Influence of Ownership Structure on Earning Quality in the Listed Firms of Tehran Stock Exchange

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Abstract

The main goal of this study is to analyze the relation between ownership centralization and institutional ownership with the earning quality. Studying factors which influence the earning quality can lead to better decision making by investors and it is finally arise by public awareness and also leads to proper resource allocation. Different ownership structures influence differently performance of company, earning quality, degree and manner of management control and so on. Research sample consists of the listed firms in Tehran stock exchange during 2006-2010. Independent variable in this study is ownership centralization and institutional ownership. Dependent variables (the six criteria for evaluating the earning quality) areas follows: operating cash ratio to operating earnings, accruals volume, persistent growth rate of earning, gross earnings ratio, earning persistence, receivable accounts quality. Linear regression and correlation analysis, Fisher test and t-testate used for examining the research hypotheses. Subsidiary hypotheses tests show that there is a significant relation between ownership centralization with persistent growth rate of earning and earning consistent and institutional ownership with gross earnings ratio and earning persistence, but there is no significant relation between ownership centralization and institutional ownership with the other criteria for evaluating earning quality. In general, results show that there is a positive (direct) relation between ownership centralization and institutional ownership with earning quality index, but it is not so significant.

Keywords: Ownership Centralization, Institutional Ownership, Earning Quality, Accruals Volume, Earning Persistence

1. Introduction

Financial statements are one of the most important products of accounting systems, one of the most important goals of which is to provide necessary information for evaluating businesses' performance and profitability. One of the basic financial statements is the income statement which contains a key item, net earnings (Khoshtinat & Esmaeili, 2005).

Net earnings are calculated by accrual basis method. This method is one of the most basic and underlying methods of accounting, which has some drawbacks in spite of various advantages. The most important drawback is that numbers, especially those indicating earnings, are not objective as compared to the cash basis (Karami et al, 2005). On the other hand, evaluating, judging about different accounting trends enable managers to make decisions about income and expenses (Saghafi & Kordestani, 2004). This information gap makes the reported and managed earnings incompatible with the actual performance of businesses. Firm managers attempt to manage earnings because of reporting their own optimal earnings (Teoh et al, 1998). Internal and external researches have confirmed earnings management of firms. Managers influence earning quality by passing their opinion on it.

Reviewing the debate over earning quality is important since reducing earning quality is not desirable, and it leads, in a micro-structural view, to incorrect decision-making by investors, and, in a macro-structural view, leads to non-optimal resources allocation (Schiper & Vincent, 2003).

The significance of this study is that, it indicates concretely and empirically to managers, investors, creditors, and other beneficiaries and decision makers that differences in ownership structures can influence earning quality of the listed firms in Tehran stock exchange.

2. Literature Review

2.1 Earnings Quality

In recent years, financial scandals have happened, because of which investors' confidence in the financial reporting system has decreased and earning quality has emerged as an important factor in determining reliability of financial reports (Saghafi & Kordestani, 2004). "Earning quality" has diverse definitions in the literature, and there is no consensus over it. (Khajavi & Nazemi, 2005)

This diversity can be a result of different views of the researchers on the different dimensions of this concept. Therefore, earning quality is of a complex nature, and no researcher has ever been able to define it comprehensively or has found a complete index for it (Karami et al, 2005).

Different researchers have suggested different concepts for earning quality, which are as follows:

- Compatibility with the real earnings (Schipper&Vincent, Hodge, Wolk, Prat, Kirschenheiter, & Melumad)
- Earnings persistence and invariability (Richardson et al, Revsine et al, Bodie et al, Williams,Bellovary)
- The capability of previous earnings for predicting the future earnings and cash flows(Mikhail, et al, Penman, & Bellovary)
- The degree of conservatism applied in calculating earnings (White, et al)
- Approximate of earnings to cash(Harris, Penman)
- Accruals volume(Dechow, Dechov, & Sloan)
- Representation of operational capabilities (Chan, et al)

2.2 Ownership Structure:

There are different ownership structures in different firms. Different ownership structures influence differently company performance, the degree and manner of management control and so on (Namazi & Kermani, 2008).

Since, in the ownership combination of most listed firms of Tehran stock exchange, there are institutional stockholders and major stockholders(centralized ownership) who can exert more control because of the company management theory in comparison with the other stockholders, this study attempts to investigate the influence of the institutional ownership on earning quality.

2.3 Centralized Ownership and Earning Quality

Now this question arise that which ownership combination is efficient in earning quality. Ownership centralization may cause positive changes in firm with increasing control, but other mechanisms may act reversely. One of the problem that we focused on it is that major shareholders and managing shareholders my use their own control rights to obtain individual benefit and exploit other shareholders (Shleifer & Vishny, 1986)

Schipper (Schipper, 1989) says that ownership centralization cause management behavior improvement in respect to low quality earning report and at last promote the earning quality. There are two challenging hypothesis.

Individual benefit advocators believe that there is high possibility to secret information about transaction. When ownership centralized this problem seems justifiable that major shareholders use their control right to get benefit and exploit minor shareholders (Velury & Jenkins, 2006). This issue shows negative relation between ownership and earning quality.

In support of this negative relation, strategic unity hypothesis imply that block holders and managers use conspiracy to their own benefit and this conspiracy decrease the control on managers that may increase the firm value and influence negatively understanding of other shareholders about earning quality (Ebrahimi & Aerabi,2010).

2.4 Institutional Ownership and Earning Quality

The institutional investors can exert control over the company management. According to the definition of Bushee (Bushee, 1998) institutional investors are major investors like banks, insurance firms, investment companies and etc.

There are different combinations of stockholders in different companies. There are some minor stockholders and natural persons in every company. These people mostly rely on the publicly available information like the published financial statements in order to control management performance. On the other hand, there are some other major professional stockholders in every company who have access to the useful internal information about the future perspective, business

strategies, and so on by direct contact with the management (Nouravesh & Ebrahimi, 2005). It is generally assumed that the presence of the institutional stockholders may change the behavior of the other investors (Bushee, 1998).

In recent years, the number of institutional investors, compared to other stockholders of the listed firms of Tehran stock exchange, has increasingly raised. The quantity and quality of the presence of these investors among other investors is considerable because of the influences that they have on ownership structure and also on performance.

Theoretically, institutions may have some motivation for active management control, a typical example of which is as follows: institutions will actively manage and control their investments because of the high amounts of investments they make (Sheifer & Vishny, 1986).

When institutional investors exert more control over company management than when they are mere investors, it is expected that earning quality increases because they are able and motivated to encourage high quality earnings reports (Velury & Jenkins, 2006).

There are two intellectual schools which deal with the role of institutional investors. One states that institutional stockholders tend toward short term earnings. These investors are temporary ones that pay more attention to current earnings than long term ones in determining stock pricing. But the other states that when a few investors (especially institutional ones) have the company stocks under control, then there is no separation between ownership and control. According to this view, therefore, it is assumed that institutional investors play a controlling role and their presence decreases earnings management possibility (Bushee, 1998).

Kim (Kim, 1993) acknowledges that confidential information which is elicited for business purposes are available for big institutional investors. In this case, they may have little interest in encouraging managers to report high quality earnings.

Hashim and Devi (Hashim & Devi, 2006) concluded that family ownership and institutional ownership play significant roles in explaining the reported earning quality. Also, a higher number of family members in a company's management board will probably increase the company's reported earning quality. Moreover, they showed that an increase in the number of institutional investors plays a positive role in determining earning quality. On the other hand, no significant relation was found between the management board independence and earning quality.

Bartov et al (Bartov, et al, 2000) believe that institutional owners are professional investors who have long-term focus. With respect to the amount of their investments and their know-how, they serve to control the management.

Balsam et al (Balsam, et al, 2000) state that institutional investor, are more able to manage earnings than non-institutional investors, because they have access to the relevant and timely information.

Chung et al (Chung, et al, 2002) provide evidence of the claim that institutional investors prohibit management from managing accruals in order to obtain the desirable level of earnings.

Koh (Koh, 2003) showed that there is a non-linear and concave relation between institutional investment and earnings management, that is, with an increase in the number of institutional investors, earnings management rises (the temporary ownership area of institutional investors) till it reaches its maximum, and after passing the maximum point (this point is %3.54 in this study) the relation between the two variables reverses (the long-term ownership area of institutional investors).

Velury and Jenkins (Velury & Jenkins, 2006) examined earning quality in the conceptual framework of FASB. They focused on the two dimensions of earning quality, and concluded that with an increase in institutional ownership, earning quality improves. In this case, earnings enjoy a higher relevancy and reliability.

Mirada (Mirada, 2008), in a research about Tehran stock exchange, examinedthe controlling role of institutional investors with this question in mind whether institutional ownership influences the reported earning quality. Generally, results of this research suggest a positive relation between institutional investors and earning quality.

Ahamdpour et al (Ahamdpour, et al, 2010) examined the influence of non-responsible managers and institutional investors on the conduct of earnings management. The results of institutional management role tests with respect to earnings management showed that when there is a high motivation for manipulation, non-responsible managers and major institutional investors play an insignificant role in reducing the abnormal involuntary accruals.

MoradzadehFard et al (MoradzadehFard, et al, 2009) examined the relation of institutional stock ownership and earnings management in the listed firms of Tehran stock exchange. Their results showed that with 90% certainty it can be claimed that there is a negative and significant relation between institutional stock ownership and earnings management, and

with 99% certainty it can be claimed that when there is an increase in the activities of institutional ownership, accruals management (earnings management) level falls.

3. Research Methodology

Every scientific study begins with a problem statement. The aim of research is to give answers to problems via scientific methods. The main question of this research is as follows:

1. Is there any meaningful relation between ownership centralization and earning quality?

2. Is there any meaningful relation between institutional ownership and earning quality?

3.1 Research Hypotheses

In this research, there are two groups of main and subsidiary hypotheses as follows:

3.2 Main Hypothesis

1. There is meaningful relation between ownership centralization and earning quality.
2. There is a meaningful relation between institutional ownership and earning quality.

3.3 Subsidiary hypotheses

First group of subsidiary hypothesis

1-1. There is meaningful relation between ownership centralization and operating cash to operating earnings ratio.
1-2. There is meaningful relation between ownership centralization and accruals volume.
1-3. There is meaningful relation between ownership centralization and persistent growth rate of earnings
1-4. There is meaningful relation between ownership centralization and gross earnings to sale ratio.
1-5. There is meaningful relation between ownership centralization and earning persistence.
1-6. There is meaningful relation between ownership centralization and receivable accounts quality.

Second group of subsidiary hypothesis

2-1. There is meaningful relation between institutional ownership and operating cash to operating earnings ratio.
2-2. There is meaningful relation between institutional ownership and accrual volume.
2-3. There is meaningful relation between institutional ownership and persistent growth rate of earnings.
2-4. There is meaningful relation between institutional ownership and gross earnings to sale ratio.
2-5. There is meaningful relation between institutional ownership and earning persistence.
2-6. There is meaningful relation between institutional ownership and receivable accounts quality.

In this research, correlation analysis, regression and variance were used, and the research methodology is post occurrence (by using past information).

The research sample consists of the listed firms of Tehran stock market. The sample was limited as follows:

- Not being an investment company or financial intermediary;
- Not being a company with losses;
- Companies whose financial year ends at Esfand(calendar of Iran);
- In the research period under investigation, there should be no financial year change;
- The required company information should be available in the research period under investigation;
- Firms that don't have more than three month of transaction cease.

With respect to the applied limitations, 114 firms were selected as the second sample, all of which were selected as the final sample. Research period is from 2005 to 2009, 5 years. For obtaining the relevant data about firms, Rahavard Novin software, Tehran stock exchange website, and also the website rdis (www.rdis.ir) were used. For the purpose of calculation and data analysis, Excel spread sheet was used.

4. Measuring variables

4.1 Independent Variables

In this research ownership structure considered as independent variable that include ownership centralization and institutional ownership:

4.1.1 Ownership Centralization

In this study like other research, we used more than 5 percent stocks in stockholders proprietorships ownership centralization measures.

4.1.2 Institutional Ownership

According to the past research, common stock ratio issued in each firm at the end of each year as an institutional ownership measure. For calculating institutional ownership, relevant data for every year and in the research period (2005-9) is elicited for every sample firm. Then the stated data was averaged as institutional ownership.

4.2 Earning Quality (Dependent Variable)

The dependent variable in this research is earning quality. Because of the lack of a generally-accepted method for measuring earning quality, an attempt was made to use methods that majority of researchers agree on it. And at last 6 various measures were used. For calculating every earning quality measure in sample firms, first, given figures of the formula were evaluated. Then they were assigned values from 0 to 10. At last the sum of values of every index was calculated for ranking every firm and determining the degree of earning quality in every firm. Methods of calculating each earning quality measure is as follows:

4.2.1 Operating Cash to Operating Earnings Ratio

It shows ability of any firm in making cash and is obtained by dividing operating cash to operating earnings. The higherthis measure is,the closer earnings will be to cash and the higher quality it will be.

4.2.2 Accruals Volume

Accruals are non-cash items which are used in calculating net earnings of a firm. A simple approach for measuring earning quality is based on changes in total accruals. The higher the accruals volume is, the lower earnings will be. For calculating accruals volume, Jones modelwas used:

$$TA_t = (\Delta CA_t - \Delta Cash_t - \Delta Cl_t + \Delta STD_t - Depn_t) \quad (1)$$

TA_t: Accruals volume in year t ΔCA_t: change in current assets

$\Delta Cash_t$: Change in the cash ΔCl_t: change in current debt

ΔSTD_t : Change in the current share of facilities received $Depn_t$: depreciation costs in year t

4.2.3 Persistent Earning Growth Rate

Earnings growth rate is defined as an increase in percentage of earnings. PersistentEarnings growth is one of the important measures of evaluating earning quality. Because of fluctuations in annual earnings growth rate of most firms in Tehran stock exchange, persistent earnings growth rate was used in the period under study. The higher this rate, thehigher earning quality will be. For calculating the persistent earnings growth rate,geometrical average of EPS annual growth rate was used. It is calculated as follows:

$$g_{t_c} = \sqrt[5]{(1+g_t)(1+g_{t-1})...(1+g_{t-4})} - 1 \quad g_t = \frac{eps_t - eps_{t-1}}{eps_{t-1}} \times 100\% \quad (2)$$

4.2.4 Gross Earnings Ratio

The higherthe degree of this measureis in the period understudy, the more able these firms are in making profits. Therefore,earning quality will be higher.

4.2.5 Earnings Persistence

Earnings evenness, persistence and stability mean high earningsquality. For measuring earnings evenness,earnings-per-share change index is used. The higher this index is, the higher earnings evennesswill be, and as a result,thehigher earning quality will be.

$$\mathrm{CV} = \frac{\delta}{\bar{x}} \quad (3)$$

4.2.6 Receivable Accounts Quality

Receivable accounts quality and income quality play important parts in evaluating earning quality.Generally,the incomewhich is realized on the basis of conservatism, lead to higher earningsquality. On the contrary,the income whichis realized on the basis of risky accounting lead to lower earningsquality.

AR= change percentage in receivable accounts/change percentage in sales

5. Research Results

For examining the relation between ownership centralization and earning quality index, first, the researcher tested the subsidiary hypotheses (1-1 to 1-6) to demonstrate meaningful relation between ownershipcentralization and the six measures of earning quality separately. Results of the tests are summarized in the table 1:

<Table 1 about here>

As you see in the above table, just in the subsidiary hypothesis 1-3 (relation between ownership centralization and persistent growth rate of earnings) and the subsidiary hypothesis 1-5 (the relation between ownershipcentralization and earnings persistence), the test significant level is lower than the error level of 0/05. So it isn't placed in the acceptance area of H_0 and the zero hypothesesare thus rejected and the opposite hypothesis is confirmed. In other words,the slope of the regression line isn't zero and there is a meaningful relation between the two variables. In other hypotheses, according to the significant level, no meaningful relation wasobserved between the independent variable (ownership centralization) and earning quality measures. After the subsidiary hypotheses tests, an attempt was made to test the first main hypothesis which is the most important research hypothesis.

Theresults of the statistical analysis of the mentioned hypotheses are summarized in a table.

<Table 2 about here>

The results of this hypothesis test show a positive relation betweenownershipcentralization and earning quality index. In other words, ownershipcentralization plays a role in earning quality. According to the determinant coefficient indicated, it can be concluded that there is no strong relation between ownershipcentralization and earning quality and only 4/8% of earning quality changes is accounted for by ownershipcentralization.

Also, for examining the relation between institutional ownershipand earning quality index, first,the researcher tested thesubsidiary hypotheses (2-1 to 2-6) to demonstrate meaningful relation between institutional ownership and the six measures of earning quality separately. Results of the tests are summarized in the table 3:

<Table 3 about here>

As you see in the above table, just in the subsidiary hypothesis 2-4 (the relation between institutional ownership and gross earnings to sales ratio) and the subsidiary hypothesis 2-5 (the relation between institutional ownership and earnings persistence), the test significant level is lower than the error level of 0/05. So it isn't placed in the acceptance area of H_0 and the zero hypotheses are thus rejected and the opposite hypothesis is confirmed. In other words, the slope of the regression line isn't zero and there is a meaningful relation between the two variables. In other hypotheses, according to the significant level, no meaningful relation was observed between the independent variable (institutional ownership) and earning quality measures. After the subsidiary hypotheses tests, an attempt was made to test the first main hypothesis which is the most important research hypothesis.

The results of the statistical analysis of the mentioned hypotheses are summarized in a table.

<Table 4 about here>

The results of this hypothesis test show a positive relation between institutional ownership and earning quality index. In other words, institutional ownership plays a role in earning quality. According to the determinant coefficient indicated, it can be concluded that there is no strong relation between institutional ownership and earning quality and only 6/5% of earning quality changes is accounted for by institutional ownership.

6. Results Interpretation

According to the increase in controlling activities of major stockholders from one side and institutional stockholders from the other side in compare to other stockholder, it is reasonably expected that with the increase of ownership centralization and institutional ownership, earning management decreases in the listed firms and lead to increase in earning quality. So a positive and strong relation is expected to exist between ownership centralization and institutional ownership with earning quality. The results of this research show a positive but not much strong relation. It is maybe because of short-term view of institutional investors. On the other side, major owners may use their control rights for getting private benefit instead of active control on management and exploit other stockholders. So it can be stated that in Tehran stock exchange, corporate governance mechanism (ownership centralization and institutional ownership) less affect the determinant measures of the firms' earning quality levels.

7. Research Suggestion

- It is recommended to investors in Tehran stock exchange that paying attention to earning quality is essential in addition to earnings quantity for better decision-making.
- As earnings figures always play an important and effective role in the decision-making of financial statement users, they should note that earnings of firms that have more major owners and institutional owners are more reliable than firms with other ownership structures.
- According to bankruptcy of some big firms (for example: Enron) that stem from the misleading and non-quality earnings report, it is recommended to auditing organization and accounting community that they oblige auditors to examine earning quality measures.

8. Suggestions for Future Research

- ✓ Examining the influence of the kind of ownership on earning quality in the listed firms of Tehran stock exchange.
- ✓ Examining earning quality of the listed firms before and after the first offering
- ✓ Examining the influence of firms' approaches (such as double responsibility of managing director, independence of board, non-responsible mangers…) towards earning quality
- ✓ Examining managing ownership influence on earning quality
- ✓ Examining the influence of institutional ownership on earnings with long term and short term views of institutional stockholders

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Table 1. Summary of the subsidiary hypotheses test results (1-1 to 1-6)

H	Regression model			Fisher test		Determinant coefficient		Correlation	
	variable	COEFFICIENT	*Sig*	*F*	*Sig*	R^2	R^2 *Adjusted*	*R*	*Sig*
H_1	Constant	4/346	0/00	0/079	0/778	0/001	-0/008	0/027	0/778
	CO	0/288	0/778						
H_2	Constant	5/052	0/00	0/456	0/501	0/004	-0/005	-0/064	0/501
	CO	-0/793	0/501						
H_3	Constant	2/398	0/008	8/271	0/005	0/069	0/060	0/262	0/005
	CO	3/454	0/005						
H_4	Constant	4/170	0/00	1/180	0/280	0/010	0/002	0/102	0/280
	CO	1/450	0/280						
H_5	Constant	2/133	0/040	14/41	0/00	0/114	0/106	0/338	0/00
	CO	5/291	0/00						
H_6	Constant	3/776	0/005	0/29	0/866	0/00	-0/009	-0/016	0/866
	CO	-0/299	0/866						

Table2. The summary of the results of first hypothesis test

$EQ = \alpha_0 + \alpha_1(CO) + e$ Model regression :			
114		Observations	
0/048		(R^2)	
0/040		(R^2) *Adjusted*	
0/219		$(R$ $)$	
5/650		*F*	
Sig	T	Slope	variable
0/00	7/504	21/875	Constant
0/019	2/377	9/391	(CO)

Table 3. Summary of the subsidiary hypothesestest results (2-1 to 2-6)

H	Regression model			Fisher test		Determinant coefficient		Correlation	
	Variable	COEFFICIENT	*Sig*	*F*	*Sig*	R^2	R^2 *Adjusted*	*R*	*Sig*
H_1	Constant	4/379	0/00	0/489	0/486	0/004	-0/005	0/066	0/486
	IO	0/375	0/486						
H_2	Constant	4/773	0/00	1/044	0/309	0/009	0/00	-0/069	0/309
	IO	-0/630	0/309						
H_3	Constant	4/425	0/00	2/282	0/134	0/020	0/011	0/141	0/134
	IO	0/980	0/134						
H_4	Constant	4/200	0/00	10/48	0/002	0/086	0/077	0/293	0/002
	IO	2/189	0/002						
H_5	Constant	4/780	0/00	11/21	0/001	0/091	0/083	0/302	0/001
	IO	2/491	0/001						
H_6	Constant	3/391	0/00	0/158	0/692	0/001	-0/008	0/038	0/692
	IO	0/37	0/692						

Table 4. Result summary of second hypothesis test

Model regression : $EQ = \alpha_0 + \alpha_1(CO) + e$			
114		Observations	
0/065		(R^2)	
0/057		(R^2) *Adjusted*	
0/256		(R)	
7/841		*F*	
Sig	T	Slope	variable
0/000	22/287	25/949	Constant
0/006	2/800	5/575	(CO)

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