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The Impact of Audit Quality and Ownership Structure on Earnings Management of Listed Firms on Tehran Stock Exchange

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Abstract: In this study, the impact of audit quality and ownership structure on earnings management of listed firms on Tehran Stock Exchange is studied. In this research, the auditor reputation, auditor tenure, ownership concentration and institutional ownership as a indicator of audit quality and ownership structure have been used. Also, the absolute value of discretionary accruals model of modified Jones as a direct indicator of earnings management have been used. In order to respond the questions of this study, four hypothesis has been made and 100 firms from listed firms on Tehran Stock Exchange 5 years (2009-2013) has been tested. This study is descriptive of correlation type and to test the hypotheses, multiple linear regression model with panel data and fixed effects is used. The results of research hypotheses show that auditor reputation, auditor tenure and institutional ownership have a significant and negative impact on earnings management. On the other hand, ownership concentration have a significant and positive impact on earnings management.

Key words: Audit quality, ownership structure, earnings management, Stock Exchange, discretionary accruals

INTRODUCTION

In economic affairs to make decisions and perform analysis, users need to accurate and reliable information and naturally a lack of appropriate and relevant information might jeopardize their decisions. Figures and financial reports are an important part of the required data for this process. The results f numerous empirical studies prove the idea that earnings is considered the most important source of information and decision-makers rely on the earning more than any other criteria (Saghafy and Sadidi, 2007). However, it should be noted that earning as the most important source of information, may not reflect the actual performance of companies and their management.

In order to avoid such problems, the company must be equipped with control mechanisms to ensure that the equity capital is not misappropriated or used for non-usable purposes. This means that the company must guarantee that the agency costs stay as minimum. Corporate governance is the system by which business corporations are monitored and controlled (Kouaib and Jarboui, 2014).

Studies show that poor disclosure in financial reports and lack of transparency of information on companies causes problems due to the separation of ownership from management to increase (Fan and Wong, 2005). In the meantime, independent audit that is considered as a measure of external control effective on corporate governance protects the rights of all stakeholders in the company through accreditation to the financial statements, ensuring reliability and confirming the quality of financial information. Moreover, investors, creditors and other stakeholders to evaluate the financial performance of the various business units and decision-making on the various investment opportunities rely on the results of the audit performed by valid independent audit companies. Thus, the greater the auditor reputation, the value, reliability and acceptability by the users of the financial statements increase and consequently earnings management and agency costs reduce (Ashbaugh *et al*., 2003). One of the other factors that limits earnings management is audit firm's tenure. In the case of auditor tenure two theories are important; first, auditor tenure gradually decreases auditor's independence that in long run may result in loss of motivation and weaker goals by auditors, due to a close relationship with management (Gul *et al*., 2007). On the other hand, opponents argue that a long tenure helps auditors' to acquire better knowledge and experience about their customers as a result this experience may cause the quality of audit to increase (Manry *et al*., 2008).

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Another external controlling factor which affects corporate governance is ownership structure. Ownership structure or shareholders' composition refers to how is the distribution of equity or ownership rights in terms of votes and capital as well as the nature and identity of the equity owners. The researchers believe that the increased ownership concentration and institutional ownership provides sufficient incentive to monitor management which ultimately will reduce earnings management. In contrast, some believe that the high ownership concentration and institutional ownership may move in line with their own interests and to the detriment of minority shareholders and other stakeholders (Miglani *et al*., 2015).

The establishment of an effective corporate governance system which can be fulfilled in light of interaction between external and internal control standards effective on corporate governance will align the interests of managers and owners in one direction (Fama and Jensen, 1983) and improve the company's performance and companies grow and spread (Shleifer and Vishny, 1997). The results of many empirical studies conducted in other countries show that good corporate governance leads to better performance of company and lower earnings management (Kouaib and Jarboui, 2014).

Jerry and Lin (2009) in a study titled, audit quality, corporate governance and earnings management, measure the audit quality using three criteria of the auditor size, auditor industry specialization and auditor tenure and found these criteria have negative relationship with earning management.

Gul *et al*. (2013) investigate the role of ownership structure and corporate governance in reducing earnings management. The results showed that a higher percentage of institutional, corporate and managers ownership reduce the level of earnings management.

Inaam *et al*. (2012) in a study titled, audit quality and earnings management in Tunisia, investigate the impact of audit quality (auditor size, auditor industry specialization and auditor tenure) on limiting the amount of real earnings management (manipulation of real activities) and accruals based earning management. The results indicate that industry specialist auditors and auditors of four big audit firms are associated with lower levels of accrual-based earnings management. Also there is a significant positive relationship among four big audit firms auditors and real earnings management. In addition, they found that no relationship exists among increasing auditor tenure with real earnings management and accruals based earnings management.

Kouaib and Jarboui (2014) investigate the impact and relation of audit quality and ownership structures on earnings management of Tunisia's industrial and commercial firms. Therefore, audit quality criteria included auditor reputation and auditor tenure, and the ownership structures criteria included the ownership concentration and institutional ownership and earnings management included discretionary accruals. Their results suggest that only the auditor reputation on earnings management have a significant negative impact on both industries. Also, only the interaction between auditor reputation and ownership concentration had a significant negative impact on the earnings management of industrial companies. Finally, the interaction of audit firm size and institutional ownership had a significant negative impact on earnings management and interaction of auditor tenure and institutional ownership had a negative significant effect on earnings management. Lakhal (2015) investigated the relationship between ownership structure and earnings management in companies and France's securities exchange companies. Results showed that family ownership, institutional investors and numerous large shareholders have a negative impact on earnings management and thus good corporate governance limits the authorities of management. This research shows that investors have a regulatory role in the company. Nonahal-Nahr *et al*. (2013) assessed the impact of audit quality on earnings management in firms listed in Tehran Stock Exchange. The results regardless of the control variables indicate that larger audit firms and longer tenure of auditors have a negative impact on earnings management in the new firms listed in Tehran Stock Exchange. However, by adding control variables results showed no effect of a larger audit firms on earnings management and audit longer tenure had a negative impact on earnings management in new firms listed in Tehran Stock Exchange. Mehrazin *et al*. (2013) examined the relationship between non-family ownership of firms and earnings management. The results showed that there is a significant relationship between the structure of corporate ownership and earnings management, where on average more non-family companies do more earnings management. Darabi and Emamjomeh (2014) examined the impact of ownership structure on the accuracy of their earnings forecasts. The findings indicate that no significant relationship exists between the percentage of equity ownership (large and small) and earnings forecast accuracy.

Thus, this study aims to show whether audit quality and ownership structures affect earning management or not.

MATERIALS AND METHODS

The managers' inclination to earning management and abusing thorough providing incorrect information to the shareholders seriously damages the trust of shareholders, their interests and might cause them to leave the stock market. This would eventually lead to serious economic consequences. Thus, because of the importance of preserving the confidence of shareholders and subsequently maintain the economic health of the country corporate governance is seeking to achieve ways in which financiers ensure that they will receive a suitable return from investment in the company. The corporate governance seeks to promote justice, transparency and accountability in the company. The establishment of an effective corporate governance system in light of the interaction between external mechanisms (which are mostly composed of rules and regulations) and internal mechanisms that are more discretionary can lead to good management, reduction of information asymmetry problems, increasing the trust of shareholders and finally reduction of earnings management. Hence, the hypotheses are formulated as follows:

- The first hypothesis: the auditor reputation has a significant impact on earnings management
- The second hypothesis: auditor tenure has a significant impact on earnings management
- The third hypothesis: the ownership concentration has a significant impact on earnings management. The fourth hypothesis: institutional ownership has a significant impact on earnings management. The statistical population of this study includes all listed firms on Tehran Stock Exchange during 2009-2013

To test the hypothesis, the following regression model will be used:

$$EM_{i,t} = \alpha+\beta_1 AR_{i,t} +\beta_2 AT_{i,t}+\beta_3 OC_{i,t} +\beta_4 IO_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \varepsilon_{i,t}$$

Where:

$EM_{i,t}$ = Earnings management of firm i in year t
$AR_{i,t}$ = Auditor reputation of firm i in year t
$AT_{i,t}$ = Auditor tenure of firm i in year t
$OC_{i,t}$ = Wnership concentration of firm i in year t
$IO_{i,t}$ = Institutional ownership of firm i in year t
$SIZE_{i,t}$ = Size of firm i in year t
$LEV_{i,t}$ = Financial leverage of firm i in year t
$\varepsilon_{i,t}$ = Model errors

Test of the normal distribution of dependent variable: Using the Jarque-Bera test normal distribution of dependent variable is examined. Jarque-Bera test results are presented in Table 1. As observed in the above table, due to the significance of variable is more than 0.05 so the hypothesis H_0 of normal distribution of variables at 95% will be approved.

Table 1: Results of Jarque-Bera test variables

Variable	Test statistic	Probability	Result
EM	1.700666	0.427273	H_0 Accepted

Table 2: The results of the selection model to estimate model of research

Type of test	Test statistic	Probability	Result
Chow test	3.075659	0.0000	Panel method
Hausman test	23.150557	0.0000	Performance fixed effects

Table 3: Results of research hypotheses

Variables	Coefficient	Std. error	t-statistic	Prob.
C	-0.392166	0.129502	-3.028267	0.0026
AR	-0.023925	0.005205	-4.596855	0.0000
AT	-0.019624	0.003747	-5.236952	0.0000
OC	0.036805	0.014999	2.453889	0.0145
IO	-0.061689	0.015469	-3.987923	0.0001
SIZE	0.031020	0.009141	3.393329	0.0008
LEV	0.037652	0.016245	2.317776	0.0209

Cross-section fixed effects test equation: Dependent variable: EM; Method: Panel EGLS (cross-section weights); sample: 1388 1392; included observations: 5; cross-sections included: 100; total pool (balanced) observations: 500; R^2 = 0.653356; Adjusted R^2 = 0.507677; F-statistic = 3.112018; Durbin-Watson Stat. = 2.336168; Prob. (F-statistic) = 0.000000

Test research hypotheses: In this study, for the research hypotheses, the related model has been estimated and test of actuarial assumptions related to them will be done. Firstly, the result of beforehand choosing model for selecting method of the choosing appropriate regression model for combined data of first to forth hypotheses is provided in Table 2 and 3.

According to the results of the Chow test, since the Chow test significance level is >0.05 (0.0000), anisotropy of intercept is verified and panel data methods should be used in estimating. Also according to the results of the Hausman test, since the level of significance of the test is >0.05 (0.0000) there is verified and fixed effects model should be estimated using the fixed effects approach.

The results of estimating the model and also the test results and the assumptions of the classical regression are provided in Table 3.

In the overall significance of model, due to the significant level (Sig.) F-statistic is smaller than (0.050) with a significant 95% of the overall model is confirmed. Determining factor model also suggests that 50.7% of the earnings management are explained by changing the variables in the model. Moreover, since the camera Watson value is a number between 1.5 and 2.5 (2.336), therefore the independence of the rest of the model is confirmed.

Testing the first hypothesis: Regarding the results obtained from the estimation of model provided in Table 3, for auditor reputation the level of significance is 0.0000 and lower than 0.05 and the coefficient of this variable is -0.023925 as a result, this hypothesis is confirmed. In fact, the auditor reputation has a significant negative effect on earnings management.

Testing the second hypothesis: Regarding the results obtained from the estimation of model provided in Table 3, for auditor tenure the level of significance is 0.0000 and lower than 0.05 and the coefficient of this variable is -0.019624 as a result this hypothesis is confirmed. In fact, the auditor tenure has a significant negative effect on earnings management.

Testing the third hypothesis: Regarding the results obtained from the estimation of model provided in Table 3, for ownership concentration the level of significance is 0.0145 and lower than 0.05 and the coefficient of this variable is 0.036805 as a result, this hypothesis is confirmed. In fact, the ownership concentration has a significant positive effect on earnings management.

Testing the fourth hypothesis: Regarding the results obtained from the estimation of model provided in Table 3, for institutional ownership the level of significance is 0.0001 and lower than 0.05 and the coefficient of this variable is -0.061689 as a result this hypothesis is confirmed. In fact, the ownership concentration has a significant negative effect on earnings management.

RESULTS AND DISCUSSION

One of the components of the financial statements used as a benchmark to evaluate the performance and ability of profitability units is earnings reporting. The calculation of net income of an entity is affected by the practices and accounting estimates. For more information of managers of the company's situation, it is expected to prepare and present information in a way that best reflects the company's situation. But for reasons such as trying to survive in the enterprise, rewards, etc., business unit management may intentionally or unintentionally manipulate the earnings so that the company's situation seem favorable. Under such circumstances, the real earnings may conflict with the reported earnings in the financial statements and events and earnings management occurs. The overall objective of auditors is to protect the interests of shareholders against significant distortions and errors in financial statements and in the meantime, managers' incentives to impose their personal interest in the quality of earnings prevents auditors from reaching their goals. In contrast, auditors can increase the quality of audit in order to discover potential earnings management by managers and pressure the managers regarding earnings management. On the other hand, audit quality that determines the performance of audit is a function of several factors such as auditor capabilities (including knowledge, experience, adaptability and technical efficiency) and professional performance (including independence, objectivity, professional care, conflict of interest and judgment). Auditor quality also refers to the auditor's reputation and professional care, where increased credibility of financial statements is a result of the auditor's reputation and auditor's monitoring and professional care will increase the quality of financial information. Another parameter for evaluation of auditor quality is the term of auditor's tenure. As the tenure of auditor increases, his/her recognition of the employer and the specific industry will increase leading to higher quality of auditor. On the other hand, a long tenure may challenge the independence of auditor and reduce the quality of audit. In addition to audit quality, corporate governance reports indicate that the ownership structures has the ability to exercise control over the actions of firm managers, and play the main role in creating many of the changes in their corporate governance systems. Institutional investors have a powerful place in the company's governance that can effectively monitor and influence the company's management and to align the interests of shareholders by penetrating in the management. In contrast, the high ownership concentration allows this group to use their controlling rights for personal gain and exploitation of other shareholders.

The results of statistical analysis the first hypothesis indicate that, the auditor reputation has a significant negative effect on earnings management. The reason for this may be due to the fact that well-known audit firms have larger customers, therefore, expectation of market to detect distortions in the financial statements of auditors will increase. In addition, evidence suggests that well-known audit firms have superior audit quality compared to smaller institutions because of enjoying the resources and better facilities for training auditors who perform the audit. So when a client makes a contract with a renowned institution this action reflects the importance of the client and audit quality, and on the other hand, reducing earnings management. Furthermore, by increasing audit quality the client's internal conflicts is reduced and investor views about the company can improve. The result of this hypothesis is consistent with research conducted by Nonahal-Nahr *et al.* (2010, 2013), Jerry and Lin (2009), Inaam *et al.* (2012) and Kouaib and Jarboui (2014).

The results of statistical analysis the second hypothesis indicate that the auditor tenure has a significant negative effect on earnings management. This may be because the process of rotation of audit firms through cutting a long-term relationship between the client and the auditor would provide independence of auditors but this process makes the quality of audit services in the early years after the rotation to reduce because of the fact that new institutions are not familiar enough with company's activity and industry. In fact, auditors obtain a better recognition of the activities of the employer and also of the corporate organizational structure, internal control and bottlenecks and thus their ability to know whether the accounting and reporting policies are appropriate or not increases. The rotation of audit firms is therefore less words, more auditor tenure, increase audit quality and consequently reduced earnings management. The result of this hypothesis is consistent with research conducted by Nonahal-Nahr *et al.* (2013) and Jerry and Lin (2009), however inconsistent with Inaam *et al.* (2012) and Kouaib and Jarboui (2014).

The results of statistical analysis the third hypothesis indicate that the ownership concentration has a significant positive effect on earnings management. The reason for this may be due to the fact that a high ownership concentration allows this group to use their controlling rights for personal gain and exploitation of other shareholders. When major shareholders hold a major part of company's stock the possibility of earnings management increases to be more responsive toward their needs and demands this leads to reduced informative content of earnings for minority shareholders. Usually, major shareholders are more reluctant to disclose firm's information in the market in order to hid confidential information from other investors and beneficiaries and conceal the plans and policies of firm which are often in favor of their own interests. The higher ownership concentration creates more opportunities and negative undisclosed benefits for controlling shareholders. The result of this hypothesis is inconsistent with research conducted by Darabi and Emamjomeh (2014).

The results of statistical analysis the fourth hypothesis indicate that, the ownership concentration has a significant negative effect on earnings management. The reason for this may be due to the fact that if the firm ownership is held by institutional holdings, greater monitor can be applied to the activities of managers. This type of shareholders due to the high volume of investment and professionalism in their work, rather than focusing on short-term profitability targets, pay attention to maximizing the firm value in long-term. This group of shareholders are more concerned about long-term prospects of the company and has powerful incentives for active participation in the activities of corporate governance and monitoring of firms and can contribute to reduction of earnings management. The result of this hypothesis is consistent with research conducted by Gul *et al.* (2013) and Lakhal (2015), however inconsistent with Darabi and Emamjomeh (2014).

CONCLUSION

The results of this study could be argued that the establishment of an effective corporate governance system in shadow of the impact between the measures of auditor reputation, auditor tenure and institutional ownership, earnings management will reduced.

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