The Role of Ownership in the Earning Quality: Evidence from Listed Firms of Tehran Stock Exchange

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ABSTRACT

In recent years, earning quality has increasingly attracted attention. Despite many studies on earning quality, it is still one of the most important and challenging subjects of financial debates. This study evaluates the role of institutional and corporate ownerships on the earning quality of TSE-listed firms. The population of study consisted of all TES-listed firms which were active in the study scope (i.e. from 2010 to 2014). Considering some restrictions, 80 firms were selected as the study size and their data was collected, summarized and analyzed. The hypotheses of this study were examined using the regression technique and the outputs of the model derived by this study. Data was collected by referring to the financial reports of the studied firms, the databases of capital market, the professional site of Tehran Stock Exchange and Tadbirpardaz and Rahavard Novin software. The results of study revealed that both institutional ownership and corporate ownership affect the earning quality of TSE-listed firms.

JEL Classifications: G30; G31; G39.

Keywords:Corporate Ownership; Earning Quality; Institutional Ownership; TSE-Listed Firms.

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1. INTRODUCTION

Centralized ownership structure and its effects on different dimensions of firms, including earning, has been discussed in recent years as an important subject of corporate ownership literature due to its prevalence in many countries, especially in developing economies and European and Asian newly established markets. The centralization of ownership may induce positive changes to earning through promoted supervisions. However, other mechanisms may function in opposite direction (Hassas & Shahriari, 2009). Different studies on the definition of the concept of earning quality hint two important features. The first one is its usefulness in decisions and the second one is associated with the relationship of this concept with economic profit. In better words, high-quality earning means the usefulness of earning data in users' decisions and its closeness to economic profit. Limited financing, investment opportunities, size of companies, and pressures from stockholders and supervisor authorities are important determinants of earning level (Rose & Hudgins, 2008).

According to different studies, there is a significant relationship between ownership and earning quality. In addition, empirical evidences reveal that there is a positive relationship between the presence of institutional investors and market response to earning issuance. Institutional stockholders can be divided into passive and active categories. The former group has a great portfolio turnover with instantaneous dealing strategy while the latter one has long-term vision and considers the long-term performance of the company (Rose & Hudgins, 2008).

Based on this discussion, this study aims to evaluate the role of ownership in the earning quality of TSE-listed firms. This study contributes to the finance literature in the sense that its analysis focuses on financial analysis at micro level of firms. However, a great number of studies in the literature till the moment has studied the role of financial institutions in the macro economies of countries (Sodeyfi, 2016; Dalgin et al., 2012; Kalim et al., 2012; Berument & Dogan, 2011; Katircioglu & Feridun, 2011; Rjoub, 2011; Karacaer & Kapusuzoglu, 2010; Chimobi, 2010; Michailidis, 2008; Siddiqui, 2008; Gokgoz, 2007; Fethi & Katircioglu, 2015; Kaushal & Pathak, 2015; Chandio, 2014; Gungor et al., 2014; Fethi et al., 2013; Katircioglu, 2012; Roy, 2012; Saqib & Waheed, 2011; Barisik & Tay, 2010; Gungor & Katircioglu, 2010; Jenkins & Katircioglu, 2010; Khakimov et al., 2010; Waheed

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& Younus, 2010; Nazlioglu et al., 2009; Agu, 2008; Hachicha, 2008; Kuryanov, 2008; Katircioglu et al., 2006; Soukhakian, 2007; Soukhakian, 2007).

2. THEORETICAL FUNDAMENTALS

2.1 Earning Quality

2.1.1 Definition of Earning Quality

Today, earning quality is an interesting and challenging subject in auditing studies. Since investors consider earning as an important factor affecting their decisions, studies on this field are of high importance in terms of behavior (Ansari et al., 2014, p. 42). Authors in the financial literature imply that earning quality reduces the informational content of audit figures (Etemadi et al., 2012, p. 103) where definitions generally concentrate on the managers' opportunistic dimension in the meaning that managers may manipulate earning with opportunistic aims.

2.1.2 Influential Factors of Earning Quality

Earning quality incentives: Accounting literature is full of incentives and aims leading to earning quality including receiving managerial compensations, reducing political costs, increasing company value and attracting capital (Ansari et al., 2016, p. 43).

Debt theory: This theory predicts that if a commercial unit makes a contract with creditors based on audit figures in order to receive loan, the creditor will enforce limitations and terms to the commercial unit such as having a given debt ratio (Banimahd and Ameri, 2012, p. 2).

Opportunistic and efficacy vision: This vision assumes that if a contract is made between a commercial unit and different groups based on audit figures, the manager will try to manipulate the figures in order to achieve his/her personal benefits such as more compensation (Banimahd and Ameri, 2012, p. 3).

2.2 Ownership

Moein dictionary defines "ownership" as a right of human in association with something where human is entitled to manipulate it except legally forbidden manipulations (Gharib, 2014). The structure of ownership has been introduced as the most important parameter affecting the valuation of companies and their orientation in capital markets. Maximizing the value of companies demands the execution of profitable projects. In today's world, the determination of a fit financing approach for maximizing the profitability and survival of companies is an essential practice considering the conditions of the competition market (Abdollahi & Shahnaz, 2011). The ownership of companies includes institutional ownership, corporate ownership, managerial ownership and private ownership. They are explained as below:

- Corporate ownership is a very complex process. It is the responsibilities of the board of executive managers and approaches they use to determine the strategic path guaranteeing the achievement of targets, controlling risks and responsible consumption of resources (Coffey & Fryxell, 1991).
- Institutional ownership is highly motivated to supervise financial reporting. Financial statements, especially profit and loss statements, are important resources of information about the firms (Shen and Gentry, 2012).
- Possessing the shares of firms it administers, managerial ownership is motivated to invest on projects with positive net expected value (Shen and Gentry, 2012).
- Private property: private property assumes that the considered property is for a given person or persons. It can be in the form of individual or group ownership (Gholami, 2014).

3. STUDY BACKGROUND

Ittonen et al. (2013) found in a study that there is a relationship between audited earning quality and the gender of audit partners. They measured the quality of audited earning through discretionary accruals (earning quality) and showed that those firms which are audited by a female have lower earning quality compared with other firms.

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Another finding of this study was that earning quality in such firms, both maximizing and minimizing earning, was lower than other firms. Asli et al. (2012) investigated the relationship of earning quality with market liquidity. They employed three criteria to assess the earning quality. One of them was accruals and the other two criteria associated with actual earning quality criteria are namely: operating cash flow and discretionary costs. They used Amihud and kiwi measures of illiquidity to assess the market liquidity. According to their results, there was a direct significant relationship between discretionary cost-based earning quality anomaly (actual earning management) and illiquidity measure. Xu et al. (2012) evaluated 1438 firms listed in Shanghai Shen Zhen stock exchange and found that state independent firms with no political relationships have higher earning quality. In addition, they showed that the more the ownership of foreign stockholder in the composition of stockholders, the higher is the earning quality. They compared firms with public ownership, employees' ownership and the ownership of other institutes and showed that there is no significant difference in earning quality between the firms. The findings of Chambers and Payne's study (2011) titled "audited earning quality and accrual anomaly" indicate that there is a negative relationship between the operational yield associated with accrual anomaly and auditing quality. In another study, they concluded that as audit quality increases and Sarbanes-Oxley Act is used, the reliability of accruals in financial statements increases.

Chen et al. (2011) studied the effect of political costs on earning quality in Chinese firms. They showed that states apply political pressures on firms during economic revolution and the firms involve in earning quality to mitigate such pressures. They showed that earning quality is higher in non-public firms than other firms. Ghodrati and Feizi (2015) studied the effect of corporate ownership on earning quality. They examined the study hypotheses on data of 73 TSE-listed firms during a 6-year period (2006 to 2011). Setayesh et al. (2013) studied the relationship of the components of intellectual property and earning quality in TSE-listed firms. Their results showed that the relationship of intellectual property and its components with earning quality is not significant. This means that TSE-listed firms do not manage the earning of their firms by disclosing their intellectual property and use this advantage to apply earning quality.

4. THEORETICAL MODELING AND METHODOLOGY

Institutional ownership affects the earning quality of TSE-listed firms. Corporate ownership affects the earning quality of TSE-listed firm. Estimations are done using multivariate regression models as follows:

$$AA - BAL_{it} = \lambda_0 + \lambda_1 INST - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$$

$$AA - BAL_{it} = \lambda_0 + \lambda_1 COP - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$$

 $AA - BAL_{it}$: Earning quality

 $INST - OWN_{it}$: Institutional ownership $COP - OWN_{it}$: Corporate governance

 MV_{it-1} Market value of the shares of firm I at year t-1 MTB_{it} : Price to book ratio (P/B) of firm I at year t

LEV_{it}: Debt to total assets ratio of firm I at year t

 $SIZE_{it}$: Natural logarithm of the sum of the assets of firm i

The population of this study consisted of firms listed in TSE from 2010 to 2014. Samples were selected using the screening method. Eventually, data of 80 firms was collected and analyzed. This is an Ex post facto research in terms of time where the hypotheses of study are examined based on previous data of firms. In addition, it is a research-applied study in terms of target because the obtained results can be directly used by users for decision making purposes. It is an analytical study where the stated hypotheses are examined using the obtained results. The relationship between two variables is discovered by correlation technique using panel data regression model. The data of this study consists of the financial reports of TSE-listed firms derived and computed from relevant databases by which study models were built in order to provide a base for examination of hypotheses. Data was collected from Rahavard Novin software as well as TSE website and analyzed using Eviews.

Independent Variables

-Institutional Ownership (INST-OWNit)



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Institutional ownership is referred to the potential ability of influencing managers' activities which is directly practiced by ownership and indirectly practiced by share exchange (Ben-Nasr, 2015). Institutional ownership is the square of the sum of the shares of institutional investors divided by the total common stock of the firm at the end of period (Almutairi, 2013). Investors of institutional firms mean insurance companies, financial institutes, banks, public companies and other components of the government (Nazemi at al., 2014).

-Corporate Ownership ([COP-OWN]_it)

Corporate ownership seeks for rules, instructions and processes adopted to make decisions on the firms' affairs and to supervise the performance of firms within relevant rule and procedure frameworks in order to control the conflict of interests and data asymmetry between stakeholders and to provide a structure by which the organizational targets are realized (Nazemi et al., 2014). Corporate ownership equals to the percent of stocks, out of total capital stock, kept by joint-stock companies and includes different joint-stock companies (Nazemi et al., 2014).

Dependent Variables

- Earning Quality ([AA_BALL]]_it)

Earning quality is managers' practices in commercial units for controlling the fluctuations of reported earnings (Libby et al., 2015). Earning quality is calculated as follows (Ben-Nasr, 2015):

$$\frac{CAC_{it}}{TA_{it}} = \theta_0 + \theta_1 \frac{CFO_{it-1}}{TA_{it}} + \theta_2 \frac{CFO_{it}}{TA_{it}} + \theta_3 \frac{CFO_{it+1}}{TA_{it}} + \theta_4 DCFO_{it} + \theta_5 DCFO_{it} * \frac{CFO_{it}}{TA_{it}} + \varepsilon_{it}$$

CAC_{it}: current accrual of firm i at year t which is derived from the following relation (Ben-Nasr, 2015):

$$\Delta CA_{it} - \Delta CL_{it} - \Delta CASH_{it} + \Delta STDEBT_{it}$$

 ΔCA_{it} : changes of current assets of firm i at year t-1 (Ben-Nasr, 2015)

 ΔCL_{it} : changes of current debts of firm i at years t-1 and t (Ben-Nasr, 2015)

 $\Delta CASH_{it}$: changes of cash flow and cash equivalent of firm i at years t-1 and t (Ben-Nasr, 2015)

ΔSTDEBT_{it}:changes of short-term and long-term debts of firm i at years t-1 and t (ben-Nasr, 2015)

 TA_{it} :mean of total assets of firm i at years t-1 and t

CFO_{it}:cash flow of firm i at year t which is derived from the following relation (Ben-Nasr, 2015)

$$NIBE_{it} - CAC_{it}$$

 $NIBE_{it}$: net income of firm i at year t before extraordinary items (Ben-Nasr, 2015)

 CFO_{it-1} :cash flow of firm i at year t-1 (Ben-Nasr, 2015)

$$CFO_{it+1}$$
: cash flow of firm i at year t+1 (Ben-Nasr, 2015)
 $DCFO_{it}$: If $\frac{CFO_{it}}{TA_{it}} - \frac{CFO_{it-1}}{TA_{it}} < 0$, $\frac{CFO_{it}}{TA_{it}} - \frac{CFO_{it-1}}{TA_{it}}$ will be 1, otherwise it will be zero (Ben-Nasr, 2015).

Control Variables

 MV_{it-1} :stock market value of firm i at year t (Ben-Nasr, 2015)

MTB_{it}:market to book value of firm i at year t (Ben-Nasr, 2015)

LEV_{it}:leverage of firm i at year t (Ben-Nasr, 2015)

 $SIZE_{it}$:natural logarithm of the sum of total assets of firm i

5. EXAMINATION OF RESULTS

As mentioned above, this study uses multivariate regression models to examine the hypotheses of study as follows:

$$\begin{array}{l} AA-BAL_{it}=\ \lambda_0+\lambda_1 INST-OWN_{it}+\lambda_2 SIZE_{it}+\lambda_3 MV_{it-1}+\lambda_4 MTB_{it}+\lambda_5 LEV_{it}+\varepsilon_i\\ AA-BAL_{it}=\ \lambda_0+\lambda_1 COP-OWN_{it}+\lambda_2 SIZE_{it}+\lambda_3 MV_{it-1}+\lambda_4 MTB_{it}+\lambda_5 LEV_{it}+\varepsilon_i \end{array}$$

Examination of hypothesis 1:

"Institutional ownership affects the earning quality of TSE-listed firms"

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Table 1. Multivariate Regression Results -1

| $AA - BAL_{it} = \lambda_0 + \lambda_1 INST - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$ | | | | | | | |
|---|------------------------------|-------------------------|----------------------|------------------------------------|-------------|------------|-------------------|
| (Pooled) | | | | Dependent variable $AA - BAL_{it}$ | | | |
| Variables | Coefficient of determination | Modified coefficient of | Standard coefficient | Deviation | t-statistic | Sig. level | Durbin- Watson |
| | | determination | S | | | | statistic |
| Intercepts | 0.188 | 0.091 | 0.550 | 0.046 | 11.802 | 0.000 | 2.054 |
| INST_OWN | | | 0.122 | 0.004 | 8.433 | 0.015 | |
| SIZE | | | 0.103 | 6.281 | 6.086 | 0.030 | |
| MV | | | 0.092 | 0.058 | 1.419 | 0.156 | |
| MTB | | | 0.083 | 6.217 | 0.634 | 0.526 | |
| LEV | | | 0.372 | 0.583 | 9.123 | 0.001 | |

Considering t statistic and its coefficient derived for variables, it can be argued that the relationship of institutional ownership, firm size and financial leverage with earning quality is positively significant in a confidence level of 95%. Despite the positive relationship of stock market value and market to book the value ratio with earning quality, this relationship is not significant. Durbin-Watson statistic is close to 2. Therefore, the lack of autocorrelation assumption is met and it is not necessary to remove the autocorrelation. The coefficient of determination is 0.188 implying the extent of the influence of the independent variable (institutional ownership) on the dependent variable (earning quality) and the explanation of the latter by the former. In addition, the relationship between institutional ownership and earning quality is significant at error level of 0.05 (sig. level<0.05). This implies that this hypothesis is confirmed and there is a significant relationship between institutional ownership and earning quality. The final model of the study after excluding non-influential variables is as follows:

Table 2. The Final Model of Study After Excluding Non-Influential Variables

| $AA - BAL_{it} = \lambda_0 + \lambda_1 INST - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$ | | | | | | | |
|---|----------------|----------------|-------------|------------------------------------|-------------|------------|-----------|
| (Pooled) | | | | Dependent variable $AA - BAL_{it}$ | | | |
| Variables | Coefficient of | Modified | Standard | Deviation | t-statistic | Sig. level | Durbin- |
| | determination | coefficient of | coefficient | | | | Watson |
| | | determination | S | | | | statistic |
| Intercepts | 0.188 | 0.091 | 0.550 | 0.046 | 11.80298 | 0.000 | 2.054 |
| INST_OWN | | | 0.122 | 0.004 | 8.433169 | 0.015 | |
| SIZE | | | 0.103 | 6.281 | 6.086 | 0.030 | |
| LEV | | | 0.372 | 0.583 | 9.123 | 0.001 | |

[✓] Evaluation of hypothesis 2

Table 3. Multivariate Regression Results -2

| $AA - BAL_{it} = \lambda_0 + \lambda_1 COP - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$ | | | | | | | |
|--|----------------|----------------|-------------|------------------------------------|-------------|------------|-----------|
| (Pooled) | | | | Dependent variable $AA - BAL_{it}$ | | | |
| Variables | Coefficient of | Modified | Standard | Deviation | t-statistic | Sig. level | Durbin- |
| | determination | coefficient of | coefficient | | | | Watson |
| | | determination | S | | | | statistic |
| Intercepts | 0.196 | 0.042 | 0.525 | 0.541 | 4.971 | 0.031 | 2.049 |
| COP_OWN | | | 0.942 | 0.595 | 11.007 | 0.004 | |
| SIZE | | | 0.170 | 6.747 | 10.320 | 0.007 | |
| MV | | | 0.129 | 0.059 | 6.489 | 0.065 | |
| MTB | | | 0.320 | 8.486 | 3.129 | 0.097 | |
| LEV | | | 0.163 | 8.465 | 8.137 | 0.014 | |



[&]quot;Corporate ownership affects the earning quality of TSE-listed firms"

Considering t statistic and its coefficient derived for variables, it can be argued that there is a relationship of institutional ownership, firm size and financial leverage with earning quality which is positively significant in a confidence level of 95%. Despite the positive relationship of stock market value and market to book value ratio with earning quality, this relationship is not significant. Durbin-Watson statistic is close to 2. Therefore, the lack of autocorrelation assumption is met and it is not necessary to remove the autocorrelation. The coefficient of determination is 0.196 implying the extent of the influence of the independent variable (corporate ownership) on the dependent variable (earning quality) and the explanation of the latter by the former. The coefficient of regression between institutional ownership and earning quality is positive indicating a positive relationship between corporate ownership and earning quality. In addition, the relationship between corporate ownership and earning quality is significant at error level of 0.05 (sig. level<0.05). This implies that this hypothesis is confirmed and there is a significant relationship between corporate ownership and earning quality.

The final model of the study after excluding non-influential variables is as follows:

Table 4. The Final Model of Study After Excluding Non-Influential Variables

| $AA - BAL_{it} = \lambda_0 + \lambda_1 COP - OWN_{it} + \lambda_2 SIZE_{it} + \lambda_3 MV_{it-1} + \lambda_4 MTB_{it} + \lambda_5 LEV_{it} + \varepsilon_i$ | | | | | | | |
|--|----------------|----------------|--------------|------------------------------------|-------------|------------|-----------|
| (Pooled) | | | | Dependent variable $AA - BAL_{it}$ | | | |
| Variables | Coefficient of | Modified | Standard | Deviation | t-statistic | Sig. level | Durbin- |
| | determination | coefficient of | coefficients | | | | Watson |
| | | determination | | | | | statistic |
| Intercepts | 0.196 | 0.042 | 0.525 | 0.541 | 4.971 | 0.031 | 2.049 |
| COP_OWN | | | 0.942 | 0.595 | 11.007 | 0.004 | |
| SIZE | | | 0.170 | 6.747 | 10.320 | 0.007 | |
| LEV | | | 0.163 | 8.465 | 8.137 | 0.014 | |

6. CONCLUSION AND SUGGESTIONS

This study evaluated the role of corporate ownership in the earning quality of TSE-listed firms from 2010 to 2014. The conducted analyses revealed that the relationship of both institutional ownership and corporate ownership with earning quality is significant. The following suggestions can be put forward based on the findings of this study:

- 1. Considering the relationship between institutional ownership and earning quality, it is suggested that the earning of firms with highly out-organizational centralized ownership, is more reliable than firms with dispersed ownership structure. In addition, it is notable that the existence of several owners in a firm raises earning quality when compared to firms with a single main owner because the obtained results indicate that a single owner reduces the earning quality.
- 2. Considering the relationship between institutional ownership and earning quality as well as the results of Hypothesis 1, it is suggested that individuals pay attention to this relationship in their investment selection and purchasing shares. They are recommended to invest on firms with highly centralized ownership structure in order to gain more profit.
- 3. Considering the relationship between institutional ownership and earning quality as well as the results of Hypothesis 1, it is suggested that TSE and Audit Organization, as two references developing auditing standards, pay more attention to the quality of audit information and information disclosure. Naturally, the determination of that portion of financial data which are more susceptible to manipulation as well as emphasizing standards which more subject to this matter can aid the realization of the final target of capital market which is the fair proration through a fit assessment.
- 4. Considering the relationship between corporate ownership and earning quality as well as the results of Hypothesis 2, it is suggested that owners make decisions for their firms and to supervise the performance of rules and procedures within the framework of the set rules, instructions and procedures in order to control the conflict of interests as well as information asymmetry between stakeholders and to provide a structure by which the organizational targets are realized and in turn the firm profitability increases.



5. Considering the relationship between corporate ownership and earning quality as well as the results of Hypothesis 2, it is suggested that the role and place of auditing and supervisory mechanisms in providing high-quality information as well as the role of contract theory and agency theory is studied more accurately during the issuance of reports.

Limitations of Study

Taking step in the way of targets has always been accompanied with limitations. The main limitations of this study experienced by the researcher are as follows:

- 1- The variables of this study were calculated based on the financial statements derived from historical cost data. Therefore, if the data is modified in accordance with inflation rate, different results may be obtained.
- 2- This study has a small size and this was a limitation of it. Since the population of this study is limited to TSE-listed firms with fiscal year ending to March, the generalization of results to other firms may be practiced carefully.
- 3- TSE-listed firms provided non-homogenous data about the number of stockholders and the percent of their stocks which was another limitation of this study. For example, some firms only disclosed the percent of the stocks of legal and natural persons. The reason might be the fact that some stockholders who do not wish to unveil their influence on the firms request to issue incomplete reports.
- 4- Earning quality is a concept that is affected by many variables. However, this study failed to control other variables within available time and capability framework.

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