

Auditor Switching in an Emerging Market for Auditor Services

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Abstract

We investigate the association between factors related to client and auditor characteristics and auditor switches by companies listed on the Tehran Stock Exchange (TSE) because government policy and recent regulatory changes resulted in a rapid increase in competition in the audit and capital markets. The regulatory changes, which occurred in 2001, brought about significant changes in the audit market leading to a substantial increase in the number of audit firms auditing listed companies and auditor switches. In addition, as part of government policy, there were substantial transfers of stock in Iranian companies from the public to the private sector, resulting in greater diffusion of shareholders and increased information asymmetry. These changes create a natural experiment to examine the effects of increased auditor competition, changes in agency risks due to privatization, and other factors that impact on auditor selection. We find that increased competition, auditor-client alignment, changes in CEO, earnings management, and qualified audit opinions due to auditor-management conflicts are significantly associated with auditor switching by companies listed on the TSE. The findings support the premise that increased competition in the audit market increases auditor switching. Prior research has only examined conditions of decreasing competition in the audit market so our study makes a valuable contribution in this regard. We do not find a significant relation between privatization and auditor switching. However, very few of the companies in our sample were transferred out of government control during our sample period. We also did not find a significant relation between ownership concentration and auditor switching. The high levels of government ownership and control in Iranian companies may have influenced this result.

KEYWORDS: Auditor switching, audit markets, competition

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1. Introduction

We investigate the association between factors related to client and auditor characteristics and auditor switches by companies listed on the Tehran Stock Exchange (TSE). We examine auditor switching in Iran because government policy and recent regulatory changes resulted in a rapid increase in competition in the audit and capital markets. These changes create a natural experiment to examine the effects of increased auditor competition, changes in agency risks due to privatization, and other factors that impact on auditor selection. These changes are expected to increase agency costs and signaling incentives for TSE listed companies, which we link to incentives for auditor switching.

The regulatory changes allowed a significant increase in the number of private sector audit firms and removal of the government auditor monopoly over the audit of government controlled companies listed on the TSE. The regulatory changes, which occurred in 2001, brought about significant changes in the audit market leading to a substantial increase in the number of audit firms auditing listed companies and auditor switches.

The Economic, Social, and Cultural Development Plan for 2000 – 2004 generated growth in the number of listed companies from 296 in 1999 to 386 in 2003. The growth came from the listing of government controlled companies as part of the government's privatization policy and the listing of private sector companies. There were substantial transfers of stock in Iranian companies from the public to the private sector, resulting in greater diffusion of shareholders and increased information asymmetry. The changes in ownership from government to private investors changed shareholders' incentives and the mandates given to managers. Before the changes, the objectives of government controlled companies included implementing government policies (e.g., providing employment and providing cheaper goods and services) as well as earning profits. The privatized companies no longer had this range of complexity of objectives and were therefore free to concentrate on profit seeking (Komijani, 2003). Privatization also induced substantial changes in management of the listed companies, which we suggest are different from changes in management in other stock markets. These

changes have significant implications for the behavior of companies and managers, and auditor choice.¹

Prior to implementation of the privatization policy, private banks were not allowed, and government controlled companies borrowed from government owned banks. As part of the privatization policy, private sector banks were allowed and government controlled companies were able to borrow from these private banks. This created opportunities for the companies to change their capital structure by using private sector debt, thus increasing the agency costs associated with opportunities for wealth transfers from debt holders to shareholders.

The increased agency risks arising from changes in ownership and the emergence of private sector debt holders may have affected incentives for signaling through choice of higher quality auditors to reduce agency costs.

Auditor switching can also have negative connotations. It has been linked to managerial opportunism (DeFond and Subramanyam, 1998), reduced auditor independence and audit quality (Beams and Killough, 1970, Shockley, 1981, Beattie and Fearnley, 1998a), and a reduction in public confidence in the audit function, which may decrease the flow of capital into capital markets and increase the cost of capital for companies (Knapp and Elikai, 1988). Shockley (1981) and Beattie and Fearnley (1998b) argue that increased competition between auditors impacts on the opportunities and incentives for companies to change auditors because it results in tendering, audit fee discounting, low-balling and opinion-shopping. Increased competition may also reduce auditors' independence as they know that there are other audit firms willing to accept the client if a client becomes dissatisfied (Beams and Killough, 1970). However, to the best of our knowledge, no study has examined how changes in competition in the audit market affect auditor switches.

Prior research on auditor switching has focused on mature audit and capital markets such as the United States (US), United Kingdom (UK), and Australia (Woo and Koh, 2001). Competition in these markets is characterized by relatively stable levels of competition, but increasing concentration (and implied potential reduced competition) in the large client sector that is dominated by big international accounting firms (e.g., Gilling and Stanton, 1978, Pong, 1999, Wolk et al., 2001). The Iranian audit market is different in that it is an emerging market with limited shareholder protection. Iranian auditors are not affiliated with international audit

¹ Reasons for the government's privatization policy included concerns about the performance of public sector companies, inefficiencies, mismanagement and squandering of finances, the creation of monopolies, and a lack of competition in public sector companies (*EghtesadeIran*, 2002).

firms, there is rapid growth in audit market competition as evidenced by a 100 percent growth in the number of auditors engaged by companies listed on the TSE from 2000-2003.² In addition, Iranian code law does not expose auditors to litigation risk other than prosecution by the State under criminal provisions, which eliminates the insurance hypothesis (see Wallace, 1987) as an explanation for auditor switching.

Emerging markets often have less protection for shareholders and creditors (Porta et al., 1998) and are less efficient than developed markets (Walczak, 1999). As a consequence, the type and the level of conflicts of interest are different from those in developed markets and, therefore, the reasons for auditor changes may be different (Williams, 1988a).³ For example, in emerging markets the risk of expropriation of minority shareholders by large shareholders is higher than in developed markets (Claessens et al., 2000 , Claessens and Fan, 2002). In an emerging market such as the TSE, the role of auditors as a means of reducing conflicts of interest is potentially more important than is the case in developed markets. Consequently, investigating the factors that affect auditor changes, which can impair auditor independence and ultimately audit quality, becomes very important.

Although researchers have provided theoretical arguments on the effect of competition on auditor switches, no prior research has empirically examined the effect of increased competition on auditor switches. In addition, no research has examined auditor switching in a market characterized by substantial rapid increases in agency costs and signaling incentives. This study contributes to the literature on auditor switching by extending it to an emerging market characterized by rapid growth in audit competition, changes in ownership and control, demand for capital and the emergence of private sector debt.

The results of this study may have implications for regulators of other emerging markets where similar structural changes are being contemplated, or who are concerned with the implications of auditor competition and switching for confidence in financial reporting in the absence of strong regulatory oversight. The analysis that relates auditor switching to management changes, incentives for managerial opportunism and signaling, and capital structure is of potential interest to policymakers and researchers concerned with the role of audits in the capital markets.

² The 100% increase is based on our sample data which comprises 88% of the companies listed on the TSE.

³ Gul and Qiu (2002) stated that in the countries with weak legal protection, enforcement and corporate governance agency conflicts are higher.

2. Institutional environment

Iranian Trade law requires listed companies to appoint a certified auditor (Article-144) who must be selected from those accredited auditors authorized by the Economic Ministry. The law requires the election, by the shareholders, of an auditor once a year at the annual general meeting. Regulatory changes that occurred in Iran had the effect of changing which auditors were authorized by the Economic Ministry.

The TSE was established in 1967 and grew to 105 listed companies at the time of the Islamic Revolution in February 1979. Following the revolution, all banks and insurance companies and many heavy industry companies were fully nationalized. Many other companies were not fully nationalized but were transferred to government control when private sector owners abandoned or forfeited their interests in companies and through the government-owned banks acting on debt defaults. All audit functions for these government controlled companies were transferred to government auditors, culminating with the establishment of the Iranian Auditing Organization (IAO) in 1987. The TSE continued with limited trading (mainly in government bonds) until 1983 (with the introduction of anti-usury laws) and became virtually inactive with the advancement of the war with Iraq, which ended in 1988.

To stimulate economic recovery, the Iranian government implemented a privatization policy to transfer ownership of public sector companies to the private sector through a series of five-year Plans (Davani, 2003, TSE, 2003). The first five-year Plan (1989-1993) required the government to transfer ownership of nationalized and state industrial units (excluding strategic industries) to private sector shareholders (Roudaki, 1996, Abadi, 1995). The number of companies listed on the TSE grew from less than 60 prior to 1990 to 201 by 1995. During that time period, and the number of shares traded increased significantly, but with high volatility in the share prices (Davani, 2003). The second five-year Plan (1995-1999) was a continuation of the first Plan (Amirahmadi, 1996) with the number of TSE listed companies increasing to 296 in 1999.

The IAO was unable to service the variety of government controlled entities and was not suited to auditing the increasing number of profit-seeking companies post-1989 (Moulkaraei, 2005). As a result of regulatory changes in 1993, certified public accountants were legally allowed to practice in the public sector audit market but this was ineffective because the designated certifying agency, the Iranian Association of Certified Public Accountants (IACPA), was not established until 2001. Although the audit market for TSE listed companies was dominated by the IAO during 1993-2001, there were private sector

auditors (certified by the Economic Ministry) with non-government controlled TSE listed clients. After the establishment of the IACPA in 2001, TSE listed companies have to be audited by members of the IACPA (Davani, 2003). This means that a TSE listed company can now choose either a private sector auditor or a government auditor, regardless of whether the company was government controlled.⁴

In addition to the legal requirement for listed companies to have their financial reports audited, there are also theoretical sources (agency and signaling), which generate demand for different levels of audit quality. All of these different sources are examined in detail in the following sections.

3. Incentives for auditor switching

The institutional changes in Iran provided incentives for companies to switch auditors and the changes in the audit market provided opportunities to switch auditors. The potential incentives include agency conflicts in the companies (Jensen and Meckling, 1976, Chow, 1982) or signaling quality by adding credibility to the financial statements (Jensen and Meckling, 1976, Ng, 1978, Williams, 1988b). Auditing can reduce agency risks created by conflict of interests between: managers and shareholders (Jensen and Meckling, 1976, Watts and Zimmerman, 1983); small and large shareholders (Claessens and Fan, 2002, Fan and Wong, 2005); and shareholders and debt holders (Jensen and Meckling, 1976, Chow, 1982, Watts and Zimmerman, 1986). This is attributed to the capacity of auditing to increase the credibility of financial statements. Credible financial statements both reduce information asymmetry between shareholders and managers (Healy and Palepu, 2001) and may affect debt contracts (Smith and Warner, 1979). Therefore, the nature and extent of potential benefits are contingent on capital structure and ownership. This can include the proportions of debt vs equity funding, decisions to raise additional funds, ownership concentration and the extent of government and insider ownership.

Given the emerging nature of the audit market in Iran and that the traditional international audit firms do not operate in Iran, we cannot use the traditional size based proxy for audit quality. Therefore, our hypotheses are restricted to auditor switching rather than switching between auditors of different quality.

Increased Competition in Audit Market

⁴ The IAO and other government auditors are certified members of the IACPA.

Shockley (1981) and Beattie and Fearnley (1998b) argue that increased competition for audit clients increases the opportunities and incentives for companies to change auditors. The establishment of the IACPA in 2001 increased competition between auditors and provided more opportunity for TSE listed companies to change auditors. In the Iranian context, the audit market went from a market dominated by the IAO to a market with many more auditors potentially offering a wider range of quality and services. This provided greater opportunity for companies to select an auditor that was a better match to their needs. Therefore, the competition hypothesis is:

H1 There is more auditor switching after the establishment of the IACPA in 2001.

Privatization of Government Controlled Companies

A component of the Third Plan was to transfer the government's shares in TSE listed companies to the public. The objectives of the privatized companies changed as a result of privatization in that such companies no longer had the objective of implementing government policy (Komijani, 2003). Privatized companies may want to signal their increased emphasis on investor interests by changing to private sector auditors.

Government controlled companies were known to be mismanaged and poor performers (*EghtesadeIran*, 2002). Companies may change auditors after privatization to signal that they are no longer government controlled companies and that they no longer have these problems.

Privatization may also create a demand for a different type of auditor. For example, privatized companies have less need for compliance and probity audits. Although the acquisition of non-audit services is not disclosed by Iranian companies, privatization may change the demand for non-audit services, increasing the possibility of auditor switching (Burton and Roberts, 1967, Schwartz and Menon, 1985). If public sector auditors are perceived as less suited to providing non-audit services or auditing a private sector entity because of their government policy orientation, the company may switch auditors after privatization. Based on the above discussion, the privatization hypothesis is:

H2 Companies are more likely to switch auditors in the year after privatization.

Auditor-Client Alignment

Companies tend to select or retain auditors that meet their needs (Burton and Roberts, 1967, Shockley, 1981, Addams and Davis, 1994, Beattie and Fearnley, 1998b). We argue that alignment between auditor type and client type reduces auditor switching because those companies more likely to have an auditor that meets their needs. Alignment exists when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor. Public sector auditors are best suited to auditing public sector entities because of their government accounting framework orientation and experience with such entities. Government controlled TSE listed companies may prefer to stay with a public sector auditor because they may better meet their needs. Private sector auditors are more specialised in auditing private sector companies, in which financial reporting is mainly affected by accounting standards whereas in public sector the financial reporting is mainly affected by stated government rules and regulations (Moulkaraei, 2005). Private sector auditors may have also developed economies in regulatory compliance and established progressive relationships with brokers and investment bankers. Therefore, privatized companies can take advantage of private auditors' experience and reputation. If a privatized company has a public sector auditor, it may switch to private sector auditors because public sector auditors are less suited to auditing a private sector entity. Where there is alignment, auditor switching is less likely to occur. The auditor-client alignment hypothesis is:

H3 Companies with auditor-client alignment are less likely to switch auditors.

Ownership Concentration

When ownership is highly concentrated, the large shareholders are more able to monitor management (Jensen and Meckling, 1976, Demsetz, 1983, Jensen, 1993, Shleifer and Vishny, 1997) and management discretion over accounting policy is more constrained (Piot, 2001). This suggests that large shareholders are less likely to demand a higher level of audit quality. Prior studies (Francis and Wilson, 1988, Woo and Koh, 2001) indicate that highly concentrated ownership is negatively associated with switching to a higher quality auditor. Therefore, the ownership concentration hypothesis is:

H4 Concentrated ownership is negatively associated with auditor switching.

Changes in Management

New management may switch to an auditor with whom they have a preferred working relationship (Williams, 1988a, Hudaib and Cooke, 2005) or a personal relationship (Beattie and Fearnley, 1998b, Seabright et al., 1992, Addams and Davis, 1994). New management may also switch to an auditor who is more accommodating with respect to their choice and application of accounting policies (Schwartz and Menon, 1985). The results of prior studies of the association between management changes and auditor switches are inconsistent. Some studies (Burton and Roberts, 1967, Carpenter and Strawser, 1971, Beattie and Fearnley, 1995 and 1998b, Woo and Koh, 2001, Hudaib and Cooke, 2005) indicate that management changes are one of the main reasons for auditor switches by the companies while others (Chow and Rice, 1982, Schwartz and Menon, 1985, Williams, 1988a) do not find any significant association between management changes and auditor switches.

H5 Changes in management are positively associated with auditor switching.

Earnings Management

Management may engage in earnings management because of self-interest or to enhance their firm's value (Healy, 1985, Holthausen, 1990, Watts and Zimmerman, 1990, Christie and Zimmerman, 1994, DeFond and Jiambalvo, 1994, Holthausen et al., 1995, Gaver et al., 1995, Dechow et al., 1996, Beneish and Vargus, 2002, Gul et al., 2003b, Bergstresser and Philippon, 2006). Because of different risk concerns, auditors may constrain income-increasing earnings management and force managers to accept conservative accounting methods and choices. Iranian auditors have incentives to prefer conservative accounting methods and choices because an Iranian auditor can be jailed for misleading financial reports (Iranian Trade Laws Article 267) or have their license suspended or cancelled by the IACPA. We argue that such outcomes are more likely when there are earnings overstatements rather than earnings understatements.⁵ Income decreasing accounting choices preferred by the incumbent auditors (leading to income-decreasing accruals) increases the likelihood of auditor switching (DeFond and Subramanyam, 1998) as it negatively affects management compensation and market prices. It follows that TSE listed companies with negative discretionary accruals are more likely to switch their auditors than other TSE listed companies. Therefore, the earnings management hypothesis is:

⁵ Pierre and Anderson (1984) present evidence that auditors are sued when there are earnings overstatements, but not when there are earnings understatements.

H6 Discretionary accruals are negatively associated with auditor switching.

Qualified Audit Opinions

Companies in Iran can receive audit opinions that are unqualified, “except for”, “subject to”, adverse or a disclaimer. Qualified opinions are issued for scope limitations, inherent uncertainties and disagreements with management over the choice and application of accounting policies. We argue that those opinions that reflect environmental conditions, i.e., inherent uncertainties or scope limitations not imposed by the client, do not increase the incentives for auditor switching. Conversely, reasons for the qualification that reflect disagreements between management and the auditor, i.e., violations of GAAP and client imposed scope limitations, are more likely to result in auditor switching. This is consistent with the argument that companies may switch auditors as a means of avoiding a qualified opinion or after receiving a qualified opinion in the hope of receiving an unqualified opinion the following year. Prior studies (Chow and Rice, 1982, Teoh, 1992, Lennox, 2000, Hudaib and Cooke, 2005) find a positive significant association between auditor changes and receiving a qualified audit opinion. Therefore, the qualified opinion hypothesis is:

H7 Qualified audit opinions resulting from violations of GAAP and client imposed scope limitations are positively associated with auditor switching.

4. Empirical model

A logistic regression model is used to test the hypothesized relationships between our test variables and auditor switching. The model is as follows.

$$\begin{aligned} \text{Auditor Switch} = & \beta_0 + \beta_1 \text{Competition} + \beta_2 \text{Privatization} + \beta_3 \text{Alignment} + \beta_4 \text{Ownership} + \\ & \beta_5 \Delta \text{Management} + \beta_6 \text{EarnMgt} + \beta_7 \text{QualDisagree} + \beta_8 \text{QualOther} + \beta_9 \text{Size} \\ & + \sum \beta_i \text{Industry}_i \end{aligned}$$

Where:

Switch = dummy variable equal to 1 where a client changed auditor, 0 otherwise;

Competition = dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise;

Privatization = dummy variable equal to 1 if public sector ownership became less than 50% in the prior year; 0 otherwise;

Alignment = dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise;

Ownership = number of shareholders with more than 5% equity ownership;

Δ Management = dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise;

EarnMgt = discretionary accruals measured using the cross-sectional modified Jones model for the prior year;

QualDisagree = dummy variable equal to 1 if the prior year's audit opinion is qualified because of violations of GAAP or client imposed scope limitations, 0 otherwise;

QualOther = dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violations of GAAP or client imposed scope limitations, 0 otherwise;

Size = natural logarithm of total revenue for the previous year; and

Industry = dummy variables for industries.

Although we do not have a hypothesis relating to QualOther, we include the variable in our model to examine whether audit qualifications for reasons other than violations of GAAP and client imposed scope limitations impact on auditor switching.

Consistent with prior studies on auditor switching, we include size and industry as control variables. Previous studies that examine the effect of client size on auditor switching use different approaches with inconsistent results. Healy and Lys (1986), Francis and Wilson (1988), Firth and Smith (1992) and Woo and Koh (2001) report a significant positive association with switching to a higher level of audit quality. Previous studies (Schwartz and Menon, 1985, Haskins and Williams, 1990) use revenue as a measure of size.

5. Results

Sample and Descriptive Statistics

The population of interest includes all companies (1,654 firm-years) listed on the TSE for the period 1999 to 2003. We collected data for 1,455 firm-years by accessing the firm's financial statements in the Tehran Stock Exchange library. Missing financial reports meant

that we could not collect data for all the firms. Many of the financial reports were incomplete or had pages removed. After eliminating firms with missing data, our final sample comprises 748 firm-year observations.⁶

The number and type of auditor changes are presented in Table 1. There are 75 auditor changes during our sample period. An examination of the Table 1 reveals that after the establishment of the IACPA in 2001 there was a substantial increase in auditor switches by TSE listed companies. The largest percentage changes are 19% in 2003 and 15.8% in 2002. This is consistent with the argument that increased competition in the audit market, as a result of the establishment of the IACPA, increased the likelihood of auditor switching by TSE listed companies. This is also supported by the distribution of auditor switching by type of auditors (public versus private) during our sample period. Most of the auditor changes (64%) were from the public sector auditor to private sector auditors and 43 of the 48 changes occurred after the establishment of the IACPA. Only 4 (5.3%) of the auditor switches are from a private sector auditor to the public sector auditor and 3 out the 4 cases occurred in 1999, which is before the establishment of the IACPA in 2001.

[Insert Table 1 here]

Descriptive statistics are presented in Table 2. The number of companies that were privatized (public sector ownership became less than 50% during the prior year) is 17 (2.3%). The small number of companies that were privatized works against finding a significant result for this variable.⁷ A very high proportion (88.6%) of companies received a qualified audit opinion. Most of the qualified audit opinions are caused by material uncertainties over the adequacy of the provision for tax payable as a consequence of differences in interpretations of tax laws.

[Insert Table 2 here]

Pearson correlation coefficients are presented in Table 3. The highest correlation is between different types of qualification including QualDisagree and QualOther (-.628). Qualified audit opinions are issued because of either violation of GAAP or client imposed scope limitation (QualDisagree) or the other reasons (QualOther). Each type of qualification

⁶ Chi-square tests for the distribution of valid and missing data across auditor change and no change for each variable indicates that there is no apparent bias in missing data relative to the dependent variable.

⁷ The government's privatization policy is progressing as the number and percentage of government controlled companies decreases over time. Based on the total population of TSE listed companies, in 1999, 35% of TSE listed companies are government controlled (greater than 50% government ownership) while in 2003, 27% of the TSE listed companies are government controlled. In 1999, the average government ownership percentage across all TSE listed companies is 36%, falling to 26% by 2003.

reduces the chance of receiving the other type, which is supported by the high negative correlation.

[Insert Table 3 here]

Multivariate Analysis

The results for the logistic regression model are presented in Table 4. Six of our nine hypotheses are supported. Competition is positive and significant ($p = .000$), which supports H1. Increased competition in audit market, after the establishment of the IACPA in 2001, increased the likelihood of auditor switching. The increased number of auditors in the market place implies different levels of audit quality and competitive advantage, which provides TSE listed companies with a wider choice of auditors.

[Insert Table 4 here]

Privatization is not significant and, therefore, H2, which states that companies are more likely to switch auditors in the year after privatization, is not supported. This may be because of the small number of privatized companies in our sample (17) or that the effects of privatization take longer than one year to materialize.

Alignment is negative and significant ($p = .005$), which means that government controlled entities with a public sector auditor and private sector controlled companies with a private sector auditor are less likely to switch auditors. This result is consistent with prior research (Burton and Roberts, 1967, Shockley, 1981, Addams and Davis, 1994, Beattie and Fearnley, 1998b) implying that companies are more likely to select or retain an auditor that meets their needs.

Ownership is not significant and, therefore, H4, which predicts a negative association between ownership concentration and auditor switching, is not supported. The result appears inconsistent with prior studies that find a negative association between ownership concentration and switching auditors (Woo and Koh, 2001).⁸

Consistent with our hypothesis that changes in management (CEO) as a result of privatization increases the likelihood of auditor switching by TSE listed companies (H5), Δ Management is positive and significant ($p = .001$). This finding is consistent with prior research (Burton and Roberts, 1967, Carpenter and Strawser, 1971, Beattie and Fearnley,

⁸ There are no Big 4 firms in the Iranian audit market and the size of the audit firms changed rapidly during our sample period with the result that there were no audit firms that clearly dominated the market. Therefore, we are not able to replicate prior studies of switching between auditors of different quality, such as Francis and Wilson (1988) and Woo and Koh (2001).

1995 and 1998b, Woo and Koh, 2001) and the argument that new managers dissociate themselves from previous relationships and associate with familiar parties with whom they have a preferred relationship (Williams, 1988a, Seabright et al., 1992, Addams and Davis, 1994, Beattie and Fearnley, 1998b, Hudaib and Cooke, 2005).

The EarnMgt-modified Jones model variable is negative and significant ($p = .008$), which supports H6 that companies with income-decreasing earnings management (negative discretionary accruals) are more likely to switch their auditors. The finding implies that managers are more likely to switch auditors who constrain income-increasing earnings management in the hope of having more cooperative auditors. The result is consistent with DeFond and Subramanyam (1998).

The QualDisagree variable is positive and significant ($p = .076$), which supports H7, which states that companies with a qualified audit opinion because of GAAP violation(s) and/or client imposed scope limitations are more likely to switch auditors. This result is consistent with prior studies (Chow and Rice, 1982, Teoh, 1992, Lennox, 2000, Hudaib and Cooke, 2005) that find a positive significant association between audit qualification and auditor switching.

The QualOther variable is not significant. Therefore, auditor switches are driven by qualifications reflecting conflict between the auditor and management rather than qualifications due to environmental conditions, such as inherent uncertainties or scope limitations not imposed by the client.

Size is negative and significant ($p = .011$), consistent with Beattie and Fearnley (1998b) and Hudaib and Cooke (2005). This result indicates that the tendency of auditor switching is greater for smaller companies. Auditing large clients requires more resources (i.e., human and technical), which are usually provided by small number of large audit firms. This provides less option to large companies for auditor choice.

6. Additional analyses

Different Measures of Privatization

We test privatization by using dummy variables for different percentages of decrease in the public sector ownership in the prior year. The percentages are 5% or greater, 10% or greater, 15% or greater, 20% or greater, 25% or greater, and 30% or greater. The results (not reported) are consistent with our earlier finding that privatization is not related to auditor switching.

Different Measures of Earning Management

Dechow et al. (2003) argue that the cross-sectional modified Jones model misclassifies some nondiscretionary accruals as discretionary. They developed a “forward-looking model” based on the modified cross-sectional Jones model to overcome this problem. Therefore, we also use their “forward-looking model” to estimate discretionary accruals. The results are reported in Table 5. The Dechow et al. measure of discretionary accruals variable is negative and significant ($p = .001$), consistent with our result using the modified Jones model.

We also test whether the absolute value of discretionary accruals is related to auditor switching using both modified Jones model and the Dechow et al. model. The results are inconsistent (Table 6). The absolute value of discretionary accruals using modified Jones model is not significant while absolute value of discretionary accruals using Dechow et al. model is positive and significant ($p = .027$).

Increased Competition-Further Examination

We test competition by using dummy variables for the years 2000 to 2003 instead of the competition variable. The results are reported in Table 5. Consistent with our finding that auditor switching increased with increased competition, the years following the establishment of the IACPA (2002 and 2003) are significant and positive. The year 2000 variable is not significant. The year 2001 variable, the year of establishment of the IACPA, is negative and significant. The result for 2001 may be a consequence of uncertainty in the audit market. Companies may have delayed switching decisions during the period of transition. This is supported by the fact that, in our sample, there were only 3 switches in 2001 followed by 27 switches in each of 2002 and 2003.

Different Measure of Ownership Concentration

Our measure of ownership concentration in the main model is the number of shareholders with more than five percent equity ownership. We also test ownership concentration using the percentage of shares owned by the largest single shareholder in the prior year. The result reported in Table 5 indicates that the Concentration variable is negative and significant ($p = .056$), which is not consistent with our earlier finding that ownership concentration is not related to auditor switching. This inconsistency may refer to the fact that large single shareholder in TSE listed companies is mainly the Government while using the number of large shareholders include private sector shareholders as well. When there is one

type of shareholders (the Government or private sector) in the company, taking concerted actions by large shareholders is much easier as they may have less conflict of interests or conflicting view of corporate strategy compared to the time that there is more or different types of shareholders. This may reduce the likelihood of auditor switching.

5. Conclusions

We find that increased competition, auditor-client alignment, changes in CEO, earnings management, and qualified audit opinions due to auditor-management conflicts are significantly associated with auditor switching by companies listed on the Tehran Stock Exchange. The findings support the premise that increased competition in the audit market increases auditor switching. Prior research has only examined conditions of decreasing competition in the audit market so our study makes a valuable contribution in this regard.

We do not find a significant relation between privatization and auditor switching. However, very few of the companies in our sample were transferred out of government control during our sample period. We also did not find a significant relation between ownership concentration and auditor switching. The high levels of government ownership and control in Iranian companies may have influenced this result. Further progress on privatization in Iran may result in different switching behavior.

Our research sample only includes two years following the regulatory changes. A longer period may reveal more insight into auditor switching behavior in emerging audit markets.

Because our findings may be dependent on the particular institutional setting in Iran, the results may be different in other emerging markets with different market structures and regulations. However, most of our results are consistent with findings in developed markets.

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Table 1
Auditor Changes 1999-2003

Year	n	Auditor changes		Type of auditor change		
		Number	Percentage	Public to private	Private to private	Private to public
1999	115	7	6.1%	1	3	3
2000	154	11	7.1%	3	8	0
2001	166	3	1.8%	1	2	0
2002	171	27	15.8%	20	6	1
2003	140	27	19%	23	4	0
Total	748	75		48	23	4

Table 2
Descriptive Statistics

Variable	Mean or Percentage	Standard Deviation
Competition	41.8%	
Privatization	2.3%	
Alignment	58.4%	
Ownership	2.62	1.34
ΔManagement	27.1%	
EarnMgmt	0.0	0.19
QualDisagree	79.3%	
QualOther	9.4%	
Size	225105	996617

Competition is a dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise; Privatization is a dummy variable equal to 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment is a dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; ΔManagement is a dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

Table 3
Pearson Correlation Matrix

	Competition	Privatization	Alignment	Ownership	ΔManagement	EarnMgt	QualDisagree	QualOther	Size
Competition	1								
Privatization	-.020 (.580)	1							
Alignment	.023 (.534)	-.108 (.003)	1						
Ownership	.033 (.363)	-.004 (.917)	-.113 (.002)	1					
ΔManagement	-.018 (.624)	.008 (.831)	-.034 (.351)	-.003 (.941)	1				
EarnMgt	.036 (.322)	-.021 (.572)	.035 (.336)	.001 (.969)	-.023 (.532)	1			
QualDisagree	-.135 (.000)	-.033 (.372)	-.010 (.792)	-.019 (.607)	.052 (.152)	-.118 (.001)	1		
QualOther	-.012 (.743)	-.018 (.619)	.048 (.194)	-.005 (.887)	-.052 (.159)	.064 (.082)	-.628 (.000)	1	
Size	.171 (.000)	.081 (.027)	-.078 (.033)	-.025 (.494)	-.048 (.186)	.066 (.072)	-.072 (.050)	-.002 (.967)	1

Correlations are based on 748 firm-year observations over the period 1999-2003. Competition is a dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise; Privatization is a dummy variable equal to 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment is a dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; ΔManagement is a dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

Table 4
Logistic regression estimates for the main model (N=748)
(Dependent variable is change (1) or no change (0) in auditors)

Variables	β	<i>p</i> value #
Competition	1.610	.000
Privatization	-1.002	.187
Alignment	-.701	.005
Ownership	.097	.148
Δ Management	.838	.001
EarnMgt-modified Jones model	-1.724	.008
QualDisagree	.651	.076
QualOther	.595	.333
Size	-.241	.021
Constant	-1.479	.254
Industry fixed effects	included	
Pseudo R Square		.201
N		748

These columns present one-tailed p-value (except for QualOther and Size) applied in assessing the null hypothesis that all the coefficients (parameters) are zero.

Competition is a dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise; Privatization is a dummy variable equal to 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment is a dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management is a dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

Table 5
Logistic regression estimates for the research model-additional tests
(Dependent variable is change (1) or no change (0) in auditors)

Variables	EarnMgt-Dechow et al. (2003) model		Competition-year dummies		Concentration	
	β	p value #	β	p value #	β	p value #
Competition	1.583	.000	-	-	1.644	.000
Privatization	-1.085	.166	-.840	.231	-1.041	.181
Alignment	-.492	.036	-.737	.003	-.739	.003
Ownership	.099	.155	.095	.155	-	-
Δ Management-CEO	.823	.002	.833	.001	.871	.001
EarnMgt-modified Jones model	-	-	-1.708	.009	-1.740	.008
EarnMgt- Dechow et al. (2003) model	-2.856	.001	-	-	-	-
QualDisagree	.844	.042	.702	.068	.670	.072
QualOther	.515	.438	.650	.229	.643	.299
Size	-.235	.027	-.233	.025	-.245	.020
Competition-dummy 2000	-	-	.198	.350	-	-
Competition-dummy 2001	-	-	-1.350	.032	-	-
Competition-dummy 2002	-	-	1.230	.005	-	-
Competition-dummy 2003	-	-	1.485	.001	-	-
Concentration	-	-	-	-	-.938	.056
Constant	-1.789	.179	-1.354	.301	-.747	.555
Industry fixed effects	included		included		included	
Pseudo R Square	.201		.219		.205	
N	725		748		748	

These columns present one-tailed p-value (except for QualOther and Size) applied in assessing the null hypothesis that all the coefficients (parameters) are zero.

Competition is a dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise; Privatization is a dummy variable equal to 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment is a dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management is a dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones or Dechow et al. model for the prior year; QualDisagree is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; Size is natural logarithm of total revenue for the previous year; Competition-dummies (2000-2003) are a dummy variable equal to 1 for each related year, 0 otherwise; and Concentration is the percentage of shares owned by the largest single shareholder in the prior year.

Table 6
Logistic regression estimates for the research model-additional tests
(Dependent variable is change (1) or no change (0) in auditors)

Variables	EarnMgt-modified Jones model		EarnMgt-Dechow et al. model	
	β	p value #	β	p value #
Competition	1.606	.000	1.552	.000
Privatization	-.968	.192	-.991	.183
Alignment	-.735	.003	-.533	.025
Ownership	.102	.136	.109	.133
Δ Management	.866	.001	.810	.002
ABSEarnMgt	1.121	.118	2.332	.027
QualDisagree	.758	.048	.955	.025
QualOther	.620	.311	.478	.468
Size	-.259	.013	-.254	.017
Constant	-1.489	.253	-1.849	.171
Industry fixed effects	included		included	
Pseudo R Square	.189		.183	
N	748		725	

These columns present one-tailed p-value (except for QualOther and Size) applied in assessing the null hypothesis that all the coefficients (parameters) are zero.

Competition is a dummy variable equal to 1 where there is increased competition in the audit market (for the period 2002-2003), 0 otherwise; Privatization is a dummy variable equal to 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment is a dummy variable equal to 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management is a dummy variable equal to 1 if there is a change in chief executive officer in the prior year, 0 otherwise; ABSEarnMgt is absolute value of discretionary accruals measured using the cross-sectional modified Jones model or Dechow et al. for the prior year; QualDisagree is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther is a dummy variable equal to 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.