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# The impact of financial restatement on auditor changes: Iranian evidence

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## Abstract

**Purpose** – This paper aims to examine the effect of financial restatement on changing the auditor in the following years.

**Design/methodology/approach** – The study uses data of 105 companies (735 company-years) listed on the Tehran Stock Exchange collected during the period 2008-2014. Logistic regression is used to test the hypotheses.

**Findings** – The results of hypotheses present that restatement does not cause auditor changes and that as the severity of a restatement increases, the auditor change in the following year of restatement also does not increase. Restating companies having strong governance do not go for auditor changes as compared with other companies. In addition, in companies that are restating, non-big auditor changes are not more likely than a big auditor. Also, in companies restating simultaneous with a CEO turnover, there is no possibility of auditor change. Furthermore, multinomial logistic regression showed that the adjustments resulting from the correction of errors and changes in procedures and the amount of adjustments do not cause auditor change in the following year. So, the results have shown that the restatement is not an important factor in changing auditor the next year.

**Originality/value** – The current study analyses the impact of financial restatement on auditor changes in a deep manner in a developing country like Iran.

**Keywords** Corporate governance, Audit firm size, Restatement, Auditor change, CEO change

**Paper type** Research paper

## 1. Introduction

The financial statements of companies listed on the Tehran Stock Exchange suggest that financial statements are more likely to be for companies with annual adjustments. Although responsible for the preparation and presentation of the financial statements of a management's firm, audited financial statements, a joint product auditee and the auditor will be considered. A company may want to enhance the quality of auditing and restoring its reputation after announcing financial restatements to public investors and therefore may apply to dismiss its auditor. Restatements have a significant impact on a company, which may impose severe costs on firms. In common views, it depends on the type of restatement as it can often decrease the audit quality.



A common definition of audit quality by DeAngelo (1981) is “assessment (inferred) market”, with the possibility that the auditor has defined it as either:

- cases of material misstatement in the financial statements and accounting system or client to be discovered; or
- material misstatement found to be reported.

The financial restatements are a factor that, in addition to offering comparability, can put in doubt the reliability of financial statements. In fact, financial restatements, unlike bankruptcy and firm failure, reflects a company’s financial credit crisis, constitutes a breach of trust of shareholders and are signals indicating that the financial statements are not valid (Chen *et al.*, 2014).

Financial restatements raise questions about the integrity of management, the adequacy of internal controls, the effectiveness of the audit committee, auditor independence and audit quality (Gleason *et al.*, 2008). In addition, when the audited financial statements are restated, the validity of the auditor’s opinion and the audit process will sometimes be questioned because published data are, on occasion, not free of critical errors (Stanley and DeZoort, 2007). The financial restatements are not only considered a failure during the process of financial reporting but also, more importantly, considered a failure of audit (Mande and Son, 2013). Given the incentives and disincentives that exist in the relationship between the external auditor and the audited, the auditor–client relationship is expected to end. If the restatement is due to mistakes that are considered a failure during the audit, it is expected that the current auditor will be dismissed and an auditor of higher quality will be selected by the company as a replacement. Liu *et al.* (2009) stated that the US Securities and Exchange Commission and users of the financial statements considered the restatement to be a sign of auditor weakness, and their results showed that shareholders are more willing to dismiss the auditor after financial restatements. In addition, there are studies which argue that the rate of auditor dismissal after the financial restatements is more than the normal rate of auditor’s dismissal (Hennes *et al.*, 2012). Overall, that is the subject of this study: whether auditor change occurs following financial restatements; and, as the severity of a restatement increases, does the restatement in the year following the auditor change also increase? If the restatement is considered to be a result of auditor failure, restatement companies with strong corporate governance are more likely to change their auditors more often. Is it possible for restatement companies to change non-big audit firms more often as compared with big audit firms, and is auditor change more likely simultaneously with chief executive officer (CEO) change?

### 1.1 Iranian accounting and financial reporting environment

Auditing standards are regulatory and are compiled by professional associations (in Iran by Iran’s CPA) and are communicated to auditing firms. These auditing standards undertake the validation and insurance of financial statement duty. Therefore, the auditing standards pay attention to financial statement users and try to financial information with more transparency. The Tehran Securities and Exchange Organization (TSEO) (2013) notes that the objective of the formation of auditing is to assist corporate boards of directors in fulfilling their supervision function and provide reasonable assurance concerning:

- the effectiveness of corporate governance procedures, risk management and internal controls;
- quality of financial reporting;
- effectiveness of internal auditing;

- independence of external auditors as well as the effectiveness of external auditing; and
- compliance with regulations and requirements.

## 2. Theoretical issues, literature review and hypotheses development

Economic decision makers always need reliable information to make reasonable and logical decisions. Providing such information is exclusive to economic companies and enterprises, and the information users rely on the financial information (Salehi *et al.*, 2017c). As such, auditors lend credibility to financial information. Audited financial statements are used to ensure transparency regarding the financial information of firms, so audit quality is an important aspect in the field of audit and capital market (Salehi *et al.*, 2017b).

Although responsible for the preparation and presentation of financial statements within a management firm, audited financial statements, a joint product auditee and the auditor will be considered. A company may apply to dismiss its auditor to enhance the quality of their auditing and refund reputation after announcing financial restatements to public investors. Restatements have a significant impact on a company, which may impose severe costs on firms. In the common view, it depends on the type of restatement and can decrease audit quality. In this section, we express evidence of researchers' previous efforts to study the effect of financial restatement on the change in auditor in the form of financial restatements, severity of restatement, corporate governance, audit firm size, CEO change as well as other factors.

### 2.1 Financial restatements

Financial statements of business units are only useful when they have been consistently prepared with information included from previous periods. Observing uniformity in the preparation of financial statements enables the comparison of the financial statement items during different periods (Nevisi *et al.*, 2005). The purpose of financial restatements is so that the qualitative characteristics of the comparability of financial statements can be maintained. Palmrose *et al.* (2004) argued that the need for financial restatements is determined by a company's management, its auditor or the US Securities and Exchange Commission.

Studies have shown that a high percentage of restatements in Iran are due to the correction of accounting errors (Kurdestani *et al.*, 2010). This indicates that the accounting information is questionable in terms of being free from falsehood. The results of Saei *et al.* (2013) showed that the maximum financial restatement, in terms of numbers, is related to debts. Debts include accounts such as tax savings, declared and payable dividends and accounts payable within the group; 34.20 per cent of the debt restatement are due to reforming tax saving balance because the tax proceeding is time-consuming.

Some studies have stated the consequences of the following financial restatements: financial restatements increase the cost of capital (Hribar and Jenkins, 2004) and the change of board of directors, CEO and audit committee changes (Srinivasan, 2005), and shareholders are more willing to dismiss the auditor after financial restatements (Liu *et al.*, 2009).

Hennes *et al.* (2012) showed that the rate of auditor dismissal after financial restatement is more than the normal rate of auditors' dismissal. Mande and Son (2013) examined the relationship between the financial restatements and auditor change, and their results showed that restatement is an important factor for changing the auditor in the next year. Agrawal and Cooper (2007) illustrated that the turnover of CEO, senior management and

employees in restatement companies is higher as compared to controls, but no evidence has been found that the restatement companies were more likely to change their auditors. On the other hand, the results by [Chi and Sun \(2014\)](#) indicated that financial restatement have a negative relationship with the auditor change, CEO replacement and the improvement of the internal control system.

[Salehi et al. \(2017a\)](#) provided empirical evidence on the impact of abnormal audit fees on future restatements. The results reveal that there is a negative relationship between the two; specifically, abnormal audit fees are lower in the periods leading up to the occurrence or announcement of the restatement. In fact, the probability of repetition of future restatement is reduced by changing auditor, CEO replacement and the improvement on internal controls.

On the basis of the above, the first hypothesis is expressed as follows:

*H1.* There is a relationship between restatements of financial information and audit change in the following year.

### *2.2 Severity of restatement*

The figure of financial statements is not equal to the figure of financial restatement for several reasons, including change in accounting practices, mistakes, revision of estimates made by management and change in the classification of provided figures. The only change in accounting procedure and error correction is classified as annual adjustments and their effect will be ex post facto ([Saei et al., 2013](#)). The annual adjustments also adjust the net balance (loss) accumulated at the beginning of the period.

[Mande and Son \(2013\)](#) concluded that if the severity of financial restatement increases, the auditor change will be increased. The results by [Hennes et al. \(2013\)](#) showed that after severe financial restatement, more auditors are dismissed. They indicate that the severity of restatement is positively related with the auditors' dismissal rate.

On the basis of the above, the second hypothesis is expressed as follows:

*H2.* As the severity of a restatement increase, the auditor changes in the following year of restatement also increases.

### *2.3 Corporate governance*

Corporate governance mechanism created in response to conflicts of interest between owners and managers in companies and the conflicts of interest arising from the separation of ownership and control, and corporate governance mechanisms can be internal or external ([Gillan et al., 2007](#)).

Various studies have shown that the financial restatements may occur more often in companies with poor corporate governance, but some research suggests that no significant relationship exists between the components of corporate governance and financial restatements. Some of the research carried out in this area, including research by [Nabar et al. \(2009\)](#), found that in restatement firms before the financial restatements, the possibility of the presence of a board and an audit committee with lower independence is more than that of the control group companies. [Baber et al. \(2009\)](#) show that restatement occurs more in companies with poor corporate governance. But [Abdullah et al. \(2010\)](#) found that the main reason for data manipulation is achieving a certain level of profit and, among independence of the board, CEO ownership and duality of CEO tasks, there are no significant relationships with financial restatements.

In this study, corporate governance is applied as a moderating variable between financial restatements and auditor change. Lin and Liu (2009) stated that the establishment of the efficient governance system can reduce auditor switches and, therefore, improve the quality of audits. But the results of Asthana *et al.* (2010) showed that companies with stronger corporate governance were more likely to change their auditor at the beginning of the collapse of Enron. However, Chen and Zhou (2007) found that companies with a more independent audit committee had financial expertise, and an independent board of directors and had already ended their relationship with Anderson sooner.

In addition, Farber (2005) argued that corporate governance plays an important role in restoring the credibility of financial reporting after financial restatements. Mande and Son (2013) showed that auditor change is more prevalent in restatement companies with strong corporate governance, so if we consider the restatement as the failure in an audit, it is expected that companies with a higher corporate rate perform measures to restore the confidence of investors and audit quality by changing the auditor.

Given the above, the third hypothesis is expressed as follows:

*H3.* Restatement companies with stronger corporate governance as compared with other companies change their auditors more in the following year.

#### *2.4 Audit firm size*

The auditor change process has two stages: the decision to change the auditor and the decision to choose a new one (Francis and Wilson, 1988). Companies that choose large audit firms are usually large themselves and have more sophisticated operations and dismiss their auditors less (Hennes, Leone and Miller, 2013).

Although financial restatements increase investor concerns over the ability of an auditor to monitor the future financial reporting, restatement does not always change the auditor. Auditor change is costly (Hennes *et al.*, 2013). Costs are imposed on the auditor and the audited. The cost of changing the auditor includes the following:

- costs incurred by the client for auditor training about company operations, systems, financial reporting methods and accounting issues;
- costs incurred by the client to choose a new auditor (the time taken to review proposals); and
- increased risk of auditor failure in the first year of audit (Blouin *et al.*, 2007; Geiger and Raghunandan, 2002; Myers *et al.*, 2003).

There are higher costs for larger companies to change their auditors after restatements, and often, smaller auditing companies are dismissed as compared to larger ones (Hennes *et al.*, 2012). The results by Hennes *et al.* (2013) showed that after severe restatement, auditors were more likely to be dismissed, and that the severity of restatements has a positive association with the auditors' dismissal rate; they also found that non-big auditors' dismissal rate (12.4 per cent) is higher than that of big auditors' dismissal rate (9.3 per cent).

Given the above, the fourth hypothesis is expressed as follows:

*H4.* In restating companies, non-big auditing firms change more as compared with big audit firms in the following year.

### 2.5 Chief executive officer (CEO) change

Financial restatements result in a loss of investor confidence about the reliability of financial statements. Restating companies change their board of directors and CEOs to improve the quality of financial reporting (Desai *et al.*, 2006; Srinivasan, 2005). Restating companies may change both their auditors and CEOs, or may choose to change only one of them. Results by Agrawal and Cooper (2007) showed that the changes of CEO and senior managers' within financial restating companies is more than other firms, at 14 and 8 per cent respectively; moreover, they found no evidence by using logistic regression to show that the auditor change was high in restating companies. The results of the analysis of 230 companies by Land (2010) showed that companies with high restatement are more likely to change CEO.

The results by Hennes *et al.* (2008) showed the percentage of CEO turnover in the 12 months after restatement (six months before to six months after) for restatement due to irregularities is 49 per cent and for restatement due to error is 8 per cent. Desai *et al.* (2006) found that the top executives in 60 per cent of restating companies changed. Wilson (2008) examined the reduction of the profit information content after financial restatements and discovered that companies that changed their auditors and board members immediately after the restatement experienced less reduction in information content.

Hennes *et al.* (2013) suggested a weak positive relationship between the CEO change and auditor dismissal. But the chief financial officer (CFO) has a stronger positive relationship with the auditors' dismissal. In general, results showed that the board of directors changes the CEO and the auditor in response to financial restatements.

On the basis of the above, the fifth research hypothesis is expressed as follows:

*H5.* Restating companies simultaneous with the CEO change are more likely to change auditors.

### 3. Samples and models

The study period includes 2008 to 2014. Table I presents the sample selection. Total of observations is 2,212 firm-years.

Research sample includes companies that have been extracted, on the basis of the following conditions and characteristics from the study population:

- the company must be listed before 2008;
- financial and non-financial information required for this research should be available in the research period; and
- the selected company should not be among financial and investment companies.

Also, in Iran, according to Clause 2, Article 10 of the instructions of the audit firms certified by the Stock Exchange adopted in July 30, 2007 of Supreme Council of Stock Exchange, audit firms and partners responsible for auditing each of the legal entities are not permitted

Firm-year observations	
Total of firm-year observations from 2008 to 2014	2212
Companies that been listed after year 2008 in stock	(273)
Financial and non-financial information required to perform the study period is not available	(812)
Companies selected among financial and investment companies	(392)
Number of selected samples	735

**Table I.**  
The sample number

to accept the external auditors and legal ombudsman after four years, so for the purposes of this study, auditor mandatory change is controlled.

Thus, 105 companies were selected during the period from 2008 to 2014, with a total of 735 (firm-year) observations. The final sample includes companies that are both restating and non-restating. If a company has restatements in one year but does not have restatements in the other years, only the same as firm-year observations is placed in group restating. Other year observations will be in group non-restating companies.

### 3.1 Expanding the research model

The following models will be used to test research hypotheses.

#### Model (1)

$$\begin{aligned} AUDITOR\ CHANGE_t = & B_0 + B_1REST_{t-1} + B_2MODOP_{t-1} + B_3TENURE_{t-1} \\ & + B_4LNAF_{t-1} + B_5EXPERT_{t-1} + B_6ROA_{t-1} + B_7LOSS_{t-1} \\ & + B_8LVRG_{t-1} + B_9GROWTH_{t-1} + B_{10}DA_{t-1} \\ & + B_{11}SIZE_{t-1} + \varepsilon_{it} \end{aligned}$$

wherein AUDITOR CHANGE: auditor change; REST: financial restatement; MODOP: auditor's opinion; TENURE: natural logarithm of auditor tenure; LNAF: natural logarithm of audit fees; EXPERT: auditor industry specialization; ROA: return on assets; LOSS: company loss; LVRG: financial leverage; GROWTH: sale growth; DA: accruals and SIZE: company size.

According to financial restatement (REST) whose factor is  $B_1$ , significance of the first hypothesis is investigated.

Independent variables for test research hypotheses are included:

- *REST*: financial restatement (first hypothesis);
- *RESTAMT*: the severity of financial restatement (second hypothesis);
- *GOV*: corporate governance index and  $GOV \times REST$ : the simultaneous effect of financial restatement and corporate governance (third hypothesis);
- *NONBIG*: size of audit firm and  $NONBIG \times REST$ : the simultaneous effect of financial restatement and audit firm size (fourth hypothesis); and
- *CEO\_TO*: CEO change and  $REST \times CEO\_TO$ : the simultaneous effect of financial restatement and CEO change (fifth hypothesis).

#### Model (2)

$$\begin{aligned} AUDITOR\ CHANGE_t = & B_0 + B_1RESTAMT_{t-1} + B_2MODOP_{t-1} + B_3TENURE_{t-1} \\ & + B_4LNAF_{t-1} + B_5EXPERT_{t-1} + B_6ROA_{t-1} + B_7LOSS_{t-1} \\ & + B_8LVRG_{t-1} + B_9GROWTH_{t-1} + B_{10}DA_{t-1} \\ & + B_{11}SIZE_{t-1} + \varepsilon_{it} \end{aligned}$$

wherein RESTAMT: the severity of financial restatement.

Due to the variable of severity of financial restatement (RESTAMT) with a factor of  $B_1$ , significance of the second hypothesis is investigated.



Model (3)

$$\begin{aligned}
 AUDITOR\ CHANGE_t = & B_0 + B_1 REST_{t-1} + B_2 GOV_{t-1} + B_3 REST_{t-1} \times GOV_{t-1} \\
 & + B_4 MODOP_{t-1} + B_5 TENURE_{t-1} + B_6 LNAF_{t-1} \\
 & + B_7 EXPERT_{t-1} + B_8 ROA_{t-1} + B_9 LOSS_{t-1} + B_{10} LVRG_{t-1} \\
 & + B_{11} GROWTH_{t-1} + B_{12} DA_{t-1} + B_{13} SIZE_{t-1} + \varepsilon_{it}
 \end{aligned}$$

wherein GOV: corporate governance index and GOV × REST: the simultaneous effect of financial restatement and corporate governance.

Considering the simultaneous effect of financial restatement and corporate governance (GOV × REST) with a factor of B<sub>3</sub>, significance of the third hypothesis is investigated.

Model (4)

$$\begin{aligned}
 AUDITOR\ CHANGE_t = & B_0 + B_1 REST_{t-1} + B_2 NONBIG_{t-1} + B_3 REST_{t-1} \\
 & \times NONBIG_{t-1} + B_4 MODOP_{t-1} + B_5 TENURE_{t-1} \\
 & + B_6 LNAF_{t-1} + B_7 EXPERT_{t-1} + B_8 ROA_{t-1} \\
 & + B_9 LOSS_{t-1} + B_{10} LVRG_{t-1} + B_{11} GROWTH_{t-1} \\
 & + B_{12} DA_{t-1} + B_{13} SIZE_{t-1} + \varepsilon_{it}
 \end{aligned}$$

wherein NONBIG: size of audit firm and NONBIG × REST: the simultaneous effect of financial restatement and audit firm size.

Considering the simultaneous effect of financial restatement and audit firm size (NONBIG × REST) with a factor of B<sub>3</sub>, the significance of the fourth hypothesis is investigated.

Model (5)

$$\begin{aligned}
 AUDITOR\ CHANGE_t = & B_0 + B_1 REST_{t-1} + B_2 CEO\_TO_t + B_3 REST_{t-1} \\
 & \times CEO\_TO_t + B_4 MODOP_{t-1} + B_5 TENURE_{t-1} \\
 & + B_6 LNAF_{t-1} + B_7 EXPERT_{t-1} + B_8 ROA_{t-1} \\
 & + B_9 LOSS_{t-1} + B_{10} LVRG_{t-1} + B_{11} GROWTH_{t-1} \\
 & + B_{12} DA_{t-1} + B_{13} SIZE_{t-1} + \varepsilon_{it}
 \end{aligned}$$

wherein CEO\_TO: CEO change and REST × CEO\_TO: the simultaneous effect of financial restatement and CEO change.

Due to the simultaneous effect of financial restatement and CEO change (REST × CEO\_TO) with a factor of B<sub>3</sub>, significance of the fifth hypothesis is investigated.

3.2 Measurement of variables

3.2.1 Measurement of dependent variable. Auditor change: if the company changes its auditor in the year after the restatement is one and otherwise zero.

3.2.2 *Measurement of independent variables.* In this study, to investigate the hypotheses, financial restatements, severity of financial restatement, corporate governance index, audit firm size and CEO change are considered as independent variables:

- (1) *Financial restatements (REST)*: If the annual adjustment is more than the importance measure, it is 1 and otherwise it is 0. The importance criterion is 40 per cent in most of the annual adjustments (Agrawal and Cooper, 2008).
- (2) *Severity of restatement (RESTAMT)*: Annual adjustments to the total assets at the end of the fiscal year before the restatement.
- (3) *Corporate governance index (GOV)*: In this study, the variables, including the independence of the board of directors, institutional ownership, presence of a CEO in the board of directors, ownership concentration, stability of CEO and transactions with related parties are used. Each of the six variables of corporate governance received a score of 0 or 1 that, by summing them up, calculates a corporate governance score. A company with an index of 3 or greater (2 or below) is classified as corporate governance with high (low) quality. These six variables are defined as follows:
- (4) *Board of directors independence (RINDBD)*: One if the ratio of non-executive members to all the board of directors is more than or equal to 60 per cent, otherwise 0 (Defond et al., 2005). Research shows that a high percentage of companies in Iran have many corrections of errors in accounting, financial statement restatements and adjustments in figures in their annual reports (Kurdestani et al., 2010).
- (5) *Institutional ownership (INOWN)*: One percentage of institutional ownership is greater than the sample average, which are otherwise 0s (Defond et al., 2005). Percentage of shares held by institutional investors is equal to the percentage of shares held by institutions, insurance companies and banks, governmental and semi-governmental firms, investment institutions and legal entities.
- (6) *Presence of CEO in the Board of Directors (CEO)*: If the CEO is a board member it is 0 and otherwise 1.
- (7) *Concentration of ownership (CENT)*: The percentage of the company's share focus, which is obtained from the proportion of shares held by the greatest shareholder to the whole shares of firm (Lin and Liu, 2009; Davidson et al., 2005; Ding, Zhang and Zhang, 2007). If it is greater than average, 1 and otherwise, 0.
- (8) *Stability of CEO (CEO-TENURE)*: The change of CEO in the past two years, 0 and otherwise is 1.
- (9) *Related party transaction (RPT)*: The proportion of related party transaction to firm sale (Lee et al., 2014). If the related party transaction is greater than firm share of total companies mean, it is 0 and otherwise, 1.

There are different criteria for measuring corporate governance. DeFond et al. (2005) considered six features of corporate governance (including board size, board independence, audit committee size, audit committee independence, shareholders rights [based on governance indicators by Gompers et al. (2003)] and institutional ownership). Corporate governance index in the research by Cassell et al. (2012) included board independence, CEO task duality, board of directors and audit committee meetings, staggered selection of board of directors and audit committee members' financial expertise.

Governance index (GOV), proposed by DeFond et al. (2005), is used to measure corporate governance. In the absence of an audit committee in the listed companies in Iran's stock

exchange and the fact that the board size is usually five in most of the companies in this study, to measure the corporate governance index of variables board of directors, independence, institutional ownership (according to [DeFond et al., 2005](#)), the presence of a CEO in the board of directors, CEO stability, transactions with related parties and ownership concentration is used.

The presence of institutional shareholders increases the quality of ownership structure and, despite increasing the quality of corporate governance, act as the depositary and reducer of agency costs ([Chung and Zhang, 2009](#)). Therefore, institutional shareholders have positive impacts on corporate governance. The presence of persons on a board of directors who have no executive positions in the company has positive effects on corporate governance, while CEO membership in the board of directors has negative effects on corporate governance. The concentration of ownership has a positive correlation with corporate governance ([Guriev et al., 2003](#)). Poor corporate governance mechanism is associated with higher transaction with related parties ([Gordon et al., 2004](#)).

To measure size of the audit firm (NONBIG) variable, the following two criteria are used:

- (1) the number of partners of the audit firms is calculated such that if it is less than five, is 1 and otherwise 0; and
- (2) the audit organization is considered a big audit firm and other audit institutions a non-big audit firms. If the firm is audited at the time of restating by the non-big audit firm, it is 1 and otherwise, 0 ([Hennes et al., 2013](#)).

Chief executive officer (CEO) change (CEO-TO): if the CEO is changed in the years after the restatements it is 1, otherwise it is 0 ([Hennes et al., 2013](#)).

*3.2.3 Measurement of control variables.* There are other factors that may be associated with the change of the auditor, which are also controlled by entering into the model. Generally, factors affecting the auditor change can be divided into two groups:

- (1) factors related to the audit and auditors; and
- (2) factors related to the characteristics of the entity.

*Factors related to the features of audit and auditor* include audit fees, audit opinion, the auditor tenure and the auditor industry specialization.

Research shows that the audit fee is the most common reason for customers to change auditors ([Ettredge et al., 2007](#); [Brazel and Bradford, 2011](#); [Firth, 1999](#)), and companies change their auditor after receiving a conditional statement ([Hudaib and Cooke, 2005](#); [Firth, 1999](#)). Research shows that the provisions of the audit report condition has a negative effect on the stock price, so companies that receive the conditional report are more likely to change their auditor ([DeAngelo, 1981](#)). The main concern is to reduce auditor independence by increasing the auditor tenure. Therefore, to limit audit tenure, an audit firm mandatory turnover policy is adopted. In addition, some studies have shown that audit quality is improved by increasing tenure ([Ghosh and Moon, 2005](#)). As a result, there are different views about the auditor tenure, so we expect the auditor change to have a negative or positive relationship with auditor tenure. In addition, the auditor change occurs when the auditor is not an industry expert ([Landsman et al., 2009](#)). Therefore, we expect a negative relationship between the auditor change and the auditor industry specialization.

*Factors related to the characteristics of the entity* include return on assets (ROA), the firm loss, financial leverage, company growth, accruals and company size.

According to [Landsman et al. \(2009\)](#) and [Mande and Son \(2013\)](#), to control the financial risk, variables of ROA, firm loss and financial leverage are used. More profitable firms have less

financial risk for auditors, so we expect that companies with less profit and loss are more likely to change auditors. Also, in companies with greater financial leverage, financial risk is increased, and we expect the auditor change to increase. Clients who purchase subunits successively, develop new markets or obtain high growth can conclude new contracts because new sectors and managers joined them (Williams, 1988). It is, therefore, possible that the high-growth companies change auditors more. Companies that have high negative discretionary accruals are more motivated to dismiss the current external auditor to find a successive external auditor (Defond and Subramanyam, 1998). As such, it is expected that the change auditor is negatively correlated to discretionary accruals. Given that the auditor change cost is more for large enterprises (DeAngelo, 1981) we expect the auditor change to be negatively related to firm size. Control variables are defined as following:

The auditor's opinion (*MODOP*): 1 if the auditor's opinion is modified, otherwise 0.

Auditor tenure (*TENURE*): the natural logarithm of the year that auditor is present at company as external auditor.

Audit fees (*LNAF*): the natural logarithm of audit fees (following Mande and Son, 2013).

Industry specialist auditor (*EXPERT*): auditors' market share is calculated as the total assets of all clients of a special audit firm in a particular industry, divided by the total assets of clients in the industry. In addition, the institutions are considered the industry experts whose market share is more than  $[1.2 \times (1/\text{firms in an industry})]$  (in accordance with Palmrose, 1988; Etemadi et al., 2009). 1 if the auditor is an industry expert and otherwise, 0.

Return on assets (*ROA*): the ratio of net income to total assets is calculated.

Loss (*LOSS*): 1 if the company has losses and otherwise, 0.

Leverage (*LVRG*): ratio of long-term debt to total assets is calculated.

Firm growth (*GROWTH*): Percentage of change in sales (sales of the current year minus the sales of last year divided by the sales of the previous year) is calculated.

Firm size (*SIZE*): natural logarithm sale.

Accruals (*DA*): in this study, to measure the accruals following Kothari et al. (2005). First, accruals are obtained using the Jones model. Then, we match the observation based on the year-firm for a company from the same industry in the same year, which has the nearest ROA. Accruals are calculated by considering the difference between DA (before performance-based adjustment) and adjusted DA of return on assets.

#### 4. Data analysis

First, the descriptive statistics of collected data have been explained. When a mass of quantitative data is collected for research, their organization and summarization are necessary so that it is significantly understandable. Descriptive statistic methods are used for this purpose. In general, the purpose of descriptive statistics is identification of studied variables and summarizing the collected data.

##### 4.1 Descriptive statistics

According to Table II, 21 per cent of all observations (158 of 735 cases) have attempted to change their auditor during the period of study. From the 158 auditor changes, 96 are optional (61 per cent) and 62 cases mandatory changes (39 per cent). The most audit optional changes were in 2009 and 2010 and were reduced from 2012, which were probably due to the legal requirements (the mandatory change of audit firms every four years).

As shown in Table III, 457 out of 735 observations have restated their financial statements. In addition, in these tables, the number of auditor optional changes has been presented. The total number of auditor optional changes in the following year the financial restatements were 64 cases. It is obvious that in 2012, 67 cases had financial restatements, and that three cases

changed their auditor in 2013. Most of the auditor changes were in 2010 and, that in 2009, 62 cases had financial restatements out of which 14 changed their auditor in 2010. In 2011, 71 cases had financial restatements, out of which 7 cases changed their auditors in 2012.

Descriptive findings from the survey, such as mean, median, standard deviation, minimum and maximum observations, are presented in Table III.

In Table IV, given the proximity of the mean and median in most of the variables, it can be stated that all variables are properly distributed. In addition, Table V shows that 58

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	2008	2009	2010	2011	2012	2013	2014	Total
Auditor optional change	16	19	20	13	11	7	10	96
Auditor mandatory change	...	...	...	...	11	37	14	62
Total auditor change	16	19	20	13	22	44	24	158

**Table II.** Frequency distribution of auditor switching for each year

Year (t)	2008	2009	2010	2011	2012	2013	2014	Total
Important financial restatement (t-1)	67	60	62	66	71	67	64	457
Optional changes of the auditor (t)	12	12	14	8	7	3	8	64

**Table III.** Frequency distribution of financial restatement and auditor change in restatement companies for each year (number of observations: 457 year-company)

Variables	Mean	Median	SD	Least observation	Most observation
RESTAMT	-0.011	-0.004	0.026	-0.307	0.088
Lnadjustment (million rials)	6.050	7.450	3.721	0.000	13.051
<i>Control variables</i>					
LNAF (million rials)	5.899	5.860	0.773	2.710	8.900
TENURE (year)	1.352	1.390	0.957	0.000	3.09
ROA	0.115	0.100	0.118	-0.440	0.640
LVRG	0.091	0.060	0.105	0.000	1.040
GROWTH	0.195	0.160	0.384	-0.830	5.210
SIZE (million rials)	12.66	12.65	1.295	8.90	17.81
DA	-0.005	0.000	0.220	-1.096	1.096

**Table IV.** Descriptive statistics of research variables

Variables	Value	frequency (1)	(%)
Auditor industry specialization	EXPERT	348	0.47
Auditor's opinion (modified)	MODOP	429	0.58
Number of observed loss	LOSS	62	0.08
Non-big audit firms (with the criteria a minimum of five partners)	NONBIG	445	0.60
Non-big audit firms (audit organization = 0)	NONBIG	571	0.78
Governance index	GOV	527	0.72
Chief executive officer (CEO) change	CEO_TO	199	0.27

**Table V.** Frequency of number 1 relating to dummy variables of model (total observations: 735 year-company)

per cent of firms have received a modified audit report during the studied period, 8 per cent were loss and 47 per cent by audited industry expert organizations.

**5. Hypothesis testing**

In this study, dummy dependent variable, the logistic regression is used. R software is used for data analysis. Akaike information criterion (AIC) of three models of General Logistics Systems (GLS) panel models with fixed and random effects will be compared. AIC is a measure of the relative quality of statistical models for a given set of data. AIC estimates the quality of each model, relative to each of the other models. Hence, AIC provides a means for model selection. Lower Akaike value indicates that the model is better.

*5.1 First hypothesis testing*

To determine the appropriate model, the AIC value is calculated. Lower Akaike statistics indicate that the model is better. Using AIC index, three models of GLS panels with fixed and random effects are compared.

Because the amount of AIC in the panel model with random effects is lower (Table VI), using the panel model with random effects is preferable to other methods; so a panel model with random effects is used to test *H1*.

The results of explaining data related to hypothesis analysis are given in Table VII.

According to financial restatement (REST) whose factor is  $B_1$ , significance of first hypothesis is investigated.

In Table VII, it is obvious that *p*-value of the independent variable of financial restatement is equal to 0.418, which is higher than 0.05; therefore, *H1* is rejected. The results show there is no significant relationship between the changing auditor and financial restatements. In other words, financial restatements do not cause auditor

**Table VI.**  
AIC value in  
Model (1)

GLS	AIC index	
	Fixed effects	Random effects
571.116	571.116	567.180

**Table VII.**  
Results of the  
estimation of model  
coefficients and  
significance test of  
financial restatement  
and changing the  
auditor

Variables	Coefficients	SE	Test statistics	<i>P</i> -value
Intercept	0.373	1.771	0.211	0.833
REST	0.218	0.269	0.810	0.418
MODOP	-0.117	0.291	-0.402	0.687
TENURE	0.009	0.214	0.044	0.965
LNAF	-0.402	0.214	-1.878	0.060
EXPERT	-0.496	0.300	-1.651	0.099
ROA	-0.240	1.427	-0.168	0.867
LOSS	0.019	0.527	0.035	0.972
LVRG	1.693	1.187	1.427	0.154
GROWTH	0.111	0.288	0.386	0.700
SIZE	-0.022	0.159	-0.137	0.891
DA	-0.024	0.568	-0.042	0.967

changes in the next year. These results are consistent with findings of Agrawal and Cooper (2007). But the findings do not match research results of Hennes *et al.* (2012) and Mande and Son (2013).

5.2 Second hypothesis testing

To determine the appropriate model, the AIC value is calculated. Lower Akaike statistics indicate that the model is better. Using the AIC index, three models of GLS, fixed and random effects are compared.

Because the AIC value in GLS and panel models with fixed effects is less than random effects and GLS, and panel models with fixed effects have identical AIC value, the error rate of GLS and panel models with fixed effects is calculated as 0.87 and 0.34, respectively; hence, given that the error rate of the panel model with fixed effects is less, it is preferable to use the panel model with fixed effects to GLS; so, to test *H2*, a panel model with fixed effects is used (Table VIII).

The results of examining the data related to hypothesis analysis are given in Table IX.

Due to the variable of the severity of the financial restatement (RESTAMT) with a factor of  $B_1$ , significance of second hypothesis is investigated.

*P*-value related to the independent variable of the severity of financial restatement (RESTAMT) is equal to 0.239, which is higher than 0.05, so *H2* is rejected. As the severity of a restatement does not increase, the auditor change in the following year of restatement also does not increase. These findings do not match with results of research conducted by Hennes *et al.* (2013) and Mande and Son (2013).

GLS	AIC index	
	Fixed effects	Random effects
384.415	384.415	385.678

Table VIII. Value of AIC in Model (2)

Variables	Coefficients	SE	Test statistics	<i>P</i> -value
Intercept	-1.112	1.595	-0.697	0.486
RESTAMT	-4.571	3.885	-1.177	0.239
MODOP	0.068	0.310	0.220	0.826
TENURE	-0.237	0.157	-1.514	0.130
LNAF	-0.278	0.217	-1.285	0.199
EXPERT	-0.043	0.312	-0.138	0.890
ROA	0.963	1.562	0.617	0.537
LOSS	0.162	0.540	0.301	0.764
LVRG	1.038	1.319	0.787	0.431
GROWTH	-0.665	0.488	-1.363	0.173
SIZE	0.078	0.142	0.547	0.584
DA	0.036	0.623	0.057	0.954

Table IX. Results of the estimation of model coefficients and significance test between severity of financial restatement and changing auditor

Note: Number of observations: 457 years-company

5.3 Third hypothesis testing

Using the AIC index, three models of GLS, panel with fixed and random effects has been compared.

Table X shows the amount of AIC in the panel model with random effects is lower; it is preferable to use the panel model with random effects to other methods, and so to test *H3*, the panel model with random effects is used.

The results of examining data related to hypothesis analysis are given in Table XI.

Considering the simultaneous effect of financial restatement and corporate governance (*GOV* × *REST*) with a factor of  $B_3$ , the significance of the third hypothesis is investigated.

*P*-value related to the simultaneous effect of financial restatement and corporate governance is more than 0.05. Therefore, the third hypothesis is rejected. Restatement companies with stronger corporate governance compared to other companies are not changing their auditors more in the following year.

This finding does not match the results found by *Asthana et al. (2010)* and *Mande and Son (2013)*, when they expressed that high-quality corporate governance means a higher likelihood of a change of auditor in the companies contained within the financial statement restatement. One of the reasons for non-compliance can be related to corporate governance systems within specific countries. Corporate governance systems have specific focuses in various countries, including law, capital market characteristics, culture, history and industry organizations, and accordingly, there are significant differences to how companies are run globally (*García-Meca and Sánchez-Ballesta, 2009*).

**Table X.**  
AIC value in Model  
(3)

GLS	AIC index	
	Fixed effects	Random effects
574.563	574.563	569.768

**Table XI.**  
Simultaneous effect  
of financial  
restatement and  
corporate governance  
with changing  
auditor

Variables	Coefficients	SE	Test statistics	<i>P</i> -value
Intercept	0.892	1.890	0.472	0.637
REST	0.135	0.502	0.269	0.788
GOV	-0.438	0.521	-0.842	0.400
<i>REST</i> × <i>GOV</i>	0.106	0.592	0.179	0.858
MODOP	-0.147	0.297	-0.497	0.620
TENURE	0.053	0.221	0.242	0.809
LNAF	-0.388	0.217	-1.785	0.074
EXPERT	-0.538	0.306	-1.757	0.079
ROA	-0.213	1.438	-0.148	0.882
LOSS	-0.043	0.535	-0.080	0.936
LVRG	1.918	1.217	1.576	0.115
GROWTH	0.101	0.290	0.349	0.727
SIZE	-0.050	0.165	-0.302	0.763
DA	-0.060	0.573	-0.105	0.917



5.4 Fourth hypothesis testing

Using the AIC index, three models of GLS, panel model with fixed and random effects has been compared.

Because the AIC value in the panel model with random effects is lower, it is preferable to use the panel model with random effects to other methods; so to test the fourth hypothesis, a panel model with random effects is used (Table XII).

The results of examining data related to hypothesis analysis are given in Table XIII. Considering the simultaneous effect of financial restatement and audit firm size (NONBIG × REST) with a factor of B<sub>3</sub>, the significance of fourth hypothesis is investigated.

P-value related to the simultaneous effects of financial restatement and if the audit firm size is more than 0.05, so therefore the hypothesis is rejected. Despite the insignificance, the coefficients on REST × NONBIG are negative, which indicates that auditor change after a restatement is not more likely for the non-big auditors. P-value is related to the non-big auditor (NONBIG), which is less than 0.05, and the coefficient on NONBIG is significantly positive.

In addition, to measure audit firm size, the audit organization is considered a big audit firm and other audit institutions a non-big audit firm. First, using the AIC, three models of GLS, a panel with fixed and random effects has been compared (Table XIV).

GLS	AIC index	
	Fixed effects	Random effects
568.481	568.481	564.580

Table XII. AIC value in Model (4)

Variables	Coefficients	SE	Test statistics	P-value
Intercept	-1.447	1.915	-0.755	0.450
REST	1.089	0.615	1.770	0.077
NONBIG	1.407	0.624	2.254	0.024
REST × NONBIG	-1.065	0.680	-1.566	0.117
MODOP	-0.196	0.295	-0.666	0.505
TENURE	0.076	0.221	0.344	0.731
LNAF	-0.324	0.219	-1.480	0.139
EXPERT	-0.427	0.303	-1.412	0.158
ROA	-0.270	1.423	-0.190	0.850
LOSS	-0.039	0.533	-0.074	0.941
LVRG	1.982	1.213	1.634	0.102
GROWTH	0.019	0.291	0.065	0.949
SIZE	-0.004	0.159	-0.022	0.982
DA	-0.053	0.570	-0.093	0.926

Table XIII. Simultaneous effect of financial restatement and auditing firm size (with number of partners) and changing auditor

GLS	AIC index	
	Fixed effects	Random effects
567.224	567.224	561.774

Table XIV. AIC value in Model (4)

**Table XV.**  
Simultaneous effect of financial restatement and auditing firm size (with big auditing firm and other non-big firms) and changing auditor

Variables	Coefficients	SE	Test statistics	P-value
Intercept	-2.364	2.105	-1.123	0.261
REST	0.776	0.955	0.813	0.416
NONBIG	2.026	0/894	2.265	0.024
REST × NONBIG	-0.634	0.994	-0.637	0.524
MODOP	-0.256	0.304	-0.844	0.399
TENURE	0.198	0.232	0.852	0.394
LNAF	-0.269	0.230	-1.171	0.242
EXPERT	-0.181	0.314	-0.577	0.564
ROA	-0.151	1.467	-0.103	0.918
LOSS	0.019	0.540	0.035	0.972
LVRG	2.222	1.251	1.776	0.076
GROWTH	0.052	0.291	0.179	0.858
SIZE	-0.033	0.168	-0.197	0.844
DA	-0.077	0.585	-0.131	0.896

Because the AIC value in the panel model with random effects is lower, it is preferable to use the panel model with random effects to other methods; so to test the fourth hypothesis, a panel model with random effects is used.

The results of examining data related to analysis of this hypothesis are shown in [Table XV](#).

P-value related to the simultaneous effects of financial restatement and if the size of the audit firm is more than 0.05; so in companies that are restating, non-big auditor changes are no more likely than a big auditor changes. Results testing the hypothesis do not match the results found by [Hennes et al. \(2012, 2013\)](#). One of the reasons for non-compliance could be related to the fact that after the change of the auditor, a company must select a new auditor, and to select the auditor costs, including time spent on drafting a proposal, are imposed.

*5.5 Fifth hypothesis testing*

Using the AIC index, three models of GLS, a panel model with fixed and random effects has been compared ([Table XVI](#)).

Because the AIC value in the panel model with random effects is lower, it is preferable to use the panel model with random effects to other methods; so the panel model with random effects is used to test *H5*.

The results of examining data related to the analysis of this hypothesis are given in [Table XVII](#).

**Table XVI.**  
AIC value in Model (5)

GLS	AIC index	
	Fixed effects	Random effects
572.070	572.070	569.141

**Table XVII.**  
Simultaneous effect  
of financial  
restatement and CEO  
changing with  
auditor change

Variables	Coefficients	SE	Test statistics	P-value
Intercept	0.386	1.733	0.223	0.824
REST	0.037	0.303	0.121	0.904
CEO.To	-0.239	0.501	-0.476	0.634
<i>REST × CEO.To</i>	0.672	0.590	1.140	0.254
MODOP	-0.112	0.287	-0.391	0.696
TENURE	-0.026	0.209	-0.125	0.901
LNAF	-0.386	0.213	-1.816	0.069
EXPERT	-0.477	0.298	-1.601	0.109
ROA	-0.194	1.407	-0.138	0.890
LOSS	0.010	0.524	0.019	0.985
LVRG	1.782	1.173	1.520	0.129
GROWTH	0.138	0.288	0.480	0.631
SIZE	-0.023	0.155	-0.146	0.884
DA	-0.039	0.563	-0.069	0.945

On the basis of the simultaneous effect of financial restatement and CEO change ( $REST \times CEO\_TO$ ) with a factor of  $B_3$ , the significance of  $H5$  is investigated.

$P$ -value related to the simultaneous effect of the financial restatement and the independent variable of the CEO change is higher than 0.05, so the hypothesis is not confirmed; then, companies restating simultaneously with a CEO change are not more likely to change their auditor. In keeping with the results, Hennes *et al.* (2013) suggested that a weak positive relationship between the CEO change and auditor dismissal does not match. Accordingly, the restating companies improve the quality of financial reporting to the board of directors and CEO change (Desai *et al.*, 2006; Srinivasan, 2005) after the restatements. One of the reasons for this non-compliance is that the company may only change the CEO and not change the auditor simultaneously.

### 5.6 Additional tests

This test examines the annual adjustments due to error correction and change in the auditing procedure by changing the auditor.

Because the dependent variable in additional tests is the auditor change and three states are considered for this change, including lack of change, optional change and mandatory change, multinomial logistic regression model should be used. In multinomial logistic regression, we examine every level compared to the first level:

$$\begin{aligned}
 ALLAUDITOR\ CHANGE_t = & B_0 + B_1PPA_{t-1} + B_4MODOP_{t-1} + B_5TENURE_{t-1} \\
 & + B_6LNAF_{t-1} + B_7EXPERT_{t-1} + B_8ROA_{t-1} \\
 & + B_9LOSS_{t-1} + B_{10}LVRG_{t-1} + B_{11}GROWTH_{t-1} \\
 & + B_{12}DA_{t-1} + B_{13}SIZE_{t-1} + \varepsilon_{it}
 \end{aligned}$$

ALLAUDITOR CHANGE: auditor change may be mandatory or optional. If the company changes its auditor (optional) is 1, and if it changes its auditor after four years (mandatory) 2; otherwise it is 0.

PPA: the annual adjustment results from the change in accounting procedure and the error correction. If the company has annual adjustments resulting from the correction of

error is 1, if the annual adjustment is due to changes in procedures and error correction is 2, and otherwise 0.

To determine the appropriate model, the AIC value is calculated. Using the AIC index, three models of GLS and the panel model with fixed and random effects has been compared.

According to [Table XVIII](#), the AIC value in the panel model with fixed effects is lower; it is preferable to use the panel model with fixed effects to the other two methods.

The results of examining data related to analysis of this hypothesis using a panel test of fixed effects are described in [Tables XIX](#) and [XX](#). In this test, two levels of auditor change (optional and mandatory) compared the lack of auditor change.

*P*-value of the independent variables is more than 0.05, so the restatement due to error correction PPA (1) and due to changes in procedures and error correction PPA (2) do not cause optional and mandatory auditor changes in the year following the financial restatements.

To investigate the amount of annual adjustments, the following model is used:

$$\begin{aligned}
 ALLAUDITOR\ CHANGE_t = & B_0 + B_1Lnadjustment_{t-1} + B_4MODOP_{t-1} \\
 & + B_5TENURE_{t-1} + B_6LNAF_{t-1} + B_7EXPERT_{t-1} \\
 & + B_8ROA_{t-1} + B_9LOSS_{t-1} + B_{10}LVRG_{t-1} \\
 & + B_{11}GROWTH_{t-1} + B_{12}DA_{t-1} + B_{13}SIZE_{t-1} + \varepsilon_{it}
 \end{aligned}$$

**Table XVIII.**  
AIC value in models

	GLS	AIC index Fixed effects	Random effects
AIC value in models	952.217	820.608	938.836

**Table XIX.**  
Measuring the  
dependent variable of  
the auditor optional  
switching to his lack  
of change

Variables	Coefficients	SE	Test statistics	<i>P</i> -value
Intercept	-1.218	1.427	-0.854	0.393
PPA (1)	0.395	0.296	1.337	0.181
PPA (2)	1.110	0.882	1.258	0.208
MODOP	-0.016	0.249	-0.062	0.950
TENURE	-0.251	0.136	-1.845	0.065
LNAF	-0.296	0.200	-1.481	0.139
EXPERT	-0.621	0.274	-2.271	0.023
ROA	0.138	1.227	0.113	0.910
LOSS	0.199	0.476	0.418	0.676
LVRG	1.837	1.023	1.796	0.072
GROWTH	0.127	0.273	0.466	0.641
SIZE	0.092	0.124	0.745	0.456
DA	-0.012	0.531	-0.022	0.982
(YEAR) 2008	0.330	0.385	0.857	0.391
(YEAR) 2009	0.434	0.388	1.118	0.264
(YEAR) 2010	-0.167	0.425	-0.394	0.694
(YEAR) 2011	-0.222	0.444	-0.500	0.617
(YEAR) 2012	-0.400	0.519	-0.771	0.441
(YEAR) 2013	-0.449	0.481	-0.934	0.350

Variables	Coefficients	SE	Test statistics	P-value
Intercept	-21.027	1695.067	-0.012	0.990
PPA (1)	-0.081	0.434	-0.187	0.852
PPA (2)	-17.547	4571.611	-0.004	0.997
MODOP	0.573	0.371	1.545	0.122
TENURE	1.579	0.254	6.219	0.000
LNAF	-0.720	0.278	-2.587	0.010
EXPERT	-1.596	0.455	-3.508	0.000
ROA	1.093	1.846	0.592	0.554
LOSS	-0.682	0.790	-0.864	0.388
LVRG	0.120	1.647	0.073	0.942
GROWTH	-0.322	0.554	-0.581	0.561
SIZE	0.157	0.170	0.922	0.357
DA	0.262	0.795	0.329	0.742
(YEAR) 2008	0.188	2378.137	0.000	1.000
(YEAR) 2009	0.250	2374.377	0.000	1.000
(YEAR) 2010	0.035	2433.472	0.000	1.000
(YEAR) 2011	18.585	1695.066	0.011	0.991
(YEAR) 2012	20.784	1695.066	0.012	0.990
(YEAR) 2013	20.281	1695.066	0.012	0.990

**Table XX.**  
Measuring the  
dependent variable of  
the auditor  
mandatory switching  
to his lack of change

ALLAUDITOR CHANGE: auditor change may be mandatory or optional. If the company changes its auditor (optional), it is 1, and if it changes its auditor after four years (mandatory), 2, otherwise it is 0.

Lnadjustment: it is the natural logarithm of the annual adjustment absolute value.

To determine the appropriate model, the AIC value is calculated. Using the AIC index, three models of GLS, panel model with fixed and random effects have been compared (Table XXI).

Because the amount of AIC in the panel model with fixed effects is lower, using the panel model with fixed effects is preferable to the other two methods.

The results of examining data related to analysis of this hypothesis using a panel test with fixed effects are shown in Tables XXII and XXIII. In this test, two auditor change levels (optional and mandatory), as compared to lack of auditor change, are examined.

P-value is related to the variable of annual adjustments greater than 0.05; as such the annual adjustments do not cause mandatory and optional change of the auditor in the coming year after financial restatement.

## 6. Conclusion

In this study, the effect of financial restatement following on a year after an auditor change has been discussed. If the restatement is due to mistakes that are considered an audit failure, the client is expected to change their auditor after the financial restatements.

GLS	AIC index	
	Fixed effects	Random effects
949.598	818.353	935.455

**Table XXI.**  
AIC index value in  
models

**Table XXII.**  
Measuring the  
dependent variable of  
the auditor optional  
change to auditor  
lack of change

Variables	Coefficients	SE	Test statistics	P-value
Intercept	-0.754	1.417	-0.533	0.594
<i>Ladjustment</i>	0.050	0.035	1.420	0.155
MODOP	-0.050	0.249	-0.199	0.842
TENURE	-0.250	0.136	-1.835	0.067
LNAF	-0.296	0.199	-1.487	0.137
EXPERT	-0.618	0.272	-2.271	0.023
ROA	0.121	1.226	0.098	0.922
LOSS	0.149	0.476	0.312	0.755
LVRG	1.786	1.018	1.755	0.079
GROWTH	0.131	0.272	0.482	0.630
SIZE	0.059	0.126	0.467	0.640
DA	0.002	0.530	0.004	0.997
(YEAR) 2008	0.311	0.383	0.811	0.418
(YEAR) 2009	0.420	0.387	1.087	0.277
(YEAR) 2010	-0.164	0.424	-0.387	0.698
(YEAR) 2011	-0.221	0.444	-0.499	0.618
(YEAR) 2012	-0.422	0.517	-0.817	0.414
(YEAR) 2013	-0.445	0.480	-0.927	0.354

**Table XXIII.**  
Measuring the  
dependent variable of  
the auditor  
mandatory change to  
lack of auditor  
change

Variables	Coefficients	SE	Test statistics	P-value
Intercept	-21.020	1707.000	-0.012	0.990
<i>Ladjustment</i>	-0.010	0.050	-0.203	0.839
MODOP	0.576	0.370	1.554	0.120
TENURE	1.568	0.254	6.177	0.000
LNAF	-0.696	0.275	-2.531	0.011
EXPERT	-1.622	0.457	-3.552	0.000
ROA	1.147	1.838	0.624	0.532
LOSS	-0.657	0.790	-0.832	0.406
LVRG	0.216	1.644	0.131	0.896
GROWTH	-0.326	0.556	-0.587	0.557
SIZE	0.145	0.170	0.854	0.393
DA	0.201	0.792	0.253	0.800
(YEAR) 2008	0.198	2387	0.000	1.000
(YEAR) 2009	0.254	2382	0.000	1.000
(YEAR) 2010	0.032	2448	0.000	1.000
(YEAR) 2011	18.550	1707	0.011	0.991
(YEAR) 2012	20.790	1707	0.012	0.990
(YEAR) 2013	20.260	1707	0.012	0.991

The results of the hypotheses present that restatements do not lead to auditor changes, and as the severity of a restatement increases, an auditor change in the year following restatement also does not increase. In financial restating companies with strong corporate governance, the auditor change does not happen more than it does in other firms. In addition, in companies that are restating, non-big auditor changes are no more likely than big auditor changes. Companies restating simultaneously with CEO turnover do not offer a possibility of auditor change. Furthermore, multinomial logistic regression showed that the adjustments resulting from the correction of errors and changes in procedures and

the amount of adjustments do not cause auditor change in the following year. As such, the results have shown that the restatement is not an important factor in changing auditors in subsequent years.

Hypothesis test results correspond with the findings of [Agrawal and Cooper \(2007\)](#) in that no evidence has been found that the restatement companies are more likely to change their auditors. Findings do not match the research results of [Hennes et al. \(2012\)](#) and [Mande and Son \(2013\)](#). One of the reasons for non-compliance can be related to the costs and benefits associated with the change of the auditor. A replacement auditor may be useful to help restore the reputation capital ([Agrawal and Cooper, 2007](#)), but the higher the costs of replacing an auditor may outweigh the reasons for changing the auditor. Among other reasons, the possibility of the auditor failing increases during the first year due to inadequate training provided to the audit staff or because of low prices for new work.

Identifying factors that affect the change of auditors when making plans to strengthen auditor independence and regulations for transparency for the reasons behind changing auditors play an important role. With respect to the findings of this study, it is suggested that the Tehran Stock Exchange be involved in the formulation of laws and regulations relating to the disclosure of changes in auditors, and that it is necessary that legal measures be inserted into the clauses regarding auditor changes into the notes of financial or board reports.

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