

The Relationship between Ownership Structure and Long-Term Operational Performance in Family Firms

Ali Reza Momeni^{1*}, Shirin Safaee²

¹Assistant Professor, Department of Accounting, Islamic Azad University, Chababhar International Branch

²Department of Accounting, Islamic Azad University, Chababhar International Branch

*Corresponding Author Email: momeni50688@gmail.com

Abstract: Early agency theorists generally concluded that when ownership resides within a family agency costs would be low. Family members, indeed, interact with each other in a longer-term perspective than non-family shareholders and therefore would have advantages in controlling and disciplining agents' decisions. In addition, family firms differ from non-family ones based on the fact that their property rights are partially or wholly controlled by a limited number of investors. So, the purpose of this paper is to examine the relationship between ownership structure and long-term operational performance and family firms in companies listed in Tehran Stock Exchange. In this study used a sample of 125 companies in the years 2012 until 2016. The results show that there is a significant relationship between ownership structure and return on assets in family firms. But, there isn't a significant relationship between ownership structure and return on equity in family firms. Also, there isn't a significant relationship between ownership structure and return on investment in family firms.

Keywords: Ownership Structure, Operational Performance, Family Firms.

Introduction

The current decade has seen a phenomenal growth in family businesses, especially in emerging economies in Asia. Credit Suisse (2011) reports that family businesses are now the backbone of many Asian economies, accounting for 32 percent of total market capitalization. In Southeast Asia, where important emerging economies such as India and Malaysia are located, family businesses make up 65 percent of listed companies, and 49 percent of market capitalization. However, despite this remarkable contribution of family businesses, especially in emerging economies, the topic of family business has remained relatively under researched in accounting literature (Gosh & Tang, 2015). Family business is a well-developed form of ownership all around the world (Faccio & Lang, 2002). Recent studies have shown that families control large stakes in about one third of the Standard and Poor's 500 companies (Anderson & Reeb, 2003) and hold ownership positions in over 38 percent of the 2000 largest non-financial non-utility firms in the US (Wang, 2006). Even outside the US, family firms represent a prevailing form of business either in developed or developing countries (Zahra & Sharma, 2004). Consequently, the assessment whether the presence of family ties within the chains of control of the enterprise can create the conditions for obtaining a differentiated performance as compared to non-family firms has received increasing attention. Scholars often rely on agency theory as theoretical framework to investigate the link between governance aspects and performance orientation of family firms. Basically, agency theory states that when contracts are incomplete and non-equity stakeholders (such as managers) have more expertise than shareholders, the former usually end up taking residual rights of control without bearing the corresponding residual risks. This may give room to self-interested

behavior and inefficient actions which may hinder the performance of business organizations (Erbeta et al., 2013). Early agency theorists generally concluded that when ownership resides within a family agency costs would be low. Family members, indeed, interact with each other in a longer-term perspective than non-family shareholders and therefore would have advantages in controlling and disciplining agents' decisions (Fama & Jensen, 1983). On the other hand, ownership word in a dictionary gives meaning to the object is a human a right and can make acquiring it except that the law is excluded. The literature on ownership structure and performance provides inconclusive evidence. For instance, Demsetz and Lehn (1985) offer evidence of the endogeneity of a firm's ownership structure and find no relation between profit rate and ownership concentration. Similarly, Morck et al (1988) document no such relation between ownership concentration and various performance measures including Tobin's Q. Conversely, McConnell and Servaes (1990) find a significant positive association between Tobin's Q and the percentage ownership of institutional investors. Consistently, Dahlquist and Robertson (2001) report a positive association between Swedish firms' performance and foreign institutional investors' holdings. Demsetz and Villalonga (2001), on the other hand, account for the endogeneity of ownership structure and find no relationship between ownership structure and performance for US firms. So, this research is trying to answer the following question: Is there a significant relationship between ownership structure and long-term operational performance in family firms?

Development of hypotheses

According to high content we will consider a main hypothesis and three subsidiary hypotheses.

H. There is a significant relationship between ownership structure and long-term operational performance in family firms.

H1. There is a significant relationship between ownership structure and return on assets in family firms.

H2. There is a significant relationship between ownership structure and return on equity in family firms.

H3. There is a significant relationship between ownership structure and return on investment in family firms.

Materials and Methods

In this survey the independent variable is *OWNERSHP STRUCTURE*. Owner structure is total percent shares from major shareholder to total shares of the firm. Furthermore, dependent variables are *RETURN ON ASSET*, *RETURN ON EQUITY* and *RETURN ON INVESTMENT*. Return on asset is earnings before interest divided by total assets. Return on equity is profit after tax divided by total equity and return on investment is net income after tax divided by the investment operations. The control variables are *SIZE*, *AGE*, *LEVERAGE*, *REISK* and *SALES GROWTH*. Size equal is to the value of market capitalization + total debt – cash. Age is number of years of listed in Tehran Stock Exchange. Leverage is total assets divided by total equity. Risk is the standard deviation of daily stock returns and sales growth is net sales current year - last year net sales divided by net sales last year. Also, Statistical population this review is all listed in companies in Tehran (IRAN) stock exchange during the period of 5 years (2012-2016). We use the method to remove systematic for sample selection. In this research to collect data of Tehran Securities Exchange Technology Management Company website and the Tehran Stock Exchange website. However, study sample shall be made with respect to following limitations: (Table 1 shows these limitations).

Table 1. Limitations and Sample selection.

Sample Selection	number
The Total Number Of Listed Companies In Tehran Stock Exchange At The End Of 2016 (Firm)	475
Limitations:	
Listed Companies After 2012	(10)
Deleted Companies For 2012 To 2016	(119)
Investment And Holding Companies	(66)
Enterprise That Changed The Financial Year	(11)
Companies That Were Not In Industries Review	(101)
Companies That Were Not Up To The End Of The Year	(67)
Companies That Were Not Fully Disclosed.	(9)
Final Sample	184

After restrictions remaining 184 companies. But, after putting in Cochran remaining 125 companies. Also, the following model is used to test the main hypothesis.

$$OP = \beta_0 + \beta_1 \text{Firm ownership} + \beta_2 \text{Firm size} + \beta_3 \text{Firm age} + \beta_4 \text{Firm leverage} + \beta_5 \text{Firm risk} + \beta_6 \text{Firm growth} + \varepsilon$$

And we used for hypothesis subsidiary the following models:

$$ROA = \beta_0 + \beta_1 \text{Firm Ownership}_{it} + \beta_2 \text{Firm Ownership} * FF_{it} + \beta_3 \text{Firm Ownership} * NF_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{AGE}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{RISK}_{it} + \beta_8 \text{GR}_{it} + \varepsilon_{it}$$

$$ROE = \beta_0 + \beta_1 \text{Firm Ownership}_{it} + \beta_2 \text{Firm Ownership} * FF_{it} + \beta_3 \text{Firm Ownership} * NF_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{AGE}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{RISK}_{it} + \beta_8 \text{GR}_{it} + \varepsilon_{it}$$

$$ROAIC = \beta_0 + \beta_1 \text{Firm Ownership}_{it} + \beta_2 \text{Firm Ownership} * FF_{it} + \beta_3 \text{Firm Ownership} * NF_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{AGE}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{RISK}_{it} + \beta_8 \text{GR}_{it} + \varepsilon_{it}$$

Results

Table 2 shows the descriptive statistics data 125 Firm. The results show that average ROA is 0.144 and median is 0.129 and standard deviation in this variable is 0.124 and average ROE is 0.257 and median is 0.275 and standard deviation is 0.515. Also, average ROIC is 0.113 and median is 0.099 and standard deviation in this variable is 0.128. Average Own is 0.749 and median is 0.795 and standard deviation is 0.181. Also, average firm size is 6.12 and median is 6.10 and standard deviation is 0.56 and average leverage is 1.97 and median is 1.52 and standard deviation in this variable is 2.65.

Table 2. Descriptive Statistics.

Statistics	ROA	ROE	ROIC	OWN	SIZE	LEV	AGE	RISK	GR
Average	0.144	0.257	0.113	0.749	6.12	1.97	15.52	13.56	0.241
Median	0.129	0.275	0.099	0.795	6.10	1.52	15.00	11.64	0.187
Maximum	0.639	4.67	0.626	0.998	8.06	15.7	46.00	48.6	4.65
Minimum	-0.32	-4.76	-0.33	0.051	4.56	-8.57	5.00	0.09	-0.93
Standard Deviation	0.124	0.515	0.128	0.181	0.56	2.65	7.69	8.91	0.44
Number	125	125	125	125	125	125	125	125	125

Before the test the hypotheses, we examine the assuming the remaining heterogeneity of variance in regression model research with Arch test. If the results show heterogeneity of variance we use generalized least squares method.

Table 3. Heterogeneity of variance.

Model	F-statistic	Prob	Result
Model 1	286.5111	0.000	GLS
Model 2	2.074856	0.1502	OLS
Model 3	233.2037	0.000	GLS

The results show that in model 1 and 3 Significance level is led than 5 present. So we use the generalized least squares. But in model 2 uses ordinary least squares method. Chow test applied to panel data set or combination. The results show that (Table 4) in model 1 F-statistic is 41.463 and probe is 0.000, then, the null hypothesis is rejected and in model 2 F-statistic is 1.935 and probe is 0.000. So, the null hypothesis is rejected. Furthermore, in model 3 F-statistic is 32.884 and probe is 0.000, then, the null hypothesis is rejected.

Table 4. Chow- Test.

Model	F-statistic	Prob	Result
Model 1	41.463	0.000	Fixed effects model
Model 2	1.935	0.000	Fixed effects model
Model 3	32.884	0.000	Fixed effects model

Hausman test will determine use of the fixed effects model or random effect. According to the probability of more than 5%. So the hypothesis H1 (fixed effects model) is rejected. Table 5 shows in model 1 F-statistic is 28.11

and probe is 0.000. So, the null hypothesis is rejection. In model 2 F-statistic 45.90 and probe is 0.000. So, the null hypothesis is rejection and in model 3 F-statistic 41.30 and probe is 0.000.

Table 5. Husmuns Test.

H_0	Model	F-statistic	Prob	Result
Random effects model	Model 1	28.1132	0.000	Rejection
Random effects model	Model 2	45.9077	0.000	Rejection
Random effects model	Model 3	41.3056	0.000	Rejection

Results Table 6 shows the first hypothesis estimate. R^2 represents the explanatory power of the model. This coefficient shows how many percent of the dependent variable explained by the independent variable. F statistic shows the significance of the regression model used. Also, the p-value less than 0.05. So the null hypothesis is rejected. The estimated coefficient for own variable is negative. So, there is a significant negative correlation with ownership structure and return in assets R2 in model is 0.924 and adjusted R-squared is 0.903 and F-statistic is 45.413. So, 92 percent of the dependent variable depends on the following variables and hypothetically accepted. Thus, there is a significant relationship between ownership structure and return on asset.

Table 6. Results hypothesis 1.

Variable	Coefficient	F-statistic	Sig
C	-0.352	-5.861	0.000
Own	-0.451	-2.385	0.017
Own*Family Firm	0.428	2.290	0.022
Size	0.098	8.657	0.000
Age	-0.008	-6.238	0.000
Lev	-0.003	-3.185	0.001
Risk	0.000	1.474	0.140
Growth	0.058	16.17	0.000
R-Squared		0.924	
Adjusted R-Squared		0.903	
F-Statistic		45.413	
Sig		0.000	
Durbin-Watson Stat		1.896	

Results Table 7 shows the second hypothesis estimate. The estimated coefficient for own variable is negative. So, there is a significant negative correlation with ownership structure and return on equity R2 in model is 0.363 and adjusted R-squared is 0.192 and F-statistic is 2.129. So, 36 percent of the dependent variable depends on the following variables and hypothetically accepted. Thus, there is a significant relationship between ownership structure and return on equity.

Table 7. Results hypothesis 2.

Variable	Coefficient	F-statistic	Sig
C	0.065	0.078	0.937
Own	-0.090	-1.136	0.891
Own*Family Firm	0.342	0.051	0.958
Size	0.081	0.504	0.614
Age	0.007	0.393	0.694
Lev	-0.081	-7.56	0.000
Risk	0.005	1.966	0.049
Growth	0.091	1.94	0.052
R-Squared		0.363	
Adjusted R-Squared		0.192	
F-Statistic		2.129	
Sig		0.000	
Durbin-Watson Stat		2.156	

Results Table 8 shows the second hypothesis estimate. The estimated coefficient for own variable is negative. So, there is a significant negative correlation with ownership structure and return on investment R² in model is 0.922 and adjusted R-squared is 0.902 and F-statistic is 44.53. So, 92 percent of the dependent variable depends on the following variables and hypothetically accepted. Thus, there is a significant relationship between ownership structure and return on investment.

Table 8. Results hypothesis 3.

variable	Coefficient	F-statistic	Sig
C	-0.296	-5.493	0.000
Own	0.124	0.480	0.631
Own*Family firm	0.106	0.413	0.679
Size	0.093	9.463	0.000
Age	0.009	-8.514	0.000
Lev	0.004	-5.789	0.000
Risk	0.000	1.106	0.268
Growth	0.057	15.88	0.000
R-squared		0.922	
Adjusted R-squared		0.902	
F-statistic		44.533	
Sig		0.000	
Durbin-Watson stat		1.854	

Discussion and Conclusion

The current decade has seen a phenomenal growth in family businesses, especially in emerging economies in Asia. In this study mentioned the relationship between ownership structure and long-term operational performance and family firms in companies listed in Tehran Stock Exchange during the years 2012-2016. The study results show that there is a significant relationship between ownership structure and return on assets in family firms. But, there isn't a significant relationship between ownership structure and return on equity in family firms. Also, there isn't a significant relationship between ownership structure and return on investment in family firms. In the other word, increased ownership in family firms increased return on assets. In addition to the return of the stock rises when more than 5% of shares shareholders percent stake in the company. One of the important limitations in this study was period study. If the results of this study were longer, without a doubt, obtained was a better result. At the last the following suggestions are addressed for the future studies:

1. The relationship between ownership structure and long-term operational performance in company bankrupt and non-bankrupt.
2. The relationship between family ownership and non- family ownership with operational performance in companies listed in Tehran Stock Exchange.

Conflict of interest

The authors declare no conflict of interest

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