

“Investigating the effective factors on changing auditor: evidences of Iranian firms”

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Investigating the effective factors on changing auditor: evidences of Iranian firms

Abstract

This research will investigate the effective factors on changing auditor. Variables such as company size, audit opinions, audit reporting delay and auditing firm reputation are considered as effective factors on changing auditor. By selecting a sample which consists of 96 listed companies in Tehran's stock exchange during 2010 to 2014 and applying multi-variable regression and econometric models, the results of research shows there is a significant positive relationship among company size, auditor opinion and auditing reporting delay and changing auditor, but there isn't any significant relationship between auditing firm reputation and changing auditor. The findings of this research can fill the researches gap which are performed in this field and can provide accounting information for investors to make decision about stock exchange organization and other stockholders.

Keywords: company size, auditor opinion, auditing report delay, auditing firm reputation, changing auditor.

JEL Classification: M41, M42.

Introduction

The main financial reporting purpose is to provide reassuring information for financial statements' users. This information can be reassuring if an independent and neutral person confirmed its reliability and accuracy. The companies use independent auditing service to confirm financial statements and reassure their clients of financial reliability (Anderson, Koonsi, 2004). Auditing by independent auditors has an important role in improving financial information disclosure and its reliability. Therefore, auditors impersonate the role of a person who supervises company's financial reporting process. Independent auditors can decrease agency costs by identifying and investigating the completeness and accuracy of financial statements. Auditors have a crucial role in decreasing information risk that is the major reason for requesting auditing services. The importance of auditing profession effect on increasing financial statement reliability, changing auditor and its reasons are considered as an important subject in recent decades. Different factors such as opinion difference in financial reporting, auditor opinion, auditor salary and, etc., can affect changing auditor. In addition to legal necessity for financial statements auditing of the companies which are accepted in Tehran's exchange stock, agency theory and message theory are also justifying demand for auditing services. The auditor decreases agency risk that is created by managers and shareholders, large shareholders and small ones or shareholders and creditors conflict of interest. The auditors are faced with interest conflict in performing their jobs because they want to keep professional

standards and framework and on the other hand, they should meet managers' demands. Therefore, if the auditors have an idea which is differed to managers, then, this can lead to interest conflict and finally can make managers change their auditor. Deciding to change the auditor consists of changing current auditor which is performed in order to change auditing quality according to conditions. If the company changes its auditor, then it should bear direct and indirect costs. A couple of variables which can affect choosing auditor will be investigated in this research.

1. Research background

Auditing is a neutral process of dealing with documents and other supporting evident of financial statements to reassure about management's implied propositions and achieving to rational principle for providing professional suggestion to check the suitability of provided financial statements by investigating their conformity to all important aspects of accepted auditing principles. The more sophisticated the economics subjects and the information conversion process, the more difficult problems the information users face in specifying information quality. Also, the complexity of system's information process and its detailed subject can cause mistakes. In these situations, auditing can be considered as equipment, which can assure information users about information quality. The importance of auditor independency made stock exchange commission to issue new set of rules on 21st of November 2000. The professional behavior ordinance which sets by different countries is seeking to provide independence in transactions framework, financial interests and commercial and non-commercial relationships. (De Angelo, 1981) auditing can decrease information asymmetry between managers and shareholders by accrediting financial statements. Two reasons are given for positive relationship between discretionary accruals amount

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and auditing innate risk. First, by considering managerial opportunism, the accruals are tools which managers can apply them for earnings management and for manipulating them to their advantage. Second, the accruals are considered as a problem for auditors, which are related to risky accounts such as receivable accounts and inventories (Ferdinand, 1998). There is a belief in a society that auditing quality confirmation by economic settings in order to endure long-term auditing firms' activity, is too crucial and also auditing profession future is remarkably related to the quality of auditing process output. Also, there is a claim that quality is a major element for auditing firm competition (Herbach, 2001). On the other hand, measuring revenue process and its related result have an important role in running company and generally financial statements' users give too much attention to it. As calculating firm revenue is affected by accounting estimation methods and providing financial statement is one of firm's management responsibilities, the manager may perform earnings management for different reasons (Nazemi, 2010). In general, there isn't any common definition for earnings management, and different researchers are proposed various definitions according to their purposes in this field (Scott, 2009). Scott defined earnings management as selecting policies and accounting procedures in order to reach special objectives. These policies are divided into two categories. One of them is accounting method selection such as straight-line method of depreciation or FIFO approach for evaluating inventories and, etc., and the other category is related to discretionary accruals method. Estimating costs of goods assurance, bad debt provision, and inventory reduction stock value are considered as some of its examples. It is expected of an auditor to report any questionable accounting procedures or important mistakes and violations. In fact this shows the auditor independency and his professional competence. The possibility of exploring violations is related to auditor competency and the possibility of reporting violations is related to his independency. Auditor's market support and actually demand for auditing service is continued until the auditor was able to explore and report breach of contract (Watts and Zimmerman, 1986). Therefore, the current research is seeking for empirical evidence to answer this question that whether the variables such as company size, auditor opinion, auditing report delay and auditing institution reputation affect auditor changing in Iranian capital market or not.

Mohammad and Habib (2013) have investigated the effective factors on mandatory auditor changing by selecting a sample which consists of 200 companies that are accepted in Egypt stock market and their research title was "auditor independency, auditing quality and mandatory changing of auditor". By applying multi-variable regression model, their

research showed that there is a negative significant relationship among auditor's industry profession and reputation and changing auditor and also they figured out that there is a positive relationship among auditing report delay, auditor opinion, auditing salary and changing auditor.

Nezeri et al. (2012) have investigated the effective factors on changing auditor in Kuala Lumpur stock market by applying logistics regression model in a research which its title was the effective factors on changing auditor. This research's statistical model was consisted of 400 listed companies in Malaysian stock market during 2007 to 2010. The research results showed that there is a positive significant relationship among variables such as changing management, company size, auditing firm complexity and auditor opinion.

Fernando et al. (2010) have investigated the relationship between auditing quality and the company equity costs for an 18955 company sample and their research title was "the features of auditing quality, auditing firm size and the company equity costs". The research period was during 1990 to 2004. Three variables as the size of auditing firm, industry profession and auditor tenure are implemented for measuring auditing quality. The research results show that there is a significant negative relationship between the size of auditing firm and the company equity costs. Besides, the results show that professional company owner auditors experience less equity costs than others. They also figured out that if the auditor tenure increases then the equity costs will decrease.

Rasmin (2010) has applied Jones justified model to measure discretionary accruals and earnings management measuring criteria by applying variables such as industry profession and the size of auditing firm as auditing quality measurement indexes. He applied multi-variable regression and financial data of 301 active companies in Singapore stock market to test hypotheses during 2004 to 2008. The results of hypothesis test showed that there is a negative significant relationship between auditing company size and discretionary accruals. Besides, he figured out that the companies which are audited by professional auditors' industry have less discretionary accruals to others.

2. Research methodology

Current research is considered as applied in terms of its objective and it is considered as quasi-experimental events in terms of data gathering in accounting field researches which is performed by applying multi-variable regression and econometric model.

Research's Statistical society constitutes all listed companies in Tehran's exchange market during 2010 to 2014. The selected sample consists of companies which have following sets of conditions:

1. The companies which their accepting date in exchange stock is before 2010 and, was in stock company list to the end of 2014.
2. To increase comparability, companies' fiscal year should end in Esfand 2014.
3. It shouldn't be any change in company activity or fiscal year.
4. They shouldn't be as an investment companies or financial intermediation companies.
5. The transaction's break duration in the mention time interval shouldn't be more than 6 months.

After applying mentioned limitations, 96 companies are selected as our case study sample research. Current data are extracted from financial statements, explanatory notes, headquarters reports, Tehran's stock market statistical archived CDs, stock market web-based database and Tadbirpardaz and Novin software. Final gathered data analysis is done by Stata and Eviews econometric software.

2.1. Hypotheses. To answer research questions based on the empirical studies which are performed by Mohammad and Habib (2013) and Nezeri et al. (2012), following hypotheses have been developed and will be empirically tested:

1. There is a significant relationship between the company size and changing auditor.
2. There is a significant relationship between auditor opinion and changing auditor.
3. There is a significant relationship between auditing report delay and changing auditor.
4. There is a significant relationship between the auditing firm reputation and changing auditor.

2.2. Applied variables and model. The studied variables in this research are consisted of dependent and independent variables which are measured as follows:

- ♦ dependent variable. Changing auditor is considered as a dependent variable in this research. This variable is a virtual one when the company has changed its auditor through the mentioned period, then, number 1 will be assigned to it, otherwise, 0 will be assigned;
- ♦ independent variable. Independent variables which their effects will be evaluated on changing auditor consist of the company size, auditor opinion, auditing report delay and auditors reputation. We will discuss each measurement method in following section.

2.2.1. Firm size. There are different criteria in accounting literature for measuring company size in this case, natural logarithm of annual net sale is applied for measuring company size based on Habib and Mohammad (2013) and Nezeri et al. studies as follows:

$$Size_{i,t} = \text{Log} S_{i,t}$$

Size_{*i,t*} – *i* company size in year *t*;

S_{*i,t*} – net sale of company *i* in year *t*.

2.2.2. Auditor opinion. This is a virtual variable and when financial statement's auditing report of a company is conditional, then, it will be assigned 1, otherwise, 0 will be assigned.

2.2.3. Auditing report delay. In current research, the mentioned variable is measured according to the number of days during the end of fiscal year to audit date of a company's financial statement. This methodology is also applied in Mohammad and Habib (2013) and Nezeri et al. (2012).

2.2.4. Auditing firm reputation. As Nonahal et al. 2013 and Banimahd and Jafari Maafi's research methodology, auditing organization and Rahbar auditing firm are considered as an authentic, famous and large firm; otherwise, the others are considered as low-reputation ones. Therefore, if the company owner auditing was based on auditing organizations and Rahbar auditing firm's period, then, it will be assigned 1 to this variable, otherwise, it is 0.

To test the research hypotheses, multi-variable regression model is applied based on Nezeri et al. (2012).

$$CHANG_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 AUDOP_{i,t} + \beta_3 ARLi,t + \beta_4 BIG_{i,t} + \varepsilon_{i,t}$$

where, in mentioned equation, we have:

CHANG_{*i,t*} – changing auditing firm of company *I* in year;

SIZE_{*i,t*} – company size which is equivalent to natural logarithm of company *I* annual net sale in year;

AUD OP_{*i*} – auditor opinion of company *I* in year *t*;

ARL_{*i,t*} – delay in auditing report of company *I* in year *t*;

BIG_{*i,t*} – auditing firm reputation of company *I* in year *t*;

ε_{*i,t*} – regression's model error.

As combinational data has superiority towards time series or sectional model in terms of number of views, low probability of co-linearity between variables, low bias estimation and heterogeneity of variance (Gujarati, 2009), therefore, to test the theories multi-variable regression model based on combinational data is applied.

3. Empirical result

3.1. Statistical descriptive data. The first step in statistical analysis is the specification of summarized data and calculating descriptive indexes. This research objective is specifying

internal relationships among variables and illustrating that their behavior can be tested in order to provide the basis for statistical analysis and to reveal data descriptive specifications for analysis. The results of descriptive data analysis is consisted of center inclined amounts and dispersion of research variables which illustrated in table below. This descriptive statistics is related to 96 sample companies during 5 year period of 2010 to 2014. The results of descriptive data analysis are summarized as follows:

The data in the table shows that 27% of sample companies have changed their auditing firm during research period in average. The company size which is calculated by company's natural logarithm of annual net sale has an average amount of 11.238 and statistical central of 11.162 which the max and min of this variable equals 10.018 and 12.974, respectively. On the other hand, around 62 percent of auditing reports are conditional, otherwise, are accepted. Besides, around 41% of sampled companies are audited by larger auditing firm s in average.

3.2. Hypotheses test. The results of hypotheses test and performing the model will be revealed in this section. The detailed software output will be shown in specified tables in order to facilitate hypotheses comparability. To test the hypotheses, the following equation has been estimated:

$$CHANG_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 AUDOP_{i,t} + \beta_3 ARL_{i,t} + \beta_4 BIG_{i,t} + \varepsilon_{i,t}.$$

The results of each hypotheses test based on mentioned equation is shown in table below.

Table 1. Research variables

Method: Panel EGLS (Cross-section weights)				
Date: 12/26/15 Time: 22:49				
Sample: 1 480				
Periods included: 5				
Cross-sections included: 96				
Total panel (balanced) observations: 480				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.106703	0.017394	6.134597	0.0000
SIZE	0.044590	0.012398	3.596382	0.0004
AUDOP	0.048444	0.016824	2.879428	0.0043
ARL	0.017230	0.006131	2.810533	0.0053
BIG	-0.021634	0.036832	-0.587387	0.5574
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				

R-squared	0.607112	Mean dependent var	0.356841
Adjusted R-squared	0.578322	S.D. dependent var	0.314477
S.E. of regression	0.142503	Sum squared resid	5.312476
F-statistic	11.02184	Durbin-Watson stat	1.986257
Prob(F-statistic)	0.000000		

By comparing circumstantial evidence of F (11.021) to the amount of F reference table, it can be figured out that the fitted regression model is generally significant at 1% risk level. The amount of justified model's rate shows that independent variables are responsible for 58 percent of dependent variables variations. Also, by investigating statistical circumstances of Watson Camera at 1.98, it can be figured out that there isn't any correlation among regression's model elements. The reason is that statistical circumstances of Watson camera incline to the amount of 2. According to the suitability of fixed regression model and its meaningfulness, the hypotheses are analyzed as follows:

- ◆ First hypothesis states that: there is a significant relationship between the size of company and auditor changing. As it shows in revealed table, the estimation rate and statistical circumstances which are related to company size is positive and it is significant at 1 percent risk level which shows us that there is a positive and significant relationship between company size and auditor changing. According to this situation, the H_0 hypothesis is rejected and the first hypothesis is confirmed at 1 percent risk level.
- ◆ Second hypothesis states that: there is a significant relationship between auditor opinion and auditor changing. As the results of table shows the estimation rate and statistical circumstances of t related to auditor opinion (AUDOP) is positive and significant at 1 percent risk level. According to this situation the H_0 hypothesis is rejected and the second hypothesis is confirmed at 1 percent risk level.
- ◆ Third hypothesis states that: there is a significant relationship between auditing report delay and auditor changing. As the results of table shows the estimation rate and statistical circumstances of t related to auditing report delay (ARL) is positive and significant at 1 percent risk level. According to this situation the H_0 hypothesis is rejected and the third hypothesis is confirmed at 1 percent risk level. Therefore, based on this evidence it can be said that there is a positive significant relationship between auditing report delay and auditor changing.
- ◆ Forth hypothesis states that: there is a significant relationship between auditing firm reputation and auditor changing. As the results of table shows the estimation rate and statistical circumstances of t related to firm reputation (BIG) is negative and it

isn't meaningful. According to this situation, the H_0 hypothesis is confirmed and the forth hypothesis is rejected at 5 percent risk level. It means that there isn't a significant relationship between firm reputation and auditor changing.

4. Results and suggestions

This research's main objective is to investigate the effective factors on auditor changing. The sample which consists of 96 listed companies in Tehran's stock market during 2010 to 2014 is considered for this research and four hypotheses are presented. The results of first hypothesis show that there is a positive and significant relationship between the size of company and auditor changing. This shows that the larger the company the more authentic auditing firm it needs to deal with these large assets in more qualified manner. Also large companies need to employ and implement large and experienced auditing firms, because large companies usually have more complicated operations. This result matches Nasser et al. (2006) Mohammad and Habib (2013) and Nezeri et al. (2012) findings. The results of second hypothesis show that there is a positive and significant relationship between auditor opinion and auditor changing. This shows that managers believe when they change the auditor they can employ the one which has the close opinion to theirs. Mohammad and Habib (2013) and Nezeri et al. (2012) found the same results as this. The results of third hypothesis show that there is a positive relationship between auditing report delay

and auditor changing. This means that the value of financial data auditing is decreased as auditing report is delayed, because the users are seeking needed information from various resource. Besides, the delay in auditing report has an inverted effect on financial reporting speed. As one of qualitative data features is the lack of delay and being timeliness, so when the auditing report doesn't provided in a specified time then the auditor will be changed. This reality matches Mohammad and Habib (2013) and Nezeri et al. (2012) findings, which reflects the positive relationship between auditing report delay and auditor changing. The results of forth hypothesis show that there isn't any significant relationship between auditing firm reputation and auditor changing. While previous studies have shown that as larger auditing firms have more clients and have higher reputation in market, therefore, these firms present auditing services with higher quality in order to keep their reputation and have more availability to resources and accommodations. As a result, smaller auditing firms with lower reputation change their auditor in order to benefit from auditing firms which have higher reputation and better service quality. But current research doesn't confirm this relationship. One of the main reasons which can justify this situation is applying different measures for measuring auditing firm reputation in various researches. Besides, if the auditing firm were public, then it could intervene investigating auditing quality and reputation.

References

1. Abu Thahir Abdul Nasser, Emelin Abdul Wahid & Sharifah Nazatul Faiza Syed Mustapha Nazri. (2006). Auditor-client relationship: the case of audit tenure and auditor switching in Malaysia, *Managerial Auditing Journal*, 21 (7), pp. 724-737.
2. AICPA. (1997). *In the Public Interest: A New Conceptual Framework for Auditor Independence*. New York: AICPA.
3. Alastair, Lawrence, Minutti-Meza, Miguel and Zhang, Ping. (2011). Can Big 4 versus Non-Big 4 Differences in Audit-Quality Proxies Be Attributed to Client Characteristics? *The Accounting Review*, 86 (1), pp. 211-259.
4. Anderson, U., Kadous, K. & Koonce, L. (2004). The role of incentives to manage earnings and quantification in auditors' evaluations of management-provided information, *Auditing: A Journal of Practice & Theory*, 23 (1), pp. 11-27.
5. Basu, S. (1997). The Conservatism Principle and the Asymmetric Timeliness of Earnings, *Accounting Economic*, 24, pp. 3-37.
6. Catanach, Anthony and Walker, Paul. (1999). The International Debate over Mandatory Auditor Rotation: A Conceptual Research Framework, *Journal of International Accounting, Auditing & Taxation*, 8 (1), pp. 43-66.
7. Charles, J.P., Chen, X.S. and Wu, X. (2010). Auditor Changes Following a Big 4 Merger with a Local Chinese Firm: A Case Study, *Auditing: A Journal of Practice and Theory*, 29 (1), pp. 41-72.
8. Chow, C.W. and Rice, S.J. (1982). Qualified Audit Opinions and Auditor Switching, *The Accounting Review*, 155 (2), pp. 326-335.
9. Chung, H. (2004). *Selective Mandatory Auditor Rotation and Audit Quality: an Empirical Investigation of Auditor Designation Policy in Korea*. Working paper, Purdue University.
10. Constantinos, C., Clive, L. (2008). Audit effort and earnings management, *Journal of Accounting and Economics*, 45, pp. 116-138. Available at: www.sciencedirect.com.
11. Davidson, W.N., Jiraporn, P. and Dadalt, P. (2006). Causes and Consequences of Audit Shopping: An Analysis of Auditor Opinions, Earnings Management, and Auditor Changes, Quarterly, *Journal of Business and Economics*, 45 (1-2), pp. 69-87.

12. Davis, L.R., Soo, B. and Trompeter, G. (2000). *Auditor Tenure, Auditor Independence and Earnings Management*. Working Paper, Boston College.
13. De Angelo, L.E. (1981). Auditor Size and Quality, *Journal of Accounting and Economics*.
14. Diana Mustafa Mohamed & Magda Hussein Habib. (2013). Auditor independence, audit quality and the mandatory auditor rotation in Egypt, *Education, Business and Society: Contemporary Middle Eastern Issues* 6 (2), pp. 114-116.
15. Ferdinand A. Gul, Judy S.L. Tsui & Charles J.P. Chen. (1998). Agency costs and audit Pricing: evidence on discretionary accruals. Available at: www.ssrn.com.
16. Francis J.R. and Wilson E.R. (1988). Auditor Change: A Joint Test of Theories Relating to Agency Cost and Auditor Differentiation, *The Accounting Review*, October, pp. 663-683.
17. Hamilton, J., C. Ruddock, Stokes D. and Taylor S. (2005). *Audit partner rotation, earnings quality and earnings conservatism*. Working paper, University of Technology, Sydney, and University of New South Wales.
18. Herrbach, O. (2001). Audit quality, auditor behaviour and the psychological contract, *The European Accounting Review*, 10 (4), pp. 787-802.
19. Huson, Joher, Ali. M and Shamsheer M. (2000). The Auditor Switch Decision of Malaysian Listed Firms: An Analysis of Its Determinants and Wealth Effect, *The Capital Market Review*, 8 (1-2), pp. 1-23.
20. Jeff P.B., Inder K.K, Raman K.K. (2010). Do the Big 4 and the Second-tier firms provide audits of similar quality? *Journal of Accounting and Public Policy*, 29 (2010), pp. 330-352. Available at www.sciencedirect.com.
21. Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and capital structure, *Journal of Financial Economics*, 3, pp. 305-360.
22. Johnson, W.B. and Lys T. (1995). The Target for Audit Services: Evidence from Voluntary Auditor Change, *Journal of Accounting and Economics*, No. 12, pp. 281-308.
23. Knapp, M. C. and Elikai F. (1988). Auditor Changes: A Note on the Policy Implications of Recent Analytical and Empirical Research, *Journal of Accounting, Auditing and Finance*, 3 (1), pp. 78-86.
24. Krishnan, J., Raghunandan, K. and Yang, J. (2007). Were Former Andersen Clients Treated More Leniently than other Clients? Evidence from Going-Concern Modified Audit Opinions, *Accounting Horizons*, 21 (4), pp. 423-435.
25. Levitt, A. (1998). *The Numbers Game*. Speech delivered at the NYU Center for Law and Business. New York, NY (September 28).
26. Li, D. (2007). *Auditor Tenure and Accounting Conservatism*. PhD Dissertation, Georgia Institute of Technology.
27. Schwartz, K.B. and Menon, K. (1985). Auditor Switches by Failing Firms. *The Accounting Review*, 60 (4), pp. 248-261.
28. Scott, William. (2009). *Financial accounting theory*. Canada: Prentice Hall, Canada Inc.
29. Sharifah Nazatul Faiza Syed Mustapha Nazri, Malcolm Smith and Zubaidah Ismail. (2012). Factors influencing auditor change: evidence from Malaysia, *Asian Review of Accounting*, 20 (3), pp. 222-240.
30. Sinnett, W. (2004). Are there good reasons for auditor rotation? *Financial Executive*, 20. pp. 29-32.
31. Walker P.L. Lewis B.L. and Casterella J.R., (2001). Mandatory auditor rotation: Arguments and current evidence, *Accounting Enquiries*, 10 (2).
32. Watts, R. and Zimmerman, J. (1986). *Positive accounting theory*. USA: Prentice-Hall, Englewood Cliffs, New Jersey.
33. Woo, E. S. and Chye Koh H. (2001). Factors Associated with Auditor Change: A Singapore Study. *Accounting and Business Research*, 31 (1), pp. 133-144.