Firm Size, Audit Regulation and Fraud Detection: Empirical Evidence from Iran

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An auditor has the responsibility for the prevention, detection and reporting of fraud. Illegal acts and errors are the most controversial issues in auditing, and have been the most frequently debated areas amongst auditors, politicians, media, regulators and the public. Prior research has documented a positive association between audit quality and auditor size. While some studies have used the audit fee as a surrogate for audit quality, other studies have employed more direct measures, such as the outcomes of quality control reviews. Those latter studies, however, used samples that suffer from severe geographic or client-type restrictions. Moreover, most studies of the quality-size relationship have focused on relatively large CPA firms. By the way, in recent years there has been considerable debate about the nature of audit practice (Salehi 2007). Auditors also have responsibility for ensuring the accuracy and precision of statements prepared by managers.

*Key words:* audit regulation, fraud detection, audit responsibility, Iran

Introduction

Etymologically, the word ‘audit’ is derived from the Latin word, ‘audire,’ which means ‘to hear’. Thus in the beginning, the word ‘audit’ was meant ‘to hear’ and auditor literally meant a ‘hearer’. The hearing function by the auditor was then aimed at declaring that the accounts kept by the management and the financial statements prepared by them were ‘true and correct’, and his function was to give assurance against fraud and intentional mismanagement. Gradually, this hearing function of the auditor was transformed into a verifying function. Hence the principal purpose of independent auditing now is to form an opinion on the accuracy, reliability and fairness of representations in the financial statements of enterprises, and to make this information available to external users. According to Salehi (2008) a current search for synonyms revealed various suggestions for the term audit, as follows:
Accordingly, the main object of audit was also transformed thus making the auditor declare that the accounts prepared by the companies as revealed by their financial statements were ‘true and fair’.

Littleton (1933, 260) was of the view that early auditing was designed to verify the honesty of persons charged with fiscal, rather than managerial responsibilities. He identified two types of early audits; firstly, public hearings of the results of government official audits, and secondly, the scrutiny of the charge-and-discharge accounts. Both types of audit were designed to afford a check upon ‘accountability’ and nothing more. It was in effect a case of examining and testing an account of stewardship (Littleton 1933, 264). Many researches conducted on the concept of audit and its purposes also evidence the same.

In the nineteenth century, the role of auditors had been directly linked to management’s stewardship function (Flint 1971), with stewardship being regarded in the narrow sense of honesty and integrity. But the verifying function was on a sampling basis because of the burgeoning volume of business activity. This functional shift in auditing from ‘true and correct view’ to ‘true and fair view’ caused a paradigm shift in the audit process. This also caused a change in audit opinion from ‘complete assurance’ to ‘reasonable assurance’. According to Chow (1982), controlling the conflict of interests among firm managers, shareholders and bondholders is a major reason for engaging auditors. In essence, auditing is an independent function by means of an ordered and structured series of steps, critically examining the assertions made by an individual or organization about economic activities in which they have engaged and communicating the results in the form of a report to the users.

The audit profession is crucial to current economies because of the assurances that auditors provide to users of financial statements (Arens and Leobbeke 2000). Auditing increases the reliability of financial information provided to investors, owners, creditors and
other users. In a nutshell, the auditor’s duty is detection of fraud and errors.

**Fraud: The Concept and Definition**
Allyne and Howard (2005, 285), define fraud as intentional deception, cheating and stealing. Some common types of fraud include creating fictitious creditors, ‘ghosts’ on the payroll, falsifying cash sales, undeclared stock, making unauthorized ‘write-offs’, and claiming excessive or never-incurred expenses. Pollick (n.d.) regards fraud as a deliberate misrepresentation, which causes one to suffer damages, usually monetary losses. According to Pollick, most people consider lying as fraud, but, in a legal sense, lying is only one small element of actual fraud. Albrecht et al. (1995 cited in Allyne and Howard 2005, 287) classified fraud into: employee embezzlement, management fraud, investment scams, vendor fraud, customer fraud, and miscellaneous fraud. Fraud also involves complicated financial transactions conducted by the white financial reporting process and auditing functions.

Fraud is the intentional distortion of financial statements or other records by persons internal or external to the authority, carried out to conceal the misappropriation of assets or otherwise for gain. It is a generic term to describe a variety of offences under either the Theft Act 1968 or the Criminal Justice Act 1987. This definition does not include other irregularities which may result in loss to the Council (e.g. theft). Therefore, for the purpose of this Strategy fraud has a wider meaning to include other irregularities. Pollick (n.d.) defines fraud as white-collar criminals, business professionals with specialized knowledge and criminal intent. Further, according to the Black Law Dictionary (cited in Lawrence and Wells 2004), fraud also means taking advantage over another person by providing false, misleading suggestions, or by suppression of the truth. Therefore, fraud is not restricted to monetary or material benefits. It includes intangibles such as status and information. In the Anti-fraud policy in Murdoch University (2001), fraud is described as ‘... inducing a course of action by deceit or other dishonest conduct, involving acts or omissions or the making of false statements, orally or in writing, with the object of obtaining money or other benefits from or by evading a liability.’

**Auditor Roles for Fraud Detection**
The external auditor provides a crucial role in providing reasonable assurance to the quality of financial information presented to stakeholders and other users of financial statements. As an independent,
objective party, shareholders, creditors and other interested parties rely on the audit report to determine whether to rely on the information for decision making. The two primary characteristics that most stakeholders expect from the external auditor are competence and independence. State licensure requirements address the technical competency aspects of the external auditor. The state of independence is more difficult to determine. The role of auditors has not been well defined from the inception (Alleyne and Howard 2005). Porter (1997) reviews the historical development of the auditors’ duty to detect and report fraud over the centuries. Her study shows that there is an evaluation of auditing practices and shift in auditing paradigm through a number of stages. Boynton, Johnson, and Kell (2005) claim that auditors are required to be more proactive in searching for fraud during the course of an audit under ISA 240 (Revised). Their duties now include considering incentives and opportunities presented to potential fraudsters, as well as rationalizations that the fraudulent acts are justified. Auditors are also expected to inquire more closely into reasons behind such matters as, for example, errors in accounting estimates, unusual transactions that appear to lack business rationale, and a reluctance to correct immaterial errors discovered by the audit.

A relatively early study by Jensen and Meckling (1976) examines some of the issues associated with the distinction between managing and funding a business and demonstrates how the separation of the two gives a role for auditors arises naturally from the existence of outside ownership, or equity, claims against a firm. As managers’ share of firm ownership declines, they have the incentive to boost their own total compensation, including all types of fringe benefits, at the expense of the other owners. Potential investors, recognizing that the owner managers have this incentive, reduce the price they are willing to pay for shares in the firm. But if the owner-managers can commit to limiting their perquisites, investors will be willing to pay more for shares, benefiting the owner-managers’ efforts to expand the firm. Subjecting the firm’s financial records to an independent audit can enhance the credibility of such a commitment by the owner-managers.

Jensen and Meckling show that similar considerations apply to a firm funded by debt, or bonds. In this case, the owner-managers borrow money to run the business. Here, too, the managers’ incentives differ from those of the individuals funding the firm. After managers have raised funds from debt holders, they can benefit by investing the money in high-risk activities. Debt holders recognize the man-
Firm Size, Audit Regulation and Fraud Detection

agers’ and shareholders’ incentive to pursue high-risk activities, potentially at their expense, and therefore demand a higher rate of interest, or a risk premium, on the money lent to the firm. However, by committing in a debt covenant to policies that limit debt holders’ risk exposure, the managers and shareholders may be able to reduce the premium. An independent auditor can help the managers and shareholders demonstrate to debt holders that such risk-limiting policies are being followed.

Similar considerations apply to the role of debt covenants and auditing in addressing the underinvestment problem Myers (1977) analyzes, in which the shareholders of a firm with outstanding debt can have the incentive to reject investment projects with a positive net value if the proceeds would accrue to debt holders. Smith and Warner (1979) describe various types of covenants to protect bondholders from managers’ and equity holders’ incentives to act against their interests. Auditing can help verify the accounting criteria in such covenants and help ensure that the agreements are honored. If those investments pay off, the managers can repay the debt holders the promised amount and keep the remainder for themselves. If the investments perform poorly, they can simply default on the debt. In this case, shareholders are on the side of the managers, since they, too, could benefit from high-risk activities once the debt has been issued. According to the above researches, several factors may affect audit detection of fraud and irregularities. In this survey the authors going to test the affect of audit regulation on fraud detection, lack of conflict interest and fraud detection, audit market mechanism and fraud detection, and audit firm size and fraud detection. Here we are going to explain the firm size and audit quality which may lead to fraud detection. Furthermore, we ignore other factors which in this research we assumed that may affect to fraud detection.

Firm Size

The size of audit firm has been used as a surrogate for audit quality, that is, large audit firms have a reputation to safeguard and therefore will ensure an independent quality audit service. Larger audit firms have better financial resources and research facilities, superior technology and more talented employees to undertake large company audits than do smaller audit firms. Their larger client portfolios enable them to resist management pressure, whereas smaller firms provide more personalized services due to limited client portfolios and are expected to succumb to management requirements (Lys and Watts 1994). Therefore, the size of audit firm is an important
characteristic that reflects auditor independence. Thus, the issue of maintaining auditor independence is more crucial for smaller firms than larger firms. A large body of research examines the relationship between audit firm size and audit quality. Those studies can be traced back to the seminal work by DeAngelo (1981) and Dye (1993). DeAngelo argues that large audit firms are more independent and hence of higher quality both because of advanced techniques and more wealth at risk upon audit failure. On the other hand, Dye (1993) argues that investors are more likely to sue a large audit firm than a small audit firm upon untruthful disclosure for their ‘deep pocket’. Both theories forecast a positive association between audit size and quality.

Empirically, many researchers have tested this association by different proxies of audit quality. For example, St. Pierre and Anderson (1984) and Palmrose (1988) use the frequency of lawsuit against audit firms as a measure of audit quality. Those authors found that larger audit firms have a lower incidence of litigations and thus higher quality. Reynolds and Francis (2001) and Craswell, Stokes, and Laughton (2002) provide evidence that larger audit firms tend to be stricter in issuing opinions. In another research, Teoh and Wong (1993) measured market perception of audit quality with earnings response coefficients and found that investors show more dramatic responses to reports audited by the Big 8 audit firms. DeAngelo (1981) suggested that users of financial statements differentiate the credibility of information content in the statements. However, Krishnan (2005) found evidence to the contrary and documented that audit quality differed between and within audit firms.

**Empirical Evidences**

Audit quality and auditor independence are intricately related and the direction of causality is not evident. For Ramsay (2001, 96), independence is an imprecise and ambiguous concept and there is much debate as to the appropriate level of auditor independence and how this should be applied. The securities and Exchange Commission (SEC) defines independence as a mental state of objectivity and lack of bias (Frankel, Johnson, and Nelson 2002, 72), while the International Federation of Accountants, IFAC (1999, 557) has stated that professional accountants in public practice when undertaking a reporting assignment should be and appear to be free of any interest which might be regarded, whatever its actual effect, as being incompatible with integrity, objectivity and independence. In its recently issued two quality control standards (ISQC1 and ISA 220R),
IFAC strengthens its previous audit quality control standards. The two new standards deal with the system of quality control, leadership responsibilities for quality, ethical requirements and independence, client acceptance and relationship, human resource management within the audit firm, engagement performance and monitoring. It prescribes two key requirements: the rotation of the engagement partner every seven years and the appointment of an independent pre-issuance audit quality control review partner for the audit of 'public interest entities'. Testing evidences and finding surrogates for empirical works have brought more questions than answers (Kinney and Libby 2002; School of Accountancy 2004). As it is very clear, one of the main components of audit quality is fraud detection. In such a condition, the authors requested to accomplish their job very accurately, in other words they requested to detect fraud in financial statements.

Analytical procedures (APS) have been posited to be a useful tool for identifying fraud (Thornhill 1995). APS is the name used for a variety of techniques the auditor can use to assess the risk of material misstatements in financial records. These procedures involve the analysis of trends, ratios, and reasonableness tests derived from an entity’s financial and operating data. SAS no. 56 requires that APS be performed in planning the audit with an objective of identifying the existence of unusual events, amounts, ratios and trends that might indicate matters that have financial statement and audit planning implications (AICPA 1988). According to SAS no. 99, the current fraud standard, the auditor should consider the results of APS in identifying the risks of material misstatement due to fraud (AICPA 2002). While the procedures are well known and widely used, there is a general lack of understanding of how they are properly applied, and how much reliance should be placed on them. On the other side of the window, large numbers of prior studies have shown that auditor reputation has a direct association with audit quality. Consistent with the 'deep pockets hypothesis', Dye (1993) posited that wealthier audit firms have more motivation to be diligent in their examinations of client companies, as their greater wealth results in them being more susceptible to lawsuits, and therefore they have more to lose in the case of audit failure (Clarkson and Simunic 1994; Feltham, Hughes, and Simunic 1991). On the other hand, smaller firms were said to have less wealth; therefore, any favorable judgment in a lawsuit may possibly be a hollow victory. Pearson (1980) found the level of auditor independence to be positively associated with the size of the audit firm. Large audit firms did not rely on revenue from a single
client because the impact on their financial position was not material, as compared to smaller audit firms. Pearson (1980) reported that smaller firms would experience more difficulty in resisting client pressures in situations of conflict. DeAngelo (1981) contended that large audit firms had more to lose if they were found to have failed to honestly report a client’s condition; therefore, their reports are expected to be more reliable. It was postulated that large firms have larger client portfolios than smaller firms; thus, they have more to lose if they are associated with accounting scandals. Smaller audit firms were also claimed to provide a more personalized mode of services that would enhance close relationships with their clients (Gul 1991; Shockley 1982). Shockley (1981) discovered that smaller audit firms are more vulnerable to the risk of auditor independence impairment than larger audit firms. However, partners from local and/or regional offices that responded to his questionnaire showed conflicting views. It is believed that this group of respondents is protective towards the smaller audit firm’s image (Shockley 1981). Pearson and Ryans (1981/1982) revealed that smaller audit firms are more vulnerable to company management pressures than larger audit firms. However, partners in small and medium sized audit firms disagreed with the contention that the size of the audit firm differentiates independence. These results were supported when Gul (1991) also found that larger audit firms could more easily resist management pressure than smaller audit firms, and smaller audit firms were alleged to succumb to client pressure.

Large audit firms have superior technology and more talented employees than smaller firms, and consequently have higher incentives to behave independently (McLennan and Park 2003). As a consequence, the information contents of audit reports certified and produced by large firms are considered to be more credible and reliable than those of smaller audit firms (Davidson and Neu 1993, Beatty 1989; Titman and Trueman 1986). Join then!

Recent audit quality research has focused on the role of auditor industry specialization. Hogan and Jeter (1999) found that measures of specialization have increased in both regulated and unregulated industries, consistent with returns to specialization. Craswell, Francis, and Taylor (1995) argued that audit firms market themselves in terms both of a general reputation and of industry expertise. In a test of audit fees in the Australian audit market, they found that industry specialists receive a significant fee premium, and that this fee premium is a significant component of the fee premium received by the Big 5 firms.
Objectives and Research Questions

As previously mentioned, audit quality is the output of audit practice, and one of the major elements of audit quality is fraud detection. The objective of this study was to determine the factors which may have a positive or negative affect on audit quality or audit fraud detection. In order to reach this objective, the questions below were investigated in this research:

q1  Do audit regulations affect fraud detection?
q2  Does the lack of conflict interest affect higher fraud detection?
q3  Does market mechanism positively affect fraud detection in the Iranian corporate sector?
q4  Does audit firm size have an effect on better fraud detection?

To achieve the above objectives and answer the research questions suitable research methodologies were employed.

Research Methodology

In this research at the first step the important factors related to auditing quality were explored by studying technical contexts. Further, for collecting useable data according to the literature, suitable questionnaires were designed and developed. The questionnaires contained two parts namely; Bio data and main questions. In this research, participants at the first step were requested to determine their idea (agreement or disagreement on the effects of the independent variable on detecting important distortions). Then, according to their idea, they were asked to determine the degree of agreement and disagreement. For assessing degree of disagreement and agreement we used the range of integer numbers from –9 to 9, in which –9 represents strong disagreement, and 9 represents strong agreement with the hypothesis, while zero represents none of them. In this research, reliability and validity of the questionnaire determined by calculation of the Kronabah Coefficient.

Then the validity of the explored title was assessed by the Delphi group, which includes the Iranian Association of Certified Public Accounting (IACPA) members. In the Delphi session, using the gained viewpoints, the elementary group was requested to determine the relation and importance of the detected index regulated. Hence we can say, that those factors which conduct research hypotheses are those factors which are completely compatible to the Iranian environment.

On the basis of important factors we conducted the study based on three hypotheses, including:
The rule and regulation overseeing the activity of IACPA members’ affects their willingness to explore and report important distortions neutrally.

H2 The lack of Contras benefit affects IACPA members’ willingness to explore and report important distortions neutrally.

H3 Market mechanism affects IACPA members’ willingness to explore and report important distortions neutrally.

H4 The size of auditing firms affects IACPA members’ willingness to explore and report important distortions neutrally.

Out of 240 questionnaires, 180 respondents completed the research. Among these 180 participants, there were 29 experts in accounting and auditing (16.10%) working as independent auditors, 30 participants (16.80%) working as internal auditors, 60 were financial and banking managements (62.40%), 30 were faculty members and 31 were accounting students. They consisted of 55 male (30.60%) and 125 female (29.40%). Furthermore, 135 participants (75%) were younger than 40 years and 45 participants (25%) older than 40. Among these 52.50% had less than one year’s experience, 36 percent had between 10 to 20 years’ experience and 21.5 per cent had more than 20 years’ experience. The majority of participants had sufficient auditing knowledge. Out of 180 participants, 113 participants hold bachelor’s degree in accounting and finance fields (62.50 per cent), and 67 participants hold MA or PhD degrees in accounting or finance fields (47.5 percent). Demographic characteristics of participants are summarized in table 1.

The binomial test was first conducted to assess which per cent of participants accept the effects of independent factors on dependent ones. For this purpose we divided the participants into two groups, i. e. those agreeing and disagreeing with the hypotheses. The results revealed that the rules and regulations that oversee the auditor practices have significant effects on auditor willingness to reporting important distortions neutrally ($p < 0.05$). Altogether 119 participants (66 per cent) agreed with this hypothesis which, according to our results, is confirmed (H1) with the mean degree of agreement equal to 1.8 ($SD = 2.1$, 95% of confidence interval from 1.2 to 2.4). The second hypothesis in this group was the survey on the lack of contrast benefit effects on auditor willingness to report important distortions neutrally. The result shows that this hypothesis (H2) is rejected, while 105 participants did not agree with this hypothesis (61 per cent); the mean degree of disagreement was –0.49 ($SD = 1.91$, 95 per cent of confidence interval from –1.6 to 0.084). According to our results, the
third hypothesis in this research was significantly confirmed \((p < 0.05)\). Further, there were 159 participants (88 per cent) who strongly agreed that the market mechanism does affect auditor willingness to report important distortions neutrally \((h3)\). The size of audit firms was the final hypothesis that was not confirmed according to these results. There were 126 participants (70 per cent) who disagreed that the audit firms’ size does have an effect on auditor willingness to report important distortions \((h4)\). The summary results of testing hypotheses by binomial test are presented in table 2.

As earlier mentioned, the participants were requested to determine their degree of agreement or disagreement with the questions. Table 3 represents the mean degree of agreement or disagreement according to their ideas and other statistical tools.

As shown in table 3, the Market mechanism has the most effect on detecting important distortion neutrally by the auditor.

**Conclusion**

Accounting scandals such as Enron, WorldCom, Adelphia, and Global Crossing have stakeholders asking ‘why the external auditors failed to detect financial statement fraud’ (Lee 2003). Further, nowadays there may be a further increase in financial crimes, in such conditions the auditors should be alert, as well as acting as a watch
Table 2: Dependent variable effect on detecting and reporting distortions neutrally and test results by binomial test

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<td>H1</td>
<td>Disagreeing</td>
<td>61</td>
<td>0.34</td>
<td>0.5</td>
<td>0.000</td>
<td>Confirmed</td>
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<tr>
<td></td>
<td>Agreeing</td>
<td>119</td>
<td>0.66</td>
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<td>H2</td>
<td>Disagreeing</td>
<td>109</td>
<td>0.61</td>
<td>0.5</td>
<td>0.34</td>
<td>Rejected</td>
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<tr>
<td></td>
<td>Agreeing</td>
<td>71</td>
<td>0.39</td>
<td></td>
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<tr>
<td>H3</td>
<td>Disagreeing</td>
<td>21</td>
<td>0.12</td>
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<td>0.000</td>
<td>Confirmed</td>
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<tr>
<td></td>
<td>Agreeing</td>
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<td>0.88</td>
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<td>H4</td>
<td>Disagreeing</td>
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<td>0.5</td>
<td>0.58</td>
<td>Rejected</td>
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<tr>
<td></td>
<td>Agreeing</td>
<td>54</td>
<td>0.3</td>
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Notes: Column headings are as follows: (1) hypothesis, (2) category, (3) frequency, (4) observed prop., (5) test prop., (6) asymp. sig., (7) result.

Table 3: Mean degree participants agreement or disagreement and other statistical tools

<table>
<thead>
<tr>
<th>Independent variable</th>
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<td>Rule and regulation oversees auditor activity</td>
<td>1.81</td>
<td>2.10</td>
<td>1.20 to 2.41</td>
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<tr>
<td>Contrast interest</td>
<td>-0.49</td>
<td>1.90</td>
<td>-1.06 to 0.84</td>
</tr>
<tr>
<td>Market mechanism</td>
<td>4.41</td>
<td>2.92</td>
<td>3.98 to 4.84</td>
</tr>
<tr>
<td>Size of auditing institution</td>
<td>-2.32</td>
<td>1.38</td>
<td>-3.12 to -1.53</td>
</tr>
</tbody>
</table>

Notes: Column headings are as follows: (1) mean degree, (2) standard deviation, (3) 95 per cent of confidence interval. Positive numbers represent mean degree of agreement while negative numbers represent mean degree of disagreement.

dog regarding their profession. However, a considerable amount of academic and policy literature exists about audit fraud duties (Wolnizer 1995). One cardinal issue is that, unless the auditor is a party to a major collusion act, a firm does not normally fail because of its auditor. The dominant reasons for corporate failure are bad operational and strategic decisions, unanticipated exogenous shocks and the dysfunctional behavior of the firm’s executives and employees. The audit process thus is at best diagnostic (Ng, Green and Simnett 2001, 352, 355), and the auditor may only be responsible for not properly diagnosing the firm’s financial position and performance. It is important to note that the true financial situation of the firm may not be observable, even under a real time financial reporting and accounting system, by the insiders of the firm. Hence, in trying to identify their correct financial position, Iranian firms may lead to limiting fraud commitments. To provide this ideal environment, according to the results of this survey from the view point of the participants, audit roles and regulations, and market mechanism may help...
Iranian corporate sector to achieve this final audit goal. It is strongly suggested that audit roles and regulations be improved by Iranian audit legislators.

References


Firm Size, Audit Regulation and Fraud Detection


