Concentration of Ownership in Iranian Listed Firms

Meysam Foroughi and Masood Fooladi

***Abstract*—An important mechanism to monitor the firm's activities and assure investors to get an appropriate return on their investment is corporate governance (CG). In fact, corporate ownership structure is the most major and determining factor in CG mechanism influencing the scope of a firm performance. Therefore, the aim of this study is to answer this question: ''is there any relationship between ownership concentration and firm performance?'' Based on stratified random sampling of listed firms on Tehran Stock Exchange and applying the panel least squared with cross-section weights as the underlying statistical test, it is found that firm performance is negatively related to ownership concentration of Iranian listed firms. In addition, the impact of ownership structure on firm performance depends on industry.**

***Index terms*—Corporate governance, firm performance, ownership concentration, agency theory.**

I. Introduction

Due to the separation of ownership from control in modern companies and conflict of interest between managers and shareholders, CG has recently received considerable attention around the world [1]. Corporate governance (CG) is a way in which suppliers of finance to corporations assure themselves of getting a return on their investment [2]. Different studies in the world document that CG mechanism can extend the capital market in countries. Investors, accountants, auditors and other players in money and investment market aware of the existential philosophy and the need for continuous improvement of CG and consideration to this system is growing exponentially. Since, the value creation of CG can be measured through the firm performance, prior studies examined the relationship between CG and firm performance [3][4].

CG mechanism in each country is determined with a number of internal and external factors. External factors such as level of capital flows from outside to inside, the world economy, shares offered in foreign exchange market, and cross-border institutional investors have influence on the CG mechanism in a country. In addition, the internal factors which determine the CG mechanism are corporate ownership structure, economic status, legal system, government policies and culture. By the way, the most major and determining factor in CG mechanism is corporate ownership structure [5]. There are different ideas about the importance of corporate ownership structure. Agency theory suggests that higher ownership concentration provides the controlling shareholders with the opportunity to use their power to undertake activities intended to obtain private profit to the detriment of minority shareholders [6]. A greater concentration of ownership in hands of major shareholders can lead to greater incentives for them to obtain private benefits.

Some empirical findings indicate that firms with higher concentrated ownership structure have lower profitability than those with a dispersed ownership structure [7]. In other words, less concentrated ownership has a positive effect on firm performance, as a result of the monitoring hypothesis. That is, all shareholders devote their efforts for monitoring managers to maximize the value of the firm. However, higher level of concentrated ownership leads to lower firm performance because of the expropriation hypothesis. When shareholder ownership is higher, they have more incentive and opportunity to expropriate wealth from company and look for their own benefits at the expense of minority shareholders.

In contrast, reference [8] reports that ownership concentration is positively related to firm performance. Reference [9] finds a positive relationship between corporate performance and ownership concentration. Other empirical studies find a nonlinear relationship between ownership concentration and firm performance [10]. In addition, reference [11] explains that corporate ownership structure plays an important role especially in determining a company's board of directors and objectives which affect the firm performance. A certain degree of ownership concentration is needed to control the market to operate effectively.

Therefore, the relationship between ownership structure and firm performance is one of the key issues in understanding the effectiveness of CG mechanisms. In fact, CG practices are affected by corporate environmental characteristics and change simultaneously with the environmental variation. Since Iran has unique environmental characteristics like capital market, culture and religion [12], studying the ownership structure is an interesting issue in this country. Using an Iran panel data set, this paper examined the possible relationship between ownership structure and firm performance.

This paper proceeds with following sections. The next section provides a background on ownership structure and firm performance and discusses the relevant literature. Section 3 describes the data collection, definition of variables and research model. Finally, section 4 provides the conclusion of study and discussion.

II. Literature Review

Different studies in western capital markets investigate the relationship between the ownership structure and firm

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The authors are with Department of Accounting, Mobarakeh Branch, Islamic Azad University, Isfahan, Iran (e-mail: foladim57@gmail.com).

performance [13]. They emphasize on the agency theory which assumes the conflict of interest between managers and owners or between majority and minority shareholders because of the separation between principals and agents. This conflict of interest imposes the agency costs to the firm. Therefore, some ownership structures such as manager's ownership and ownership concentration have been suggested to mitigate the agency costs.

Ownership structure means distribution of ownership (companies' stock) among the entity's owners (shareholders) which can be investigated in two perspectives [14]. One perspective is the concentration of ownership and another perspective is ownership composition. Concentration of ownership refers to the shares owned by a certain number of individuals, institutions or families. In other words, the percentage of the shares owned by a certain number of individuals, institutions or families is called the level of ownership concentration. Regarding to the intensity of ownership concentration, the corporate ownership structure is categorized into two groups; concentrated ownership versus dispersed ownership [15]. Reference [16] explain that ownership concentration and institutional differences caused by different degree of legal protection of minority shareholders in each country. Reference [17] believes that political factors can explain the differences in ownership concentration.

Reference [18] asserts that differences in legal structure, corporate culture and ownership composition in developing countries can result in different relationship between ownership concentration and firm performance. She also concludes, contrary to findings in developed economies, larger size of companies leads to higher ownership concentration. Reference [16] shows that since the structure of CG in developing and developed economies are different, there is a higher concentration of ownership in developing countries than developed ones. According to studies conducted in developing countries, following characteristics in each economy require countries to focus on ownership concentration [19]:

- Poor and less developed legal systems and weak enforcement mechanism: the interest of minority shareholders is not well supported because of this weakness.
- A less developed and weak regulatory system on antitrust, domestic trades, and non-banking financial institutions.
- A less developed stock market and noisy stock prices: market capitalization in emerging capital markets are usually small and trade is noisy.
- A highly volatile economic environment and imperfect market of product and production factors: new market-based systems may not operate properly. Since indirect management controlling systems such as market and bankruptcy mechanism in product market may not work well, direct control measures such as majority ownership and controlling the board of director is essential.

As the ownership benefits, motivation and incentives for monitoring management has a positive correlation with management controlling, the ownership concentration can provide more opportunity to control the managers [20]. It should improve the firm performance and minority shareholders' interests equally. Reference [21] investigates the relationship between ownership structure and firm value in China and finds a significant positive relationship between concentrated ownership and Tobin's Q. Reference [19] documents a positive relationship between ownership concentration and firm performance. They assert that the effect of ownership concentration on companies controlled and influenced by institutional investors is stronger than governmental ones. In addition, higher level of corporate ownership concentration can increase the company's market value and profitability.

Therefore, dispersed ownership structure cannot be the best way to improve the economic efficiency of public sector. Ownership concentration as a direct control indicator of the company, provide investors with the ability and motivation to control and monitor the management. Reference [22] in their study on the Czech Republic find that higher the level of ownership concentration, the higher the value and profitability of the company. Reference [2] documents that since the concentrated ownership provide the objectives of value maximizing and sufficient control rights over the company; it can monitor the management effectively and reduce the agency costs resulting in improved firm performance. Reference [23] in a study on British manufacturing companies finds that the firm performance is positively related to the presence of major shareholders and the degree of competition in the market. However, the effect of competition on performance is weaker when there is a major shareholder.

In contrast, reference [24] applies the same methodology with [23] in German manufacturing firms and finds relatively different results. They find that firms compete in markets with relatively high activity which major shareholders have a negative effect on firm performance. They explain that shareholding by parent companies and pyramidal ownership structure that is common in Germany governance system, does not allow performing an effective control on management. Finally, they noted that product market competition can partial compensate the negative impact of major shareholders on firm performance.

Reference [25] could not find a significant relationship between firm performance and ownership concentration in countries which recently joined the Europe Union. He asserts that ownership concentration leads to protection of shareholders and firm value only if the ownership concentrates on the foreigner investors or managerial ownership. Reference [26] in a study on Chinese listed companies observes that 63.5% of shares are held by 10 major shareholders. They state that this ownership structure can affect the internal governance and external oversight and shape the internal governance. Tightly control over major owners creates financial and operational risks leading to reduce the benefits of ownership concentration [14].

Majority ownership of equity may also impose potential costs to the company. Major shareholders encounter grate and unnecessary risks in lack of diversification. Reference [20] explains that small shareholders have too little incentives to control the management performance because the monitoring costs often exceed the benefits of improved performance. Therefore, monitoring and control become a public good because each of the shareholders can benefit from controlling the activities of others. Furthermore, reference [27] explains that decreasing cost of capital which is a competitive necessity in large companies is one of the most important advantages of dispersed ownership structure.

Reference [28] investigate the relationship between Tobin's Q as a proxy for firm performance, and the legal person ownership and state ownership for data of 5284 firm years for the long period 1991–2001. They document a significant negative effect of legal and state ownership on firm performance. They believe that the government ownership performance in competitive markets is weaker than private ownership because the political and social aims of government are inconsistent with the value maximization. In addition, politicians have an influence on the appointment of all staff, especially management, which pursues their opportunistic objectives rather than the interest of other shareholders [29].

According to [30] '…the direct participation by government officials in the control of a large part of the corporate sector opens up the possibility of widespread conflicts between public and private interests…'. Reference [31] in their study on 2181 firm-year observations in Chinese listed companies during 1999-2002 provide evidence that CEO turnover is more sensitive to stock returns in private companies than in state-controlled companies. In addition, they find that ownership concentration is associated with the stronger turnover–performance link when the private sector is the largest owner. Finally, reference [21] documents a non-linear relationship between ownership concentration and firm performance. This relationship is negative in range of 0%-10% shareholding but it is positive in range of 10%-35% shareholding and finally they are negatively related in more than 35% shareholding.

However, previous studies on the relationship between ownership structure and firm performance have provided inconclusive results. Therefore, the objective of this study is to answer the question if there is any relationship between ownership structure and firm performance in listed Companies in Tehran Stock Exchange (TSE). Iran is a developing country with different characteristics from developed countries and some emerging economies and developing nations such as China and Malaysia [32]. Reference [33] explain that most of listed firms in TSE are controlled and owned by governmental and institutional investors. The institutional investors which are also controlled by government, own more than half of the stock on the TSE [32]. Therefore, governmental officials have a significant position in board of directors and important effect on decision making [34].

III. Methodology

This study hypothesized a relationship between ownership structure and firm performance. Since the ownership structure is not the only factor influencing the firm performance, several control variables introduced to isolate other contracting incentives that have been found to have an effect on firm performance. These control variables include firm size, financial leverage, systematic risk and industry. Stock return is applied to measure the firm performance in this study. This measurement considers the profitability of shares and changes in the stock price that reflect the investors' future predictions. Ownership concentration is considered as the percentage of shares held by major shareholder. Firm size is measured by the natural log of average sales and the total amount of debt over the total book value of assets is used as a measurement for financial leverage. To investigate the effect of industry type that is the most important indicator of companies' economic activity, all industries are arranged in five categories including food, chemical, machinery and automotive, mining and metals and other industries. In addition, to test the effect of industry on the relationship between ownership concentration and firm performance, this study includes the interaction variable of industry with ownership concentration.

The population of this study is all firms listed in TSE excluding financial firms. In addition, we select firms which their fiscal year end is the end of calendar year, and excluded the firms with insufficient data. The relationship between independent and dependent variables is examined over the period of 2002-2004 which the number of companies listed at the end of year are respectively 318, 338 and 386. To select the sample, all the companies could participate in the study were selected and using a pilot study, the variance of population is measured. Refer to (1); at 95% confidence level and one percent degree of accuracy, the final sample of study is equal to 40 listed companies. To strengthen the external validity of research, we decide to increase the sample size up to 45 listed companies.

$$n = \frac{N \times Z^2 \alpha/2 \times \sigma_x^2}{\varepsilon^2 (N-1) + Z^2 \alpha / 2 \times \sigma_x^2} \quad (1)$$

where:

n is the sample size;

N is the population size;

Z is the standardized score;

δ^2 is the population variance;

ε is the degree of accuracy;

α is the confidence level.

In this study, the stratified random sampling will be used because the listed firms in population are categorized to different sub-populations of industries. When sub-populations vary considerably, it is advantageous to sample each subpopulation (stratum) independently. The total number of subjects in the sample is 45 companies listed on the TSE which are categorized in 5 industries. Based on the number of firms in each industry and using the simple random sampling, the number of selected companies of each industry is shown in Table I.

TABLE I: SAMPLE COMPOSITION

Type of Industry	Food	Chemical	Machinery and Automotive	Mining and Metals	Others
Number of firms	5	9	9	13	9

We collected ownership structure and financial and accounting data directly from annual reports and TSE reports on CDs and web. This study uses panel least squared with cross-section weights to test the hypothesis and examine the correlation relationship between the dependent and independent variables. The following model is utilized to test the relationship between independent and dependent variables:

$$FP_i = a_0 + a_1 CON1_i + a_2 BETA_i + a_3 SIZE_i + a_4 LEV + a_5 D_1 + a_6 D_2 + a_7 D_3 + \alpha_8 D_4 + \alpha_9 D_1 * CON1 + \alpha_{10} D_2 * CON1 + \alpha_{11} D_3 * CON1 + \alpha_{12} D_4 * CON1 + U_i$$

where:

FP is the financial firm performance (stock return);

CON1 is the ownership percentage of major shareholder;

BETA is the company's systematic risk;

SIZE is the size of firm measured by the natural log of average sales;

LEV is the total amount of debt over the total book value of assets is used as financial leverage;

D_1 is 1 if the company is food industries and 0 otherwise;

D_2 is 1 if the company is chemical industries and 0 otherwise;

D_3 is 1 if the company is machinery and automotive industries and 0 otherwise;

D_4 is 1 if the company is mining and metals industries and 0 otherwise;

U_i is the error term.

IV. Findings And Discussion

The results of test statistic indicate that companies' ownership concentration has a negative relationship with firm performance which is statistically significant at 5% significance level (see Table II). Reference [7], [6] support the findings of this study. This negative impact means that higher ownership concentration provides shareholder with more opportunity and incentive to expropriate firm's resources at the expense of minority shareholders which is in line with expropriation hypothesis. The size of company has a positive effect on companies' stock return at 1% significance. This is consistent with [18], [25]. A bigger firm can perhaps devise better ways and means to fight the market risks and uncertainties, have better chances to offset random losses [35]. Moreover, size brings bargaining power over the suppliers and competitors. When products are standardized and can be produced on a mass scale with longer production-runs such as Iron and Steel, a large firm will be more efficient. A big firm can buy up the best sites with related advantage, the superior technology and best professional experts because of its control over the market.

TABLE II: Estimation Results Using Panel Data Least Squared

Variable	Coefficient (T-statistic)	Variable	Coefficient (T-statistic)
CONSTANT	-15.42 (-2.60)**	CON1*D3	0.150 (1.16)
CON1	-0.118 (-2.57)**	CON1*D4	0.499 (3.72)***
BETA	8.403 (1.54)	D1	26.297 (10.67)***
SIZE	2.066 (5.98)***	D2	45.595 (1.37)
LEV	-4.365 (-3.50)***	D3	3.054 (0.32)
CON1*D1	-0.496 (-4.72)***	D4	-2.310 (-0.19)
CON1*D2	-0.402 (-1.10)		
R-squared	0.364	Durbin-Watson stat	1.41
Total panel Observations	135	Cross-sections included	45

***, ** and * denote statistically significant at 1%, 5% and 10%, respectively.
The dependent variable is FP (stock return)

Based on the results, firm performance is negatively related to financial leverage at 1% significance. Reference [36] indicates that an increased leverage ratio in a profitable business increases shareholder returns but also increases risk. In addition, as the interest rate increases the effect of leverage on firm value declines to a point at which it becomes negative. Reference [37] writing on optimal capital structure, concludes that there is no universal theory of the leverage ratio and no reason to expect one. The coefficients of interaction effect of industry and ownership concentration on stock return indicate that this relationship varies in different industries. In the food industries the coefficient of the interaction term is equal to ((-0.118) + (-0.496)) -0.614 which is significant at 1% significance level. It means that ownership concentration decreases the firm performance dramatically in food industry. In contrast, this coefficient for mining and metals industries is equal to ((-0.118) + 0.499) 0.381 and significant at 1% significance level. It means that ownership concentration increases the firm performance dramatically in mining and metals industries. Finally, it can be seen that the average of firm performance in food industries has significantly the greatest amount at 1% significance level.

The ownership structure of most listed companies in TSE is a concentrated ownership affected by the government. Therefore, the election of management is not based on capabilities and expertise because of the governmental politicians' impact on decision making. These managers cannot meet the objective of maximizing shareholders' wealth and will reduce the firm performance. Since, economic realities cannot be consistent with political aims, government should be more careful in the choice of management and it is desirable to reduce its tenure of firms in comprehensive privatization program. The high level of ownership concentration can create operational and financial risk and cause the major shareholders to expropriate the firm's resources for their own interests. Therefore, the benefits of ownership concentration such as monitoring management and aligning their interest with shareholders interests will be compromised. In other words, institutional investors could not have an efficient role in CG because this controlling mechanism as a factor in developing capital market is not correctly expanded. Therefore, to extend the CG mechanism should be paid more attention to some factors such as capital flows from outside to inside, the supply of stock in foreign markets, cross-border institutional investment, legal system, government policies and accountability.

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Meysam Foroughi is a lecturer in Department of Accounting at Islamic Azad University, Mobarakeh Branch, Isfahan, Iran. He has graduated in master of Accounting from Shahid Chamran University, Ahvaz, Iran. He has around 7 years of teaching experience at university. He has also 4 years working experience in cost accounting and information accounting system.

Masood Fooladi is a lecturer in Department of Accounting at Islamic Azad University, Mobarakeh Branch, Isfahan, Iran. He has graduated in master of Accounting from Tarbiat Modares University, Tehran, Iran. Now, he is a PhD Candidate of Accounting at School of Accounting, Faculty of Economics and Management, National University of Malaysia (UKM), Selangor, MALAYSIA. He has around 7 years of teaching experience at university. He has around 10 research papers in various journals and conferences in financial accounting and corporate governance area.