

# *Iranian Angle to Non-Audit Services: Some Empirical Evidence*

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The purpose of this paper is to show different Iranian accountants' as well as shareholders' ideas on Non-audit services and their effects on audit independence in Iran. In other words, in this paper the authors have attempted to deal with this question: does providing non-audit services by an Iranian auditor impair audit independence? And in order to gather usable data a suitable questionnaire was designed and developed. The results of this study show that the participants strongly believe that non-audit services may impair audit independence. It is interesting to note that, although the auditors offer to clients non-audit services, they believe that offering such services leads to audit independence being questionable. Further, the result reveals that literate participants moderately agree that NAS has a negative effect on audit independence, however illiterate participants strongly agree that NAS has a negative affect on audit independence. This paper is the first paper which includes two groups of participants: the first group is auditors in general, or we can call them academicians with pretensions to having auditing literacy and the second group is non-academician, including stakeholders who may not have auditing literacy skills. This may be useful for future studies regarding the non-audit service and its effect on audit independence.

*Key Words:* auditor, independence, non-audit services, Iran

*JEL Classification:* M41, M42

## **Introduction**

This paper provides some preliminary empirical evidence on the determinants and consequences (impairment of auditor independence) of Non-Audit Service (NAS) provided by auditors in Iran. The requirement of auditor independence arises from the need to establish the independent auditor as an objective and trustworthy arbiter of the fair presenta-

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tion of financial results (Salehi and Nanjgowda 2006; Salehi 2007). Indeed, Mautz and Sharaf (1964) and Berryman (1974) posit that independence is the cornerstone of the audit profession and an essential ingredient of users' confidence in financial statements. Since independent auditors occupy a position of trust between the management of the reporting entity and users of its financial statements, they must be perceived to be operating independently on the basis of sound auditing standards and strong ethical principles. Over the years, an extensive literature on the subject of auditor independence has developed; a focal point of much of this literature has been to identify those factors which do and do not impact upon auditor independence. Among all the factors identified in the researches which might threaten the independence of the auditor, the provision of *NAS* has been the subject of the most heated debate (Canning and Gwilliam 1999). Especially, the collapse of Enron in the US and the demise of Andersen have generally undermined confidence in the world's capital markets. Much of the concern has focused on accounting and auditing practices, and particularly on the independence of auditors. Auditor independence is fundamental to public confidence in the audit process and the reliability of auditors' reports (Salehi and Abedini 2008; Salehi 2008a). The audit report adds value to the financial statements provided by managers (capital seekers) to shareholders (capital providers) through the independent verification it provides (Johnstone, Sutton, and Warfield 2001; Salehi, Mansoury, and Pirayesh 2008). The audit is not just a benefit to investors. It also reduces the cost of information exchange for both sides (Dopuch and Simunic 1982) and benefits management by providing a signaling mechanism to the markets that the information which management is providing is reliable (Salehi, Mansouri, and Azar 2009). It has been further argued that the auditors' liability insurance serves to indemnify investors against losses. So, the auditors must be independent in order to be patrons of the shareholder(s). However, from recent years on, the external auditing practice has become questionable just because of providing *NAS* to the same clients.

Before going to the heart of the problem here we are briefly explain the nature of independence.

### **Independence**

One of the key factors of the auditor's work is independence, without independence users of financial statements cannot rely on the auditors' report (Barzegar and Salehi 2008). In short, the external system of audit,

with its final product, the audit opinion, adds credibility to the financial statements so that users can rely on the information presented and, as a result, the entire system of financial reporting is enhanced (Sucher and Maclulich 2004). Furthermore, independence is the core of this system. In addition, the concept of audit independence is fuzzy, the rules governing it are complex and burdensome, and a re-examination is long overdue (Elliott and Jacobson 1992; Salehi and Azary 2008).

De Angelo (1981) defined auditor independence as the conditioner probability of reporting a discovered bridge. Arens et al. (1999) defined 'independence in auditing' as taking an unbiased viewpoint in the performance of audit tests, the evaluations of the results and the issuance of audit reports. Independence includes the qualities of integrity, objectivity and impartiality. Knapp (1985) states the independence from a different angle. He views it as 'the ability to resist client pressure'. According to Flint (1988) independence, therefore, is not a concept which lends itself to universal constitution prescription, but one for which the constitution prescription will depend on what is necessary to satisfy the criteria of independence in the particular circumstances.

The Independence Standard Board (2000) defines independence as: Freedom from pressures and other factors that impair, or are perceived to impair, an auditor's willingness to exercise objectivity and integrity when performing an audit; it is the absence of certain activities and relationships that may impair, or may be perceived to impair, an auditor's willingness to exercise objectivity and integrity when performing an audit.

There are two approaches to audit independence which have commonly been referred to as independence of fact and independence of appearance.

According to Mautz and Sharaf (1964), there are three dimensions of auditor independence which can minimize or eliminate potential threats to the auditor's objectivity:

1. Programming independence includes: freedom from managerial interference with the audit program; freedom from any interference with audit procedures; and freedom from any requirement for the review of the audit work other than that which normally accompanies the audit process.
2. Investigative independence encompasses: free access to all records, procedures, and personnel relevant to the audit; active co-operation

from management personnel during the audit examination; freedom from any management attempt to specify activities to be examined or to establish the acceptability of evidential matter; and freedom from personal interests on the part of the auditor leading to exclusions from or limitations on the audit examination.

3. Reporting independence includes: freedom from any feeling of obligation to modify the impact or significance of reported facts; freedom from pressure to exclude significant matters from internal audit reports; avoidance of intentional or unintentional use of ambiguous language in the statement of facts, opinions, and recommendations and in their interpretations; and freedom from any attempt to overrule the auditor's judgment as to either facts or opinions in the internal audit report.

The immediate objective of the audit is to improve the reliability of information used for investment and credit decisions; according to Elliott and Jacobson (1992) the principles of independence are as follows:

Audit independence improves the cost-effectiveness of the capital market by reducing the likelihood of material bias by auditors that can undermine the quality of the audit. Therefore, they play a vital role in the economic sector. However, some factors may have a negative effect on independence; these should be identified by professionals, and severe action should be taken to reduce such factors.

### **Factors Affecting Independence**

Several situations may impair the auditor's independence, such as contingent fee arrangements, gifts, auditor's contact with personnel or operations, NAS, outsourcing, opinion shopping, reporting relationships, and other matters.

Among the factors that affect auditor independence that have been studied are:

1. The effects of gifts (Pany and Reckers 1988)
2. The purchase discount arrangement (Pany and Reckers 1988)
3. The audit firm size (Shockley 1981; Gul 1989; Salehi 2008b)
4. The provision of Management Advisory Services (MAS) by the audit firm (Shockley 1981; Knapp 1985; Gul 1989; Bartlett 1993; Teoh and Lim 1996; Abu Bakar, Abdul Rahman and Abdul Rashid 2005)
5. The client's financial condition (Knapp 1985; Gul and Tsui 1992)
6. The nature of conflict issue (Knapp 1985)

7. The audit firm's tenure (Shockley 1981; Teoh and Lim 1996)
8. The degree of competition in the audit services market (Knapp 1985; Gul 1989)
9. The size of the audit fees or relative client size (Gul and Tsui 1992; Bartlett 1993; Teoh and Lim 1996; Pany and Reckers 1988)
10. The audit committee (Gul 1989; Teoh and Lim 1996; Salehi, Mansouri, and Azar 2009)
11. Practicing NAS by auditors (Beattie, Fearnley, and Brandt 1999; Rayhunandan, 2003; Salehi and Rostami 2009)

In this paper the authors have only attempted to clarify NAS and its effect on the independence of auditors.

The audit failures that have been reported have led to major criticism of the auditing profession worldwide by exposing the weaknesses of the profession in terms of safeguarding shareholders' and stockholders' interests (Citron 2003; Gwilliam 2003; Higson 2003; Brandon, Crabtree, and Maher 2004; Cullinan 2004; Fearnley and Beattie 2004; Karnishnan and Levine 2004; Mahadevaswamy and Salehi 2008; Salehi and Rostami 2009); thus some of this criticism arose from NAS practices by auditors which are the subject of this survey.

#### NON-AUDIT SERVICES

NAS may be any services other than audit provided to an audit client by an incumbent auditor. As the demand for business expert services grew over the late 20th century, public accounting firms expanded the scope of their services to include corporate and individual tax planning, internal audit outsourcing, and consulting related to mergers and acquisitions, information systems, and human resources. Recent concerns about auditor independence have focused on the provision of NAS to audit clients.

It is found that auditors believe that the auditors' work would be used as a guide for investment, valuation of companies, and in predicting bankruptcy; furthermore, the third party felt that there is a strong relationship between the reliability of the auditor's work and the investment decision. Also the auditor's work facilitates the process of economic development through the presentation of reliable information concerning the financial position of the companies (Wahdan et al. 2005). Today's public accounting firms have undergone dramatic changes in the last 25 years. Over the last decade the proportion of the revenue of large public accounting firms which derived from providing NAS grew from 12 percent to 32 percent (Public Oversight Board 2000), suggesting that the

economic bond between auditors and their clients strengthened over this time as auditors delivered more consulting-oriented services to their audit clients.

Based on the amounts reported in the Public Accounting Report, last year audit fees for the top seven accounting firms were approximately USD 9.5 billion. These accounting firms audited over 80 percent of all registrants, and virtually every company with a large market capitalization. What's more, the audit and accounting fees of the largest accounting firms, as a percentage of their revenue, has decreased significantly from 70 percent of total revenue in 1976 for the Big Eight to 34 percent of total revenue for the same firms in 1998 (Ashbaugh 2004). Given the shift in revenue streams of public accounting firms, it is important to discuss the services that audit firms provide. An accountant becomes a Certified Public Accountant (CPA) to engage in attestation services, that is, conduct audits. Scholars are concerned that benefits either from cost savings, or from fees revenue increases, can strengthen the economic bond between auditors and their clients, which can further threaten auditor independence.

Therefore, the main question that arises when auditors provide or could provide both audit and NAS is whether the auditors are able to conduct their audits impartially, without being concerned about losing or failing to gain additional services, and without considering the subsequent economic implications for the audit firm (Lee 1993). Auditors seek to provide NAS because of the considerable economies of scope that ensue, i.e. cost savings that arise when both types of service are provided by the same firm. These economies of scope are of two types: knowledge spillovers that originate in the transfer of information and knowledge, and contractual economies that arise from making better use of assets and/or safeguards already developed when contracting and ensuring quality in auditing.

Thus far, globalization in accounting and assurance service has also created the multi disciplinary nature of large audit firms (Brierley and Gwilliam 2003). These multi disciplinary firms offer audit and NAS to audit clients, and this has become one of the major concerns regarding the potential auditor independence dilemma (Quick and Rasmussen 2005).

The prohibition of specified non-audit services is predicated on three basic principles:

- an auditor cannot function in the role of management,

- an auditor cannot audit its own work, and
- an auditor cannot serve in an advocacy role for its client.

The range of services now offered by the audit firms to both the public and private sector is wide. This may be summarized as follows (Salehi, Mansouri, and Pirayesh 2009):

- designing system, and IT,
- training,
- services for payroll,
- risk management advice,
- taxation, including tax compliance and tax planning advice,
- corporate recovery and insolvency,
- forensic and litigation support,
- mergers and acquisitions services,
- transaction support and follow up,
- public offering,
- recruitment and human resources, and
- portfolio monitoring.

Provision of some of these services may pose a real threat to independence in the case of audit client. The principal threats which arise from the provision of non-audit services are:

- *Self interest*: the increase in economical benefit dependence.
- *Self review*: taking management decisions and auditing one's work.
- *Advocacy*: acting for the client's management in adversarial circumstances.
- *Familiarity*: becoming too close to the client's management through the range of services offered.

In the United States, the Sarbanes Oxley Act of 2002 implemented a ban on nine non-audit services which are as below:

1. Bookkeeping and other services related to the audit client's accounting records or financial statements
2. Financial information systems design and implementation
3. Appraisal or valuation services and fairness opinions
4. Actuarial services
5. Internal audit services
6. Management functions

7. Human resources plan
8. Broker-dealer services
9. Legal services

However, in some countries external auditors still practise *NAS* which it caused to dependence auditors.

### **Review of the Literature**

After several scandals of international and national dimensions, especially after the Enron Collapse, professionals, academics, and researchers have focused on non-audit services. However, many writers maintain that the *NAS* impair objectivity, as well as independence, whereas others argue that there exists no association between *NAS* and audit quality. In short, the findings of prior studies on impacts of *NAS* on audit quality are negative, positive, or have no effects. In a nutshell the various researchers came to three different conclusions about the effect of *NAS* on audit independence. Below, we briefly explain three different schools of *NAS*.

#### STUDIES INDICATING NEGATIVE EFFECT OF *NAS* ON AUDITOR INDEPENDENCE

Several prior studies suggest that *NAS* has negative effects on auditor practices and auditor independence. Antle (1984) considers auditor independence to be an auditor's freedom from management influence as desired by the company's owners. He considered that since management controls the auditor's fee, an auditor can ignore independence in favor of management, unless a control mechanism is implemented.

A survey carried out by Wines (1994) suggests that auditors receiving *NAS* fees are less likely to qualify their opinion than auditors who do not receive such fees, based on his empirical analysis of audit report issued between 1980 and 1989 by 76 companies publicly listed on the Australian stock exchange. He found that auditors of companies with clean opinions received a higher proportion of non audit fees than did auditors of companies with at least one qualification. In relation to management advisory services (*MAS*), Gul and Tsui (1992) conducted a survey, also using Australian companies, indicating that provision of management advisory services affects the informativeness of earnings. They found evidence that the explanatory power of earnings for returns is less for firms that provide *MAS*. Frankel, Johnson, and Nelson (2002) found empirically that levels of discretionary accruals are higher for firms whose au-



ditors provided *NAS* than for firms whose auditors do not provide such services.

According to Beeler and Hunton (2002) contingent economic rents, such as potential non-audit revenue, increase unintentional bias in the judgments of auditors. Frankel, Johnson, and Nelson (2002) and Larcker and Richardson (2004) found some evidence of potential links between *NAS* and earnings management measures. Beck, Frecka, and Solomon (1988) argue that non-audit fees further increase the client-auditor bond by increasing the portion of the audit firm that is delivered from serving a client.

Hackenbrack and Elms (2002) revisit the *ASR* 250 fee disclosures and find a negative association between stock returns and non-audit fees for sample companies with the highest ratio of non-audit fees. Brandon, Crabtree, and Maher (2004), opponents to the Joint provision of audit and *NAS*, claimed that auditors would not perform their audit services objectively and joint provision would impair perceived independence. Mitchel et al. (1993) believed that the joint provision of audit and *NAS* to audit clients would cause unfair competition due to the use of audit services to the same client.

#### STUDIES INDICATING NO EFFECT OF *NAS* ON AUDITORS' INDEPENDENCE

Several prior studies suggest that *NAS* has no effects on auditor practices and auditor independence. Glezen and Millar (1985); Corless and Parker (1987); Wines (1994); and Kinney, Palmrose, and Schoolz (2004) did not find systematic evidence showing that auditors violate their independence as a result of clients purchasing relatively more *NAS*. According to Frankel, Johnson, and Nelson (2002) several studies have re-examined the negative effects of *NAS* on audit quality, and found in their study that *NAS* has no effect on auditors' independence. Abdel-Khalik (1990) reported no significant difference in audit fees between clients purchasing audit service only and those purchasing both audit and *NAS*.

Using Discretionary Accruals (*DA*) as a surrogate for auditor objectivity, Reynolds, Deis, and Francis (2004) find no association between *NAS* and *DA*, and conclude that little evidence exists supporting the negative effects of *NAS* on auditor's objectivity.

O'Keefe, Simunic, and Stein (1994) extended Davis, Ricchiute, and Trompeter (1993), using disaggregated labor hours by rank (Partner, Manager, senior and staff) for clients of the Big Six firms in 1989, and

using also the percentage of tax fees to audit fees and the percentage of management consulting fees to audit fees as independent variables. They fail to find evidence that audit effort is reduced in a joint provision scenario. Palmrose (1999) found that less than one percent of auditor litigation has *NAS* as part of the basis on which the lawsuits are founded. Jenkins and Krawczyk (2001) asked 83 Big Five and 139 Non-Big Five accounting professionals and 101 investor participants to rate their perceptions of auditor independence, integrity, and objectivity for two scenarios in which an auditor provides neither *NAS* to one firm, nor a nominal amount of *NAS* (3 percent of total client revenues) nor a material amount of *NAS* (40 percent) to another. Although they found investors' perceptions of independence and decisions on whether or not to invest were not affected by either level of non-audit service provision. Investors (non-big-professionals) did consider the 40 percent level of *NAS* to be significant in their investment decisions.

Sori (2006) investigated the perception of Malaysian auditors, loan officers and senior managers of public listed companies on the effect of joint provision of audit and *NAS* on auditor independence. The majority of the responses agreed with the provision of *NAS* to audit client by the audit engagement team. Chung and Kallapur (2003) report no statistically significant association between abnormal accruals and the ratio of client fees to total audit firm fees.

#### STUDIES INDICATING THE POSITIVE EFFECT OF *NAS* ON AUDITORS' INDEPENDENCE

Several prior studies suggest that *NAS* has positive effects on auditor practices and auditor independence. Gul (1989) studied the perceptions of bankers in New Zealand and found that the effect of provision of *NAS* was significantly and positively associated with auditor independence. In Malaysia, Gul and Yap (1984) reported that *NAS* provision increased their confidence in auditor independence. Arruanda (1999) pointed out that joint provision of audit and *NAS* would reduce overall cost, raise the technical quality of auditing, and enhance competition. This would ultimately increase auditor independence. Carlton and Perloff (2005) emphasize that the outcome is a more efficient allocation of scarce resources without the need to duplicate efforts to recreate the required input. Kinney, Palmrose, and Schoolz (2004) noted that knowledge of a client's information system and tax accounting could spill over to the audit, improve the information available to the auditor and thus improve audit

quality, which in turn would increase the probability that problems are discovered.

Auditor's concern for reputation (Dopuch and Simunic 1982) and legal liability (Palmrose 1988; Shu 2000) should drive auditors to maintain their independence. Larcker and Richardson (2004) also document the relation between the level of NAS fees and accrual, especially for firms with weak governance. Their results suggest that auditors of firms that purchase large NAS are less likely to allow the firm to make choices that lead to large abnormal accruals. They interpret their findings as suggesting that auditors working for firms with weak governance may play a more important role in the governance process in limiting choices of abnormal accruals and that enhanced knowledge through NAS has a merely incremental positive effect on audit quality.

Ghosh, Kallapur, and Moon (2006) studied 8940 firm-years for observation over the (2000–2002) period and found that the NAS fees ratio (ratio of NAS to total fees from the given clients) is negatively associated with Earning Response Coefficients (ERC). Sharama (2006) studied the impact of audit providing NAS and audit-firm tenure on audit efficiency.

He was opposed to restricting regulations on the joint provision of audit and NAS. His studies provided evidence that demonstrates an increase in the amount of the provision of NAS, as a result of which the audit lag is reduced. He also provides evidence demonstrating that extended audit-firm tenure reduces audit lag, while shorter audit-firm tenure increases audit lag. Gore, Pope, and Singh (2001) report a positive association between the provision of non-audit services and earnings management in UK companies, suggesting that auditors' reporting standards are affected by whether the auditor also provides non-audit services to the audit client. Lennox (1999) suggests that NAS increases auditors' knowledge on clients as well as the probability of discovering problems. Their empirical data, collected from UK firms, show a significant, though weak, positive relationship between NAS fees and auditors, a surrogate for audit quality.

### **Motivation of the Study**

Companies currently demand a broad set of NAS (Wallman 1996). CPA firms are responding by offering such varied services as investment banking, strategic management planning, human resource planning, computer hardware and software installation, and internal audit outsourc-

ing services (Berton 1995; AICPA 1997). Growth in the revenues earned from these services has been significant. In constant 1999 dollars, NAS fees grew from USD 2.8 billion in 1990 to USD 15.7 billion in 1999 – an increase of over 460 percent (Antle 2000).

One of the major public concerns which have emerged from the Enron collapse has been the extent to which audit firms are providing NAS to their audit clients.

Much of the current publicly expressed concern about the integrity of auditors and the influence of NAS on auditor independence is based on opinion and assertion relating principally to the current cases, and observers generally are not looking beyond these cases. Further, the Sarbanes Oxley Act of 2002 prohibited auditing firms from providing certain NAS to audit clients and left open the possibility that other currently non-prohibited services could also be banned. However, Iranian legislators still do not mandate these rules to the Iranian environment (Salehi 2008b). Further, with regard to review of the literature, it is known that the researchers did not come to the same conclusion, in other words they came to three divergent conclusions. So, in this study, we investigate whether provision of NAS has a positive affect, a negative effect or no effect on audit independence.

### **Research Methodology**

According to the above literature the objective of this study is to examine the reaction of auditors, and shareholders regarding NAS and consulting services provided by the auditors to the same clients in Iran. In order to provide an accurate answer to this question, the authors have designed and developed a questionnaire based on the method used by previous researchers (Jenkins and Krawczyk 2001; Frankel, Johnson, and Nelson 2002; Brandon, Crabtree, and Maher 2004; Krishnan and Levine 2004). In order to find an accurate answer to the research question, the authors have designed and developed a questionnaire which it is stable for gathering useful data. Our selected method of investigation is a questionnaire, for three reasons. First, since it is acknowledged that current theory is not well specified in Iran, the general objective of this study is to incorporate qualitative behavioural factors concerning audit independence into the research design, in order to assess the relative influence of each factor type. This necessitated the use of a direct method. Second, other specific objectives necessitate the use of direct methods to elicit non-public information. Finally, closed-form questions can be identified from the

extant auditor choice literature. The research instrument was designed with close reference to the literature on questionnaire design. The questionnaire contains two parts, namely (a) bio-data, and (b) the section including several questions regarding the rejection/acceptance level of NAS by participants in Iran. The questionnaire was designed on the bases of the Likert spectrum, and all participants were requested to determine the degree of agreement or disagreement with each question by assessing the degree of disagreement and agreement, using the range of integer numbers from  $-2$  to  $2$ , where  $-2$  represents high disagreement and  $2$  represents high agreement with the hypotheses, while zero represents none of them (they graded corneal staining using a  $-2$  to  $2$  scale, where  $-2$  means highly agreeing,  $-1$  means agreeing,  $0$  = none,  $1$  means disagreeing and  $2$  means highly disagreeing). The questionnaires were distributed among the respondents from the 1 June to 30 October 2008.

The Cronbach's Alpha coefficient, used to assess reliability of the questionnaire, was  $0.946$  for the final questionnaire.

On the bases of important factors we postulated three hypotheses as follow:

- $H_1$  *Presenting bookkeeping services by auditors to the same clients has a negative effect on audit independence.*
- $H_2$  *Presenting managerial consultancy services to the same clients has a negative effect on audit independence.*
- $H_3$  *A large amount of audit fees has a negative effect on audit independence.*

### **Results of the Study**

Regarding the data analyses, at first we wanted to know from the all participants' views of NAS, which kinds of effects they have on audit independence, so the Binomial Test will be used to assess how many of the participants accept the effects of independent factors on dependent ones. Then the ANOVA (Friedman) Test will be conducted at this stage. In the last part the statistical population are sub-divided into two groups, namely: the first group was those have accounting and auditing literacy skills which, according to table 1, amounted to 2009 participants, and the second group including those participants who do not have accounting and auditing literacy skills (142 participants). In this stage the authors want to know if there are any differences between the literate group and the illiterate one. So, Mann-U Whitney will be employed in this stage.

TABLE 1 Bio-data of participants

Item	Work's field	Frequency	Percent
Academic degrees	Accounting and Auditing	2009	93.39
	Other	142	6.61
	Total	2151	100.00
Job position	Accountants	825	38.35
	Internal auditor	741	34.48
	Financial Management	123	5.72
	Financial analyst	144	6.68
	Stockholders	318	14.77
	Total	2151	100.00

Results: In total, out of 2450 questionnaires which were distributed among the participants, 87 percent of respondents completed them (2151 questionnaires were completed). Out of 1450 participants, 2009 participants had accounting knowledge (93.39 percent); the remaining 142 participants (6.61 percent) had no accounting knowledge. To conclude: the majority of participants had accounting and auditing knowledge.

Out of 2151 participants, 2009 were accountants (93.39 percent), 741 were internal auditors (34.48 percent), 123 were financial managements (5.72 percent), 144 were financial experts (6.68 percent), and 318 were stockholders. The demographic characteristics of participants are summarized in table 1.

First the binomial test was conducted to assess how many of the participants accept the effects of independent factors on dependent ones. For this purpose we divided participants into two groups including those agreeing and disagreeing with hypotheses. The results revealed that 1399 participants (65.04 percent) agreed that presenting bookkeeping services by auditors to the same clients have a negative effect on audit independence, therefore the first hypothesis is significantly confirmed ( $p < 0.05$ ). The mean degree of agreement for this hypothesis was 0.498 ( $SD = 0.121$ , 95 percent of confidence interval from 0.32 to 0.56). The results also show that 1676 participants (77.92 percent) agreed that presenting managerial consultancy services to the same clients has a negative effect on audit independence. As shown by the results, this hypothesis is accepted ( $H_2$ ) and the mean degree of agreement for this hypothesis was 0.244 ( $SD = 0.161$ , 95 percent of confidence interval from 0.182 to 0.323).

TABLE 2 Dependent variable effect on detecting distortions and test result by binomial test

(1)	(2)	(3)	(4)	(5)	(6)	(7)
H <sub>1</sub> (bookkeeping)	Disagreeing	452	0.21	0.5	0.00	Confirmed
	Agreeing	1399	0.79			
	Total	2151	1.00			
H <sub>2</sub> (manag. cons.)	Disagreeing	475	0.22	0.5	0.00	Confirmed
	Agreeing	1676	0.80			
	Total	2151	1.00			
H <sub>3</sub> (audit fees)	Disagreeing	452	0.21	0.5	0.011	Confirmed
	Agreeing	1399	0.79			
	Total	2151	1.00			

NOTES Column headings are as follows: (1) hypothesis, (2) category, (3) frequency, (4) observed prop., (5) test prop., (6) asymp. sig., (7) results.

TABLE 3 Mean degree of participants' agreement or disagreement and other statistics

Independent variable	Mean degree	Standard deviation	95% of conf. int.
Bookkeeping	0.498	0.121	0.32–0.51
Managerial consultancy	0.241	0.161	0.182–323
Audit fees	0.185	0.041	0.112–0.255

NOTES Positive numbers represent the mean degree of agreement, while negative numbers represent the mean degree of disagreement.

Regarding the third hypothesis, the results reveals that the majority of participants confirmed that a large amount of audit fees has a negative effect on audit independence (H<sub>3</sub>); 1399 participants (65.04 percent) agreed with the third hypothesis, thus this hypothesis is also significantly confirmed ( $p < 0.05$ ). The mean degree of agreement was 0.185 (SD = 0.0.41. 95 percent of confidence interval from 0.112 to 0.255).

The result of testing the hypotheses by the binomial test is shown in table 2.

Regarding those participants requested to determine the degree of agreement or disagreement with the question by the Likert Spectrum, table 3 represents the mean degree of agreement or disagreement according to their ideas and other statistics. The competency of auditors has the most effect on detecting important distortion by the auditor in order to improve audit independence.

The dependent variables were compared in their effects on auditor in-

TABLE 4 Results of the Mann-Whitney U-test

(1)	(2)	(3)	(4)	(5)	(6)	(7)
H <sub>1</sub> (bookkeeping )	ALP	2.36	0.81	-0.24	-2.578	0.010
	AIP	2.60	1.142			
H <sub>2</sub> (manag. cons.)	ALP	2.50	0.909	-0.51	-5.873	0.000
	AIP	3.01	1.095			
H <sub>3</sub> (audit fees)	ALP	2.46	0.878	-0.62	-6.468	0.000
	AIP	3.08	1.178			

NOTES Column headings are as follows: (1) hypothesis, (2) respondents, (3) group statistics: mean, (4) group statistics: std. dev., (5) paired differences: mean, (6) Mann-Whitney U-test, (7) Z\* test.

dependence by the non-parametric ANOVA (Friedman) Test. The results showed that three factors do not have significant differences.

In this part the statistical population are sub-divided into two groups, namely: the first group was those have accounting and auditing literacy skills skills, which according to table 1 amounted to 2009 participants, and the second group included those participants who do not have accounting and auditing literacy skills (142 participants). At this stage the authors wanted to know whether there are there any differences between the literate and the illiterate group? So, Mann-U Whitney is employed at this stage.

Table 3 indicates that accounting literate participants have a different perception than accounting illiterate participants regarding the first hypothesis (Bookkeeping), in other words, although both groups strongly agree that NAS have a negative effect on audit independence, there is a gap between the two groups. As table 4 reveals, the mean value of literate participants stood at 2.36, whereas the mean value of illiterate participants stood at 2.60. So, we can conclude that the illiterate participants strongly agree that proving NAS has a more negative effect on audit independence. As is shown in the table below, the results of the test confirmed that there is a gap between illiterate participants and literate participants on the negative effect of NAS on audit independence.

Returning to the second hypothesis above, the table showed that illiterate participants strongly agreed (mean value 3.01) that managerial consultancy has a negative effect to audit independence, however, the literate participants moderately (mean value 2.50) agreed that managerial consultancy has a negative effect on audit independence. The result of



the test confirmed that there is a gap between the two groups on this matter.

Concerning the last hypothesis, the table above showed that the illiterate participants strongly agreed that audit fees have a negative effect on audit independence, whereas the literate participants moderately agreed with this statement (mean value (2.46)). The results confirmed that in this statement also there is a gap between the two groups of participants.

### **Conclusion and Remarks**

According to the results of this survey, practising NAS to the same clients has strong negative effects on auditor independence. With regard to the review of the above literature on surveys conducted in several countries, the same results have been obtained in Iran, where NAS has a negative effect on audit independence. With regard to the results of table 4, we can conclude that illiterate participants have more negative perceptions than literate participants. In other words, although both groups agree that NAS has a negative effect on audit independence, the literate participants only moderately agree that NAS has negative effects on audit independence. A large gap was found in this area. To close this gap, two options may be available. First, the NAS should be banned as in other countries around the world; and second, illiterate participants should be made aware of more information related to accounting and auditing. In sum, around the world in many countries accounting and auditing legislators have enacted rules and regulations for reducing NAS. However, unfortunately in Iran there still are no such regulations and rules regulating the outcome of such an economical environment in practising NAS to the same clients by the external auditors. Last but not least, it is very interesting to note that the Iran Audit Organisation is the only legislator for enacting accounting regulations, yet unfortunately, this important and vital organization offers both audit legal service and NAS to clients. In a nutshell, to improve external auditors' independence, this organization should enact new rules in this economical environment. Otherwise, the same old story such as another Enron collapse may happen to Iranian corporations.

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