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Study of Relationship Between Income Management and Ownership Structure in Petrochemical Industry

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Abstract : The impact of ownership structure on management decisions has great importance. Evaluating this impact can assist companies for profit optimal management. This research has considered some alternatives to reduce earnings management, because much of the literature related to earnings management is focused on the why, how and consequences of earnings management and researchers have less focused on evaluation of strategies to control and curb that. This study examines whether the difference of the companies' ownership structure has any influence on income management. If the company owners are from different groups including government, financial institutions, banks and other companies, then how would become their income management? And which of those different ownership compositions are more effective? Using the results of this research, companies can undertake necessary measures in order to optimize the income management by clarifying the effect of stock ownership structure on income management. Using a sample of 7 Petrochemical company lists at Tehran Stock Exchange for years from 2007 to 2016, we find that ownership structure has no significant relationship with earnings management.
Key words: Income Management, Ownership Structure, Institutional ownership, Corporate ownership, Management ownership.

INTRODUCTION

In recent years, economists have raised many cases about conflict of interests between the groups and the way dealing of these companies with such conflicts. These cases in general are expressed as "agency theory" in management accounting. According to Jensen, M.C.agency relationship is a contract according to which the principal or owner appoints an agent or other person on behalf of himself/herself and delegate decision making to him/her. In agency theory, principals aim to maximize wealth. So, they monitor the work of agents and evaluate their performance in order to achieve this goal. Net profit is also one of the items included in financial statements which has a great impact on decisions of the users of financial statements and has attracted much attention.

Stockholders are one of the main groups of users of financial statements. Hence, generally, it is believed that the ownership structure of companies may lead to behavioral change. This originates from monitoring activities that different investors do in this structure. In terms of theory, institutions may have motives for active monitoring of management. Impact of ownership structure on management decisions for profit has a great importance such as earnings management. Most of previous studies in the field of earnings management have generally ignored the effect of governance factors of a company which may limit the ability of managers to perform earnings management; there has not been much attention on the role of corporate governance and ownership structure in these studies. And this was an incentive to do this study.

Some studies have indicated that certain corporate governance factors have an impact on corporate accounting behaviour, including earnings management (Dechow, Sloan & Sweeney 1996; Dempsey, Hunt & Schroeder 1993; Jiambalvo 1996). For example, Warfield, Wild and Wild (1995) argue that managers who own a significant portion in the equity of a firm have less incentive to manipulate reported accounting information. Dechow et al. (1996) suggest that large block-holders of shares improve credibility of a firm's financial statements by providing close scrutiny over its earnings management activity. Balsam, Bartov and Marquardt (2002) state that institutional investors, who are sophisticated investors, are more capable of detecting earnings management than non-institutional investors because they have more access to timely and relevant information [1].

Chung, Firth and Kim (2002) find that the institutional shareholdings inhibit managers from managing accruals to achieve desired level of earnings. These studies suggest that a firm's ownership structure have a significant impact on the magnitude of earnings management and earnings quality. In the present study, we have tested the impact of ownership structure on earnings management activity in petrochemical industry members of Stock Exchange of Tehran.

Literature Review and Testable Hypotheses

According to agency theory, separation of ownership and control leads to a divergence in the pursuit of managerial interests versus owners' interests, and thus monitoring managerial decisions becomes essential to assure that shareholders' interests are protected, and to ensure reliable and complete financial reporting [1]. Extant literature suggests that different ownership structures imply different incentives to control and monitor a firm's management [2, 3]. For example, ownership concentration has implications for the level of information asymmetry between managers and investors, and this influences the quality of earnings and managers' accounting choices [4, 5]. The quality of earnings is also associated with different types of ownership. For example, management ownership could have a negative effect on earnings management [6] or a positive effect due to entrenchment or expropriation effects [7]. Other studies have also investigated whether institutional investors have an impact on earnings management [8, 9].

Tsaia, H. and Z. Gu investigated the relation between institutional ownership and firm performance in casino industry during the years 1999 to 2003 The institutional ownership is the stock percentage held by state-owned companies from the total capital stock; these companies include insurance companies, financial institutions, banks, state-owned companies and other parts of the State. They showed that institutional investments in casinos may help the investors of this industry to reduce the agency problem resulting from the separation of management and ownership.

Kapopoulos, P. and S. Lazaretou examined the effect of ownership structure on firm performance using 175 companies' information. They concluded that more centralized ownership structure is positively in relation with higher profitability of company and less scatter ownership is required to achieve higher profitability.

Dechow et al, in a study evaluated the views of the academics professors, professional accountants and regulators about earnings management. They believe that university professors have often different conceptions about earnings management in accounting profession compared with professional accountants and regulators. Professional accountants and regulators often call for urgent action to prevent the troubling phenomenon of earnings management, but university accounting professors are more optimistic.

Shleifer and Vishny believe that all stockholders benefit from the supervision of a major stockholder, because they don't incur any cost for such monitoring. Although, major stockholders enjoy good motivation because of active monitoring of management earnings. Marrakchi et al, in 2001 found that there is a negative relation between the board independency rate and earnings management level. Dechow et al, found that in companies that CEO is the head of the board as well, probably the charge to deviate from their accepted accounting principles will be increased.

Bhattacharya et al, in 2006 in Finland examined "Institutional ownership and firm performance" and concluded that there is a significant bilateral reaction between the company performance and institutional ownership of stock. Elyasiani et al, in 2006 evaluated "stability of Institutional ownership and debt expense". The main results of this research are: stability of institutional ownership reduces the cost of debt through reduction of interest conflict between stockholders and bondholders, stockholders and management and problems of informational asymmetry.

Chung K. H., &Zhang, H. in 2009 examined "Corporate governance and Institutional ownership" this research showed that the ratio of the company stock held by institutional investors lead to increase the quality of governance structure. They concluded that a good governance, operational and financial transparency will increase the liquidity of stock market. Therefore, it will reduce the informational asymmetry between domestic and foreign investors. Chung, Firth and Kim in 2002 evaluated the "institutional control and earnings management resulting from missed opportunity" and concluded that institutional investors prevent engaging accruals management for paving the profit in order to achieve the desired level of profit.

Moradzadeh Fard et al, in 1391 examined the effect of the bonus of board and institutional ownership on earnings management in Tehran Stock Exchange's member companies. They came to the conclusion that there is a negative relation between institutional ownership of stock and earnings management and there is a direct relation between the board bonus rate and earnings management.

Mehrazin et al, in 1392 evaluated the relation of family and nonfamily ownership of companies with earnings management; they found that there is a significant relation between ownership structure of companies and earnings management. On average, nonfamily firms do more earning management. Khaleghi et al, in 1394 studied the effect of ownership structure on earnings management and concluded that there is a significant relationship between them but, there is no relation between ownership structure and ownership concentration.

Ownership structure is classified into three categories of institutional ownership, corporate ownership and management ownership. According to Bush description, institutional investors are great investors such as banks, insurance companies, investment companies and so on.

Hypotheses are provided as follows include three ones:

H1: there is a significant negative relationship between Institutional ownership and income management in Petrochemical Industry.

H2: there is a significant negative relationship between corporate ownership and income management in Petrochemical Industry.

H3: there is a significant negative relationship between management ownership and income management in Petrochemical Industry.

Theoretical definitions of variables

Ownership structure: ownership structure means which individuals are ruling and dominating the operational and strategic decisions of a company. Now, if investment companies and funds own a company, the ownership is institutional and if the managers own most stock of a company, the ownership is managerial and if other commercial and industrial companies own a company, then its ownership is corporate and if foreign companies own the company, then it is called foreign ownership. Institutional ownership: This variable is the sum of the stock percentage held by state-owned and public companies from the total capital stock. According to the definition used in Rubin studies (2007), to calculate the rate of institutional ownership, the total stock in hands of banks, insurances, holdings, investment companies, pension funds, financing companies and investment funds, state owned organizations and institutions and governmental companies is divided on total issued stock of the company and percentage or the rate of institutional ownership is obtained.
Corporate ownership: This variable is calculated as the total stock percentage of commercial and industrial companies in the company.
Management ownership: This variable is calculated as the total stock percentage of each of the board members in the company [10].
Income management: An estimation of abnormal current accruals (ACACC) is applied as a criteria for earnings management. In this study, we used the modified version of Jones model which was developed by Dechow et al, to estimate abnormal current accruals. General model of current accruals (non-cash working capital items) is applied as following [10]:

TCACit = !*CAit*–!*CLit*–!*CASHit* + !*STDEBTit*

TCACit= Total current accruals for Company

Δ*CAit*= Change in current assets for the company

Δ*CLit*= Changes in current debts for the company

Δ*CASHit*= Change in cash and its equivalent for the company

Δ*STDEBTit*= Changes in current portion of long-term debts for the company

Research methodology
Statistical Society

Statistical Society of the research is all of the active petrochemical companies in Tehran stock exchange were continued their activity during the years 1385 to 1394.

Sampling method and Sample size

Since the number of the company members is 17 and their number is limit, sampling is excluded and hypothesis testing is performed on all mentioned companies. During the process of collecting information on the main variables of this research 7 companies were excluded from the selected society due to the lack of availability of their information or the companies have not been working in recent years of the study.

Data analyzing method

In this study, “combined data” method was used based on the type of data and available methods of statistical analysis. Because, independent and dependent variables are evaluated from two different aspects in order to investigate the relation of ownership structure and earnings management. These variables were tested among different companies in 1385- 1394 period. Following equation is used to determine regression:

$$\frac{CAcc_{it}}{A_{it-1}} = \beta_{0i} + \beta_{1i}\left(\frac{\Delta \mathrm{REV}_{it} - \Delta \mathrm{REC}_{rt}}{\mathrm{A}_{it-1}}\right) + \beta_{2i}\left(\frac{\Delta \mathrm{COGS} - \Delta \mathrm{INV}_{it}}{\mathrm{A}_{it-1}}\right) + \beta_{3i}\left(\frac{\Delta \mathrm{OCF}_{it}}{\mathrm{A}_{it-1}}\right) + \varepsilon_{it}$$

$\frac{CAcc_{it}}{A_{it-1}}$ = Total accounting accrual items of company i in year t, divided to total assets of company i at the end of year t-1.

$\frac{\Delta \mathrm{COGS}_{it}}{\mathrm{A}_{it-1}}$= Change in cost of sold goods of company i in year t, divided to total assets of company i at the end of year t-1.

$\frac{\Delta INV_{it}}{A_{it-1}}$= Change in inventory in year t toward the last year, divided to total assets of company i at the end of year t-1.

$\frac{\Delta OCF_{it}}{A_{it-1}}$= Change in operating cash of company i in year t, divided to total assets of company i at the end of year t-1.

ε_{it}= Error of company i at the end of

Information Analyzing

After collecting financial statements and information related to the ownership of studied companies, independent and dependent variables were calculated. After Ensuring that dependent variable data is normal, the hypotheses testing was done as below:

The first hypothesis is that, there is a significant negative relationship between Institutional ownership and income management in Petrochemical Industry.

Table 1. The first hypotheses testing- ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.099	1	.099	3.424	.123[a]
Residual	.145	5	.029		
Total	.244	6			

a. Predictors: (Constant), IO

b. Dependent Variable: TCACit

According to the table 1, the coefficient on institutional ownership is not statistically significant. Thus, it is not possible to conclude that firms having institutional ownership have higher flexibility to use accruals to manage earnings.

The second hypothesis is that, there is a significant negative relationship between corporate ownership and income management in Petrochemical Industry.

Table 2. The second hypotheses testing- ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.000	1	.000	.007	.935[a]
Residual	.244	5	.049		
Total	.244	6			

a. Predictors: (Constant), CO

b. Dependent Variable: TCACit

The results in Table 2 show that the coefficient of corporate ownership in Petrochemical Industry is not significant at the 5% level.

The third hypothesis is that, there is a significant negative relationship between managerial ownership and income management in Petrochemical Industry.

Table 3. The third hypotheses testing- ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.060	1	.060	1.643	.256[a]
Residual	.184	5	.037		
Total	.244	6			

a. Predictors: (Constant), MO

b. Dependent Variable: TCACit

As is apparent from the test output, there is no significant relationship between income management and management ownership in Petrochemical Industry.

CONCLUSION

Previous studies have indicated that ownership structure has an impact on corporate accounting behavior [1]. Therefore, the aim of this paper is to examine the effect of ownership structure on a firm's earnings management activity, within Petrochemical Company Lists at Tehran Stock Exchange. For this reason we selected a sample of 7 Petrochemical Company Lists at Tehran Stock Exchange from 2007 to 2016 (70 firm-year observations). The empirical findings suggest that the earnings management practice is not influenced by these firms' ownership structure. Inverse the Tsaia, and Gu (2007), Marrakchi et. Al (2001), Mehrazin et.al (1392) and other researcher's results, the results of this study showed that there is no significant relationship between income management and ownership structure in Petrochemical Industry.

REFERENCES

Alves, Sandra, Ownership Structure and Earnings Management: Evidence from Portugal, Australasian Accounting, Business and Finance Journal, 6(1), 2012, 57-74.

Asta, S. "Study of relationship between ownership structure and income management", journal of financial accounting researches, 1390, N2, Pp 93-106.

Bhattacharya P. S, Graham M. "Institutional Ownership and Firm Performance: Evidence from Finlan",2006, [Online] Working paper; Available at http://ssrn. Com/ abstract=1000092.

Cheng, Q & Warfield, TD 2005, 'Equity incentives and earnings management', The Accounting Review, vol.80, no.2, pp441-476.

Chung K. H, Zheng H. "Corporate Governance and institutional Ownership". Journal of Financial and Quantitative Analysis; forthcoming, 2009.

Chung K.H, ElderJ, KimJ. "Corporate Governance and Liquidity". Journal of financial and Quantitative Analysis; forth coming, 2009.

Chung R, Firth M, Kim J-B. "Institutional monitoring and opportunistic earnings management". Journal of Corporate Finance, 2002, 8: 29-48.

Cornett, MM, Marcus, AJ & Tehraniam, H 2008, 'Corporate governance and pay-for-performance: The impact of earnings management', Journal of Financial Economics, vol.87, no.2, pp357- 375.

Dechow. P, sloan.R and sweeny.A. "Detecting Earning Management", The Accounting Review, 1996, 70,193-226.

Donnelly, R & Lynch, C 2002, 'The ownership structure of UK firms and the informativeness of accounting earnings', Accounting and Business Research, vol.32, no.4, pp245–257.

Ebrahim, A2007, 'Earnings management and board activity: An additional evidence', Review of Accounting and Finance, vol.6, no.1, pp42-58.

Experimental studies of financial accounting, 1393, N 42, Pp 157-184.

Fan, J & Wong, TJ 2002, 'Corporate ownership structure and the informativeness of accounting earnings in East Asia', Journal of Accounting and Economics, vol.33, pp401–425.

Kapolouos, P. and S. Lazaretou. "Corporate Ownership Structure and Firm Performance: Evidence from Greek Firms, Corporate Governance", An International Review, 2007, Vol. 15, No. 2, pp.144 158.

Khaki, GH. "the Research method with the approach of the dissertation", Baztab Publisher, 1386, Print3.

Khaleghi, Vida; Jafari, Mahbubeh; Baghani, Ali. "The Effect of Ownership Structure on Earnings Management in Listed Companies in Tehran Stock Exchange", ICP Business, Economics and Finance, 2015, Volume 2, Issue3, pp 10-13.

Marrakchi, chtourou; Sonda, Bedard, Jean and Courteau, Lucie. "corporate Governance and Earninge Management", 2001, [Online] Available at SSRN:http://ssrn.Com/abstract = 275053

Mehrazin, A. Ghobadian, B. Forutan, A, Taghy poor, M. "companies Family and non-family ownership and profits management" Journal of auditing knowledge, 1392, N14, Pp 151-173.

Morad zadeh fard, M. Zare zadeh mehrizi, M S. Taker, R. "Bonus impact on earnings management board and institutional ownership in companies listed on the Tehran Stock Exchange", journal of Stock Exchange, 1391, N18, Pp 137-152.

Morck, R, Shleifer, A & Vishny, RW 1988, 'Management ownership and market valuation – an empirical analysis', Journal of Financial Economics, vol.20, no.1-2, pp293-315.

Nazemi, A. Momtazian, A. Salehinia, M. "Relationship between Mechanisms of corporate governance and efficiency of inventory management: accepted companies in Tehran stock exchange",

Rahmani,A . Kazemnejad, M. Sarvestani, A. "Study of disclosing qualify effect on current and future performance of Tehran stock exchange", accounting and auditing studies journal, 1391, N3, Pp 1-20.

Rubin A, Ownership level."ownership concentration and liquidity". Journal of Financial Markets, 2007, 10(3): 219–248.

Shleifer, A & Vishny, RW1986, 'Large shareholders and corporate control', Journal of Political Economy, vol.94, no.3, pp461-488.

Shleifer, A. and Vishny , R. "Large shareholders and corporate control", Journal of Political Economy, 1986, Vol. 94, pp. 461-88.
Tsaia, H. and Z. Gu. "The Relationship Between Institutional Ownership and Casino Firm Performance", Hospitality Management, 2007, Vol. 26, pp. 517-530.
Warfield, TD, Wild, JJ & Wild, KL 1995, ‘Managerial ownership accounting choices, and informativeness of earnings’, Journal of Accounting and Economics, vol.20, pp61-91.