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Investigation of Relationship between Ownership Concentration and Auditing Fees in listed firms of Tehran Stock Exchange

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Abstract

This study investigates the relationship between ownership concentration and auditing fees of listed companies in Tehran Stock Exchange. The level and nature of external audit fees requested by organizations, depends on three descriptive elements such as the firm size, complexity of operations and audit risk. Researches indicated that ownership structure of company as one of the key components of corporate governance can impact on audit fees through impacting on these three descriptive elements**.** Since every classes of investors have different goals and motivations for their investment; in this investigation, the Ownership concentration, as two effective group of shareholders in ownership structure, was investigated from the two aspects of Institutional and managerial; and 114 listed companies in Tehran Stock Exchange in a period of 2007-2012 years were chosen as a sample**.** This study is descriptive correlation based on panel data analyzing, the results showed that the negative relation between institutional ownership concentration factor with the audit fee and a negative relation between concentration factor in the company's board of directors and the auditing fee is accepted in Tehran Stock Exchange.

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Keywords: Institutional ownership concentration, Managerial ownership concentration, Audit fees, Board of Directors

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Introduction

Nowadays, investing in company's stocks is so common among individual and institutional investors. Furthermore, individuals tend to obtain information through various resources in order to make a good investment. Ordinarily, most investors and stockholders objective in investing in company's stocks is to increase wealth and to obtain more profit. After formation of joint stock companies and also separation of ownership from management and selection of managers as representatives for owners, economists found that not only all groups which are related to joint stock companies don't act for a same goal, but also they have opposite benefits. In addition to economic activities, companies are also responsible for being answerable regarding stakeholders. Based on the studies, the most important form of replying to stakeholders is financial reporting (Setayesh & Kazemnejad, 2010). In fact, requirement of company's ownership is derived from the opposition among people in company's structure (Ebrahimi Kordlar, 2007).

In recent years, concentration on ownership and its effect on different dimensions of companies among developing economies and also Asian and European infant markets is mentioned as one of the important issues of ownership structure. Ownership concentration may cause positive changes in organization by increasing the monitoring and also removing fake financial reporting. But, other mechanisms may act reversely. One of the problems which discussed more is that it is possible that managers' owners and major stockholders use company's benefits for their own purposes and exploit other stockholders. Ownership concentration will motivate important stockholders and this will lead to greater investment in the company and also better management controls. Basically, studies about corporate governance has mentioned the opposition between managers and stockholders (agency problem type 1). But, based on studies, stockholders ownership is more concentrated. Because, weak support of stockholders motivate them to collect more stocks in order to have a better control on company's managers. As a result, in countries with weaker supports of stockholder, agency problem type one will decrease, but the problem between major and minor stockholders will increase (agency problem type 2). Expropriation or wealth transfer risk from minor stockholders may increase the demand for auditing and will lead to an increase in auditing fees. In this view, auditing is a monitoring cost which depends on agency problem's degree (Mitra etal, 2007). Auditing mission is to give credit to financial reporting and also make a good certainty for financial statements' users. Furthermore, audits will benefit from auditing fees (Mehrani and JamshidiIvanaki, 2011). Institutional investors are other groups which play an important role in ownership structure and due to their capability in professional analyzing of financial statements, they are completely distinct from other owners. This group of owners pay too much attention to information quality and based on their natural characteristics and their influence on management, they pursue them to use high quality auditing services and ultimately, lead to greater auditing fees (Dargahi and pashanejad, 2012).

The objective of the present research is to investigate the effect of board of directors' characteristics on auditing fees in listed companies of Tehran stock exchange. This will help managers, investors and other decision makers to understand the effect of (institutional and managerial) ownership concentration on listed firms' auditing fees. In other words, low or high ownership concentration will change the auditing fees of companies.

In this research, it will be investigated that whether a relationship exists between ownership concentration and the degree of auditing fees or no? And ultimately, it will be analyzed that if ownership concentration (major stockholders) will affect auditing fees or no?

Literature review

Several researches have done in many countries regarding auditing fees and its measures. The root to all these findings is the Simunik study in Chicago University (1979) when he worked on his PhD thesis (Mehrani and JamshidiIvanaki, 2011).

Beasley and Saltrio (2001) investigated the company's ownership characteristics for measuring auditing level which ultimately affect the auditing fees. Mitra et al (2007) in a research titled "the effect of ownership structure on auditing fees" investigated the relationship between ownership structure and auditing fees in 335 listed firms of NYSE which were audited by 5 big auditing institutes. They concluded that a reverse and significant relationship exists between institutional investors' ownership (greater than 5 percent) and auditing fees. This is because of active monitoring and ownership concentration which lead to lower agency costs and lower financial reporting risks. Ultimately, they showed a reverse relationship between managerial ownership stocks and auditing fees. In conclusion, findings of this research showed that ownership combination is a key factor in determining auditing fees via its effect on auditing process and audit's understanding of customer's risk.

Han Kang et al (2008) in a research titled "the relationship between institutional ownership and auditing characteristics" investigated that how institutional ownership can affect the quality and risk of auditing the financial statements. Based on the results, long-term institutional investors will demand higher quality for auditing in order to develop the monitoring process of the company and on the other hand, audits know short-term institutional investors as a stimuli for management to make false reports and as a result, they suppose a higher risk for auditing process.

Azibi et al (2010) showed a direct relationship between external institutional investors and auditing quality in French companies during 2001-2007. They also found that when agency cost increase due to ownership decentralization and lack of effective monitoring of owners, the demand for auditing with higher qualities will increase.

Rahman Khan et al (2011) studied the company's ownership concentration on auditing fees in emerging economies. Based on the results, sponsored auditing fees and institutional investors' ownership concentration have negative and significant relationship. This shows that in Bangladesh, when companies were controlled through sponsors (e.g. owners' family) and institutional investors, they pay lower auditing fees.

Ben Ali (2011) analyzed if audits can be used as a monitoring mechanism for decreasing the agency problems among major and minor stockholders. In an environment with centralized ownership and weak support of stockholders, centralized stockholders can easily expropriate others and benefit from controlling advantages. In spite of these, this opposition is less likely to happen. The results showedthat: 1) a negative relationship exists between auditing fees and managerial ownership and this relationship is greater in countries with higher support of stockholders. 2) A curve like relationship exists between auditing fees and controller stockholders, in countries with weak support of stockholders. 3) Agency problems among major and minor stockholdersare lower in countries with high support of stockholders.

Yin and Hang (2011) in a study titled "the relationship among ownership structure, boardof director's independence and auditing fees" investigated that whether different types of ownership structure will affect relationship between corporate governance and auditing fees. The results showed a significant and reverse relationship among dormant members of board of directors and auditing fees.

Desender et al (2011), in an investigation of the relationship between corporate governance and auditing fees, found that auditing services and board of directors' independence are complementary when ownership is dispersed. In other words, centralized ownership and board of directors' combination are good substitutes for each other and also they concluded that a relationship exists between board of directors' combination and auditing fees. Kim et al investigated the motivation of CEO and auditing fees after accruals and found that call option is positively related to auditing fees. Furthermore, they found a positive relationship between CEO's call option and abnormal auditing fees after accruals in companies with lower efficiency in corporate governance.

Ho et al (2012) investigated the relationship between institutional ownership and auditing fees. The sample consisted of 1428 listed firms of China stock exchange in 2008. The findings showed that companies which are controlled by central government will pay lower auditing fees in comparison to companies which are controlled by local government.

Ben Ali and Lessage (2012) in a research titled "auditing prices and controller stockholders' nature: the case of France" were tried to answer the question that if audits were used as monitoring mechanism to decrease the agency costs or no. they applied Simunik (1980) auditing fees model to investigate the effect of controller stockholders on listed firms of France stock exchange. Based on the results, a direct relationship exist between auditing fees and institutional investors.

Kasay (2013) investigated the relationship between accruals and abnormal auditing fees in a research titled "ownership structure and auditing quality in Japan". The results showed that high auditing fees put audit's independence at risk and as a result, will lead to low quality of auditing. Based on the results, high number of institutional stockholders will lead to high quality of accruals. Furthermore, institutional investors will balance the relationship among auditing quality and auditing fees.

Rahimian et al (2011) in a research titled "the role of institutional owners in quality of listed firms of Tehran stock exchange" using three criteria of size of auditing company, auditing expertise in industry and type of auditing report. To do so, multi variable logistic regression was applied. The findings showed that companies with higher levels of institutional ownership have higher auditing quality and in contrast, institutional ownership concentration will lead to decrease in auditing quality.

Malekian et al (2012) in a research titled "investigating the relationship among corporate governance, auditing fees and ownership level of listed firms of Tehran stock exchange" showed a weak relationship among corporate governance structure, financial reporting and the problem of internal control. The research findings about the relationship of corporate governance and auditing fees denoted a negative relationship between instruments and the percentage of dormant members of board of directors and auditing fees in listed firms of Tehran stock exchange. Talebtabar (2011) in a research titled "the relationship between board of directors' characteristics and auditing fees" analyzed if board of directors' characteristics in Iran has a relationship with independent auditing fees or no? The findings showed a negative relationship between auditing fees and the percentage of dormant members of board of directors and auditing fees in listed firms of Tehran stock exchange. In addition, they concluded that the relationship between CEO dichotomy and auditing fees is stronger in dispersed ownership.

Research Methodology

Research Hypotheses

H1: There is a significant relationship between institutional ownership concentration and auditing fees.

H2**:** There is a significant relationship between managerial ownership concentration and auditing fees.

Research Methods and Materials

The research method is field study and it is based on real data that is extracted from Tadbir Pardaz and Rahavard Novin softwares. Data were analyzed using Excel and Eviews softwares.

Statistical Population, Sample and Sampling method

The statistical population consists of all listed companies of Tehran stock exchange until the end of financial year of 2012. Based on the systematic deletion of the following criteria, 114 listed firms of Tehran stock exchange during years of 2007-2012 were selected:

- End of financial year should be 19^{th} of March.

■ Companies shouldn't be financial or investment companies.

■ Companies shouldn't change their financial year during the period of study.

■ Financial data of the company should be available.

After data collection and determining the model, Chow test has been applied for determining composite data or fixed effects model. As a result, if the probability of the test is less than 5 percent, the effects model is fixed. In order to test the fixed effects or stochastic model, Hausman test was used. That is, if the Hausman test probability is less than 5 percent, the model should be estimated using fixed effects. Ultimately, the research hypotheses was investigated by comparing R_2s.

Data analysis technique

Composite data and multi variable logistic regression were used in this research. Furthermore, in order to investigate the model's significance T, F, R_2, Adjusted R_2andcorrelation variation tests were applied. After estimating the model with Eviews software, Durbin-Watson test was used to investigate the autocorrelation. The results showed an autocorrelation and AR data were applied to solve the problem.

Research Model

In order to investigate the first and second hypotheses, the following regression model is used:

$$\text{Total Audit Fees}_{i,t} = \alpha_0 + \alpha_1 \text{ INSH}_{i,t} + \alpha_2 \text{ OWNBH}_{i,t} + \alpha_3 \text{ SIZE}_{i,t} + \alpha_4 \text{LEV}_{i.t} + \alpha_5 \text{ROA}_{i,t} + \alpha_6 \text{ BIGN}_{i,t} + Є_{i,t} \quad (1)$$

Research variables and their operational definitions

Dependent variable

In this research, *auditing fees* is used as a dependent variable. Economic benefits of audit is satisfied through auditing fees. Auditing fees are any earnings achieved from auditing services (Mehrani and Jamshidi Ivanaki, 2011).

Amani and Davani (2009) stated that if users of auditing reports want to achieve its real expectation, auditing fees should be compatible with auditing services. In fact, the price of each service or product is a value of the product or service which the customer tends to pay. But, this formula can't be used in countries with lack of competitive economy and the pricing system in these countries are exclusive. Low auditing fees that lead to low quality auditing services will put the auditing role at risk and thus, certainty of auditing reports will go under question. This shows that auditing services have low quality in Iran. In other words, audit selection in Iran is based on tender (Amani and Davani, 2009).

Independent variables

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Institutional ownership concentration: Based on Azibi et al (2010) definition, in order to calculate institutional ownership level, all stocks of banks and insurance companies, holdings, pension trusts, investment companies, financing companies, investment trusts, public organizations and institutions should divide by total number of issued stocks.

Managerial ownership concentration: Sixth principle of OECD[1] (2004) about corporate governance make fiduciary as a compulsory duty for board of directors which consists of two components of care and loyalty (Jamshidi Ivanaki, 2010).

Based on corporate governance system, the main responsibility of board of directors is to make efficient governing of company affairs toward stockholders' benefits and to balance different stockholders' benefits including customers, employees, investors and local communities (Carcello et al, 2000).

In order to calculate institutional and managerial ownership concentration, Herfindahl-Hirschman index were used. Herfindahl-Hirschman index is an economic index which measure the exclusive level of the market. Based on these, stocks percentage of each institutional and managerial owner powered by two and also summed together. The result is between zero and one. The closer the results to one, the greater concentration exists. In reverse, the closer the results to zero, the lower concentration exists.

Controlling variables

Company's size index: In this research, natural logarithm of capital market value was applied to measure auditing company's size.

Risk index: Financial leverage of the company which calculates through the division of company's debts by its assets.

Assets Return: Which calculates through the division of net profit of loss of each period by total assets.

Type of auditing institute: One if the company was audited and zero if the company wasn't audited.

Research findings

Findings of descriptive statistics

Table (1) shows the descriptive statistics of the research. Reported statistics consists of indices and central measures of average, mean and also dispersed indices of variance and standard deviation.

Based on table (1), in average, 37 percent of company's stocks are in the hands of institutional stockholders (institutional ownership concentration) and 19 percent of stocks are in the hands of members of board of directors (managerial ownership concentration). Furthermore, 0.36 percent of studied companies during 2007-2012 were audited and

[1]- Organization of Economic Cooperation and Development

approximately all companies have separated the president's and also CEO's duty from each other.

Table 1 Descriptive statistics results of the sample firms

Total Audit Fees $_{i,t} = \alpha_0 + \alpha_1$ INSH $_{i,t} + \alpha_2$ OWNBH $_{i,t} + \alpha_3$ SIZE $_{i,t} + \alpha_4$LEV $_{i.t} + \alpha_5$ROA$_{i,t} + \alpha_6$ BIGN $_{i,t} + Є_{i,t}$					
Type of variable	Variable	Average	Mean	Variance	Standard Deviation
Dependent	Auditing fees	12.326	12.142	2.349	1.533
Independent	Institutional Ownership Concentration	36.576	41.295	738.474	27.175
	Managerial Ownership Concentration	18.625	6.400	608.365	24.665
Controlling	Firm Size	11.033	10.764	3.135	1.771
	Type of audit	0.353	0.000	0.229	0.478
	Risk Index	0.455	0.446	0.072	0.268
	Asset Return	0.260	0.242	0.071	0.266

Research Hypotheses tests

According to table (2), Chow and Hausman tests results admitted the fixed effects model estimations and the probability of F statistic equals to 0.0000. This shows that the model is accepted statistically. Based on the results of the main test, as it is shown in table (2), P-value of F statistic is 0.0000 which means that the regression model is significant in 99% level of significance. Adjusted R_2 equals 0.888 which denotes that approximately 89% of dependent variable's variation can be determined by the model's variables.

Table 2 Results of the regression model

Variable	Coefficient	T statistic	Probability	Level of Significance
Auditing fees	-2996665.0	-10.86256	0.00000	99%
Institutional ownership concentration	-1409.485	-2.011343	0.0448	95%
Managerial ownership concentration	-2946.595	-3.073728	0.0022	99%
Firm size	380176.1	15.28347	0.0000	99%
Type of audit	39523.81	1.118392	0.2639	-
Risk index	153926.0	2.292800	0.0222	95%
Assets return	-420351.7	-5.106990	0.0000	99%
R_2	Regression's Standard Deviation	F statistic	F probability	Durbin-Watson
0.890	0.315	399.05	0.0000	1.623

First hypothesis test

According to table (2), the coefficient of institutional investors' concentration equals to -1409.48. Based on T statistic and P-value, the results showed that this coefficient is significant in 95% level of significance. This coefficient shows that when institutional stockholders' concentration increases, auditing fees decreases. In controlling variables, firm size and financial leverage (risk index) have significant and positive relationship with auditing fees which means if the size of the firm is bigger, the risk of the firm is higher and therefore, they should pay higher auditing fees. The results of the research is compatible with Mitra et al (2007) and Rahman Khan et al (2011) but in contrast with Ben Ali and Lessage (2012).

Second hypothesis test

According to table (2), coefficient of variation of board of directors' concentration equals -2946.5. Based on T statistic and P-value of this variable, the coefficient is significant in 99% level of significance. This coefficient shows that if the board of directors' ownership concentration increases, the auditing fess decreases. In other words, if the company is bigger, the risk is higher and therefore, the auditing fees are higher. The results of the study is compatible with Yin and Hang (2011) and Ben Ali (2011).

Conclusion

In this research, the relationship between ownership concentration and auditing fees was investigated. To do so, the monitoring role of institutional stockholders and board of directors and their relationship with company's ownership characteristics were studied.

The results of the first hypothesis test show a negative relationship between institutional ownership concentration and auditing fees which means companies with higher institutional ownership concentration will pay lower auditing fees. Institutional owners of the company will increase the auditing fees due to their special attention high quality auditing services and their internal characteristics. On the other hand, based on personal benefits' theory, the concentrated institutional owners may have accessibility to company's internal information and thus, don't tend to offer high quality financial information to the market and ultimately, this will lead to lower auditing fees. Therefore, dispersed institutional stockholders will increase auditing fees. The results of the second hypothesis test show a negative and significant relationship between managerial ownership concentration and auditing fees which means a company with higher managerial ownership concentration will pay lower auditing fees.

The findings of the research shows that both institutional and managerial ownership concentrations affect the auditing fees and high or low ownership concentration may cause a difference in auditing fees of listed firms of Tehran stock exchange.

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