	P-value
Intercept			-2.756*	0.069	-2.643	0.110
CEOExper	?		0.333**	0.015		
CEOFexp	-				-2.125***	0.000
CEOtenure	+		0.052**	0.031	0.054*	0.051
CEOchair	+		0.132	0.404	0.158	0.386
CEOown	+		0.044	0.856	0.031	0.913
B-Size	+		0.192	0.255	0.090	0.638
B-Ind	-		-0.468	0.237	-0.438	0.346
Conown	-		0.513	0.174	0.008	0.985
Instown	-		-0.573***	0.005	-0.977***	0.000
Famown	-		-0.443**	0.023	-0.233	0.351
Auditttype	-		0.078	0.658	-0.036	0.859
Auditttenure	-		-0.012	0.636	-0.039	0.193
Weak	+		1.091***	0.000	0.584***	0.000
Zscore	-		-0.029	0.695	0.019	0.833
FAGE	-		-0.502***	0.002	-0.148	0.448
Lev	+		-0.796**	0.074	-0.749	0.162
Finance	-		0.368	0.126	-0.159	0.565
Size	-		0.194***	0.000	0.224***	0.000
Recinv	+		0.645	0.138	0.835	0.114
Growth	+		-0.103	0.446	-0.171	0.306
TwoLoss	+		0.724**	0.033	0.631	0.150
Accrual	+		-0.434	0.477	-1.311*	0.067
Industry Fixed Effect			Included		Included	
Year Fixed Effect			Included		Included	
Observations			1580		1371	
LR [prob]			263.39*** [0.000]		441.21*** [0.000]	
Pseudo R ²			0.1299		0.2451	

This table illustrates the effect of CEO experience and financial expertise on financial restatement. All variables are defined in Appendix A. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

4.3. Supplementary analysis

4.3.1. Interaction effects between CEO experience and CEO financial expertise

The main results indicate that CEO experience and CEO financial expertise are associated with the increase and decrease in FR, respectively. Such findings raise the question concerning how the interaction of these two CEO characteristics affects the incidence of financial restatements. To examine this question, *CEOExper* is allowed to interact with *CEOFexp*, and this interaction term is included in the model. Table 5 reveals that the coefficient of *CEOExper***CEOpower* is significant and negative (P-value = 0.030), suggesting that a CEO with the combined attributes of experience and financial expertise leads to high-quality financial reporting.

In addition, the preceding findings are supplemented by performing a subsample analysis. In the first step, the sample is separated into the financial expert CEO (*CEOFexp*) group and non-financial expert CEO (*NonCEOFexp*) group in which the observations with financial expert CEO are considered as the *CEOFexp* group and others as the *NonCEOFexp* group. As reported in Table 5, *CEOExper* is negatively but insignificantly associated with FR for the *CEOFexp* group (P-value = 0.069), and *CEOExper* is positively and significantly associated with FR for the *NonCEOFexp* group (P-value = 0.023). In the next step, the sample is separated into the CEO with

more in-house experience (*CEOExper*) group and CEO with less in-house experience (*NonCEOExper*) group in which the observations with CEO with experience are considered as the *CEOExper* group and others as the *NonCEOExper* group. The results in Table 5 show that *CEOFexp* is negatively significantly associated with FR for both groups. However, the level of significance and size effect of *CEOFexp* on the FR for the *CEOExper* group is significantly higher than for the *NonCEOExper* group. Overall, the results highlight the importance of financial expertise and show that the effect of CEO experience on financial reporting is more observable if they qualify as a financial expert.

4.3.2. CEO power

Previous studies reveal that CEOs with more decision-making power can greatly impact the financial strategies of the company (e.g., Chikh & Filbien, 2011; Veprauskait & Adams, 2013; Gounopoulos & Pham, 2018). In particular, Gounopoulos & Pham (2018) find that the effect of financial expert CEOs on the reduction in accrual earnings management is more profound when they exercise more power and the decision-making power of CEOs enables them to influence CFOs' decisions more strongly. Therefore, it can be expected that the association between CEO characteristics and financial restatements are also be affected by CEO power.

While no measure is likely to capture every possible dimension of CEO power (Veprauskait & Adams, 2013), we construct CEO power by four sources of power – CEO tenure, CEO duality, CEO ownership, and board power – as supported in the extant literature (e.g., see Combs et al., 2007; Liu & Jiraporn, 2010; Veprauskait & Adams, 2013; Sheikh, 2018, 2019).

CEO power is enhanced with the length of tenure, by reason of being able to affect the selection of the board members and control the board composition (Hermalin & Weisbach, 1998). Long-standing CEOs, compared to CEOs with short tenure, are more likely to enhance their expertise and experience regarding the corporate operations, and this can affect the way they make and implement their decisions (Herrmann & Datta, 2002). Accordingly, tenure could be used as a proxy for expert power (Gounopoulos & Pham, 2018). CEO duality is one of the other ways of enhancing power in which the CEO also holds the position of the chairman of the board (Hermalin & Weisbach, 1998). CEO duality is used as a proxy for positional power (Gounopoulos & Pham, 2018); since CEOs hold the highest position in the corporate hierarchy, they exert a dominant influence, which enhances their decision-making power (Larcker & Tayan, 2012). Moreover, CEOs who have a major ownership, take advantage of more power in the company compared to CEOs without stock ownership (ownership power) (Larcker & Tayan, 2012; Veprauskait & Adams, 2013). Finally, outsider or independent directors on the board are more effective in monitoring CEOs (Bhagat & Black, 2002; Fama & Jensen, 1983). A high proportion of outsider directors restricts CEO opportunities to make unilateral decisions (Sheikh, 2018). Thus, board independence could be regarded as a proxy for the board power (Sheikh, 2018).

We standardize and aggregate the four variables to generate the variable CEO power. That is, CEO tenure equals 1 if the tenure length is greater than the sample median, otherwise 0 (Sheikh, 2018). CEO duality is defined as a dummy variable and equals 1 if the CEO also holds the chairman position of the board, otherwise 0. Moreover, CEO ownership equals 1 if CEO is a majority shareholder (i.e., ownership

Table 5
Analysis of the interaction effect between CEO experience and CEO financial expertise

Variable	Restate		Restate		Restate	
	Coefficient [P-value]	CEOFexp Coefficient [P-value]	NonCEOExp Coefficient [P-value]	CEOExper Coefficient [P-value]	NonCEOExper Coefficient [P-value]	
Intercept	-2.393 [0.153]	-7.953 [0.106]	-2.313 [0.200]	-1.803 [0.613]	-4.411* [0.065]	
CEOExper	0.287 [0.123]	-0.735* [0.069]	0.398** [0.023]			
CEOFexp	-1.864*** [0.000]			-3.307*** [0.000]	-2.050*** [0.000]	
CEOExper* CEOFexp	-0.759** [0.030]					
CEOTenure	0.059** [0.036]	0.103 [0.153]	0.062** [0.039]	0.029 [0.599]	0.116*** [0.005]	
CEOChair	0.175 [0.346]	-1.120** [0.013]	0.563*** [0.009]	0.282 [0.458]	-0.084 [0.727]	
CEOOwn	-0.059 [0.838]	-0.142 [0.836]	0.038 [0.902]	-1.213* [0.078]	0.132 [0.702]	
B-Size	0.046 [0.804]	1.046 [0.131]	-0.092 [0.641]	-0.675* [0.063]	0.088 [0.782]	
B-Ind	-0.465 [0.322]	-0.756 [0.498]	-0.604 [0.227]	-0.006 [0.994]	0.057 [0.926]	
Conown	-0.108 [0.808]	2.909** [0.011]	-0.094 [0.860]	0.213 [0.828]	0.329 [0.630]	
Instown	-0.959*** [0.000]	-2.480*** [0.000]	-0.416 [0.105]	-0.347 [0.520]	-1.096*** [0.000]	
Famown	-0.294 [0.210]	0.458 [0.435]	-0.288 [0.270]	-0.728* [0.089]	0.118 [0.755]	
Audittype	-0.032 [0.877]	0.141 [0.799]	0.207 [0.350]	-0.489 [0.338]	0.103 [0.667]	
Audit tenure	-0.041 [0.179]	0.062 [0.429]	-0.072** [0.026]	0.021 [0.755]	-0.063* [0.092]	
Weak	0.578*** [0.000]	-0.127 [0.741]	0.706*** [0.000]	-0.214 [0.502]	0.682*** [0.000]	
Zscore	0.028 [0.756]	-0.090 [0.660]	0.045 [0.649]	-0.548** [0.011]	0.184 [0.102]	
FAge	-0.203 [0.303]	-0.940* [0.096]	-0.063 [0.746]	0.458 [0.368]	0.155 [0.509]	
Lev	-0.634 [0.242]	-1.210 [0.311]	-0.490 [0.402]	-1.944** [0.070]	0.673 [0.367]	
Finance	-0.128 [0.644]	-1.021 [0.211]	-0.062 [0.822]	0.394 [0.548]	-0.086 [0.796]	
Size	0.228*** [0.001]	0.082 [0.578]	0.271*** [0.000]	0.329** [0.036]	0.243*** [0.004]	
Recinv	0.730 [0.171]	1.475 [0.194]	0.176 [0.856]	3.031** [0.012]	0.083 [0.902]	
Growth	-0.184 [0.273]	-0.394 [0.429]	-0.176 [0.257]	-0.141 [0.647]	-0.180 [0.446]	
Twoloss	0.672 [0.129]	0.124 [0.892]	0.627 [0.121]	0.152 [0.880]	1.020* [0.088]	
Accrual	-1.245* [0.083]	-2.138 [0.236]	-1.375* [0.076]	-0.550 [0.723]	-0.755 [0.404]	
Industry Fixed Effect	Included	Included	Included	Included	Included	
Year Fixed Effect	Included	Included	Included	Included	Included	
Observations	1371	366	1214	485	879	
LR[prob]	446.31*** [0.000]	120.18*** [0.000]	114.34*** [0.000]	285.22*** [0.000]	264.55** [0.000]	
Pseudo R ²	0.2479	0.2826	0.0887	0.4451	0.2295	

This table illustrates interaction effect between CEO experience and CEO financial expertise on financial restatement. All variables are defined in Appendix A. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

of more than 3 percent of the total share), and otherwise 0 (Veprauskait & Adams, 2013). We also create an indicator variable board power that equals 1 if the proportion of independent directors on the board is less than the sample median proportion of independent directors and 0 otherwise (Sheikh, 2018). Finally, the assigned scores to the four variables are summed and CEO power is obtained.

We then create an interaction term between CEO characteristics (i.e., experience and financial expertise) and CEO power, and run the main regressions (Eq. (1) and Eq. (2)) including the interaction effect. The results are presented in Table 6. The interaction coefficient of CEO experience and CEO power ($CEOExper*CEOPower$) effect is negative and significant. This shows that CEO power significantly reduces the positive effect of CEO experience on the FR. In other words, insider CEOs who have decision-making power could improve the financial reporting quality by reducing FR. Furthermore, the interaction effect coefficient of CEO financial expertise and CEO power ($CEOExper*CEOPower$) is negative and significant, but its intensity is lower than that of the coefficient of $CEOFexp$ ($P=0.000$). That is, the more powerful the financial expert CEOs, the less effect they have on financial reporting.

Table 6
Analysis of the interaction effects of CEO power

Model	Variable	Expected sign	Model 1		Model 2	
			Coefficient	P-value	Coefficient	P-value
	Intercept		-2.908**	0.036	-2.898*	0.073
	CEOExper	?	0.725***	0.001		
	CEOExper* CEOpower	?	-0.323**	0.031		
	CEOFexp	-			-1.650***	0.000
	CEOFexp* CEOpower	?			-0.446**	0.015
	CEOPower	+	0.238***	0.009	0.256**	0.014
	B-Size	+	0.192	0.254	0.082	0.666
	Conown	-	0.462	0.214	-0.108	0.799
	Instown	-	-0.535**	0.008	-0.931***	0.000
	Famown	-	-0.393**	0.039	-0.118	0.596
	Auditytype	-	0.072	0.684	-0.106	0.605
	Audit tenure	-	-0.008	0.764	-0.032	0.285
	Weak	+	1.100***	0.000	0.575***	0.000
	Zscore	-	-0.015	0.830	-0.006	0.943
	FAge	-	-0.503***	0.002	-0.135	0.486
	Lev	+	-0.741*	0.090	-0.832	0.112
	Finance	-	0.387	0.107	-0.127	0.645
	Size	-	0.186***	0.001	0.224***	0.001
	Recinv	+	0.640	0.141	0.910*	0.085
	Growth	+	-0.091	0.498	-0.173	0.294
	Twoloss	+	0.743**	0.029	0.593	0.183
	Accrual	+	-0.400	0.511	-1.299*	0.089
	Industry Fixed Effect		Included		Included	
	Year Fixed Effect		Included		Included	
	Observations		1580		1371	
	LR (prob)		263.16*** (0.000)		442.60*** (0.000)	
	Pseudo R ²		0.1298		0.2459	

This table illustrates the effect of CEO experience and financial expertise on financial restatement, controlling for the interaction effect CEO power. CEO power is measured as the sum of the standardized variables: CEO tenure, CEO duality, CEO ownership and board power. All variables are defined in Appendix A. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

5. Conclusions

The theoretical literature presents different views on the effects of CEOs hired from within the company. Hence, we examine whether insider CEOs are linked to FR incidents. In addition, financial experience provides CEOs with a deep understanding of the accounting and financial issues and enables them to make appropriate accounting decisions. Our findings demonstrate that firms hiring CEOs from within are more subject to FR. In contrast, FR is considerably less in firms with financial expert CEOs. Therefore, the results support the theoretical viewpoints of opponents of recruiting successor CEOs from within. Nonetheless, the existing concerns could decrease through appointing insider financial expert CEOs, because our results show that when insider CEOs have finan-

cial expertise they can affect the financial reporting quality positively by reducing FR. Overall, our findings demonstrate that CEO financial background is of great importance in improving financial reporting quality. Moreover, our findings suggest that decision-making power could reduce the positive effect of insider CEOs on the FR. In general, this study extends the literature on CEO characteristics and financial restatements.

This study makes a significant contribution to the CEO succession planning literature by showing that the existing concerns about recruiting a CEO successor could be reduced by considering the other characteristics of CEOs, such as financial expertise. Moreover, some evidence on the relative importance of the interaction between CEO characteristics regarding FR is provided, which has not been reviewed in prior research on financial reporting quality. More specifically, previous studies investigate the association between CEO characteristics including CEO overconfidence (Presley & Abbott, 2013) and CEO age (Huang et al., 2012), and FR, whereas the current study is the first to document the effect of CEO experience and financial expertise on the incidence of FR. Further, the present paper adds to that research stream that examines the manager fixed effects on variables, such as financial reporting quality (Demerjian et al., 2013) and voluntary disclosures (Bamber et al., 2010). Along the same line, this study highlights the significance of CEO characteristics, in general, and CEO financial expertise, in particular, in the corporate governance setting that is considered relevant in prior restatement research (e.g., Abbott et al., 2004; Carcello et al., 2011; Abbott et al., 2012; Habib & Hossain, 2013). Finally, this paper contributes to the existing knowledge of the determinants and consequences of FR including financial reporting quality (Palmrose & Scholz, 2004), the reduced firm value (Palmrose & Scholz, 2004), higher cost of capital (Bardos & Mishra, 2014), negative stock price reaction (Wilson, 2008; Chen et al., 2014), higher litigation risk, (Palmrose & Scholz, 2004; Bardos & Mishra, 2014), and an increase in CEO/CFO turnover (Hennes et al., 2008).

The findings also have important implications for regulators, the boards of directors and shareholders, specifically in emerging markets by suggesting the importance of financial background for senior executives. These findings should be interpreted with caution because of potential limitations. One limitation is the unavailability of sufficient information due to the lack of public disclosure in Iran. For instance, the information about CEO characteristics, such as age and compensation are not considered due to the resistance of the listed companies on the TSE to disclose such information. Moreover, owing to the absence of requirements, many Iranian companies did not constitute audit committees from 2007 to 2013, which meant we were unable to control for the information related to audit committees. Thus, despite using a reasonably large sample, this study could suffer from an omitted variables problem. Future research can review the research problem and control for such information.

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Conflict of interests

The authors declare no conflict of interests.

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