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# A Study of Family Business Governance Efficiency: Based on the Institutional Environment

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**ABSTRACT**
Family Enterprises are commonly existing worldwide, no matter where the country or the region is. Furthermore, the family's efficiency has substantial implications on society, so it is a vital branch of business management research. However, existing studies have produced frequently inconsistent results. Thus, our study investigated 440 sample companies from the perspective of executives. The findings show a curvilinear (inverted U) relationship between Executive Shareholding and Firm Performance. There is a close connection between CEO-Chair Duality and firm performance. Further, the research suggests that the higher Executive Compensation, the higher performance. Additionally, the study examines how Institutional Environment moderates the influence of executive on the Return on Equity (ROE) of family firms in China. There is some evidence to suggest the executive of family firms that are expected to substantially make a meaningful impact on the development of the company and society.
***Keywords:*** *Executive shareholding, CEO-Chair duality, executive compensation, institutional environment, firm performance*

## 1. INTRODUCTION

According to the survey in 2018, nearly 90% of Chinese private enterprises are family businesses, which may play a significant part in the entire national economy, contributing the tax and offering job opportunities. Hence, how to continue to develop family businesses is of far-reaching significance to economic reform and open up. In this research, we will refer to the Chinese family business from an executive perspective.

The rest of the paper is structured as follows. Part 2 provides a summary of current research about family companies and comes up with hypotheses. We continue with Part 3 and describe the methods used, including sample and data sources, variables of the study and models. Part 4 provides our empirical results. Finally, we sum up and discuss in the final part.

## 2. REVIEW AND HYPOTHESIS

As noted above, it is a long and endless academic debate about the correlation between the executive and firm growth. This study will discuss the likely effects of the executive on corporate performance in the background of family business, including executive Shareholding, CEO-Chair Duality and Executive Compensation. Besides, the study considers the moderating effect of the Institutional Environment.

### *2.1. Executive Shareholding and Firm Performance*

"Convergence of Interests Hypothesis" created a precedent for the research on the incentive effect of the connections between executive stock ownership and performance of the company, which was pioneered respectively by Jensen and Meckling.[1] Based on the empirical analysis of more than 400 companies in Europe, Thomsen and Pederson found that the concentrated ownership structure promoted corporate performance.[2] Nevertheless, some scholars began to discover inconsistent results and gradually realized that the correlation between Executive Shareholding and Firm Performance may be non-linear. The study on the connection between Executive Shareholding and the business performance was not significant and non-linear by Christian and Stefan Hilger.[3] Relevant evidence indicated that the firm performance increased until the executive Shareholding reached a tipping point and then started to fall. [4]

We thus hypothesize:

H1: There is a curvilinear (inverted U) relationship between Executive Shareholding and Firm Performance.

### *2.2. CEO-Chair Duality and Firm Performance*

Based on the Stewardship theory, we argue that CEO-Chair Duality will make managers under more pressure,

 

due to the widespread of high-interest attitude, responsibility, reliability, and a strong desire for achievement, which plays such an essential role in company's daily management. [5] At the same time, it is beneficial to the acquisition of internal information and communication.
We thus hypothesize:
H2: CEO-Chair Duality is significantly positively related to Firm Performance.

### *2.3. Executive Compensation and Firm Performance*

Based on the previous and relevant literature, some top management incentive compensation studies illustrate that the Salary level of the executive also had a great and active impact on the company's future performance. We believe that increasing executive compensation can effectively motivate management, promoting the firm performance.
We thus hypothesize:
H3: Executive compensation is significantly positively related to Firm Performance.

### *2.4. The Moderating Effect of Institutional Environment*

Compared with other countries, the institutional environment in China is unique, such as the government intervention, market competition and property rights system, which makes firms face complex and various environments, especially the family business.
The previous research of Cronqvist and Nilsson found that centralized executive ownership was beneficial to business owners in a weak institutional environment. In contrast, in a strong environment, the external market environment could play a better role. Therefore, the Institutional Environment could regulate the relationship between executive shareholding and corporate economic performance.[6] Qing Yu took the institutional background into account, analysing the data of capital market A-share listed companies from 2009 to 2013 and found that the institutional environment could restrict the executive blind expansion, which was the negative effect of CEO-Chair Duality.[7] The empirical research by Hui Cao found that the phenomenon of insufficient executive compensation incentives would be improved in regions with a high level of marketization, which was good for firm performance.[8]
We thus hypothesize:
H4a: Institutional Environment will progress moderating effect on the relationships between Executive Shareholding and Frim performance.
H4b: Institutional Environment will progress moderating effect on the relationships between CEO-Chair Duality and Firm Performance.
H4c: Institutional Environment will progress moderating effect on the relationships between Executive Compensation and Firm Performance.

## 3. METHODS

### *3.1. Sample and Data Sources*

The sample includes the companies listed in the China Stock Market Accounting Research (CSMAR). Firstly, according to the definition of the family business, we preliminarily collected some company's data. Then, out of the listed companies that do not include enough information in their financial statements, financial institutions, as well as ST companies were excluded. We also obtained some information from annual reports and websites. Lastly, we were thus left with 440 companies.

### *3.2. Variables of the Study*

Similar studies should consider lots of characteristics of a company, such as the size of the enterprise, ownership, control structure, age, leverage and growth. In line with previous studies measuring firm performance, our performance measures include the Return on Equity (ROE), examining the accounting the firm's performance Executive Shareholding is collected related data from CSMAR. Then, CEO-Chair Duality is set to a dummy variable and equals one when the CEO and Chairman are the same person. Executive Compensation is measured by taking the logarithm to top three executive compensations. Besides, Institutional Environment is measured to the NERI INDEX of Marketization of China's Provinces 2016 Report.[9]
We should control a number of variables, which can affect firm performance in the regression models, including size, age, the firm asset, leverage and growth. We measure the firm asset by the logarithm of the firm's total assets before this research. Also, firm size is measured by thaking the logarithm to the number of employees. It was generally accepted that the firm's age can influence the company's growth, profitability, and outlook [10] Finally, as a control variable, firm age is measured in our model as the number of years since the company went public

### *3.3. Model*

Based on the research hypothesis, we employ multiple regression analysis. The model can be expressed as Figure 1.

## 4. RESULTS

### *4.1. Descriptive Statistics*

Among our 440 samples, East China has the most enterprises, accounting for 59.09%, followed by South China, while Northwest China has the least enterprise.

This may be related to the relatively backward economic development in the local area. What's more, over 50% sample firms have more than 2000 employees. Table 1 reports the median and the standard deviation of all the variables. We extracted the residuals of reduced from regression for the suspected endogenous variables so as to test endogeneity. Afterward, we adopted multiple regression analysis to test assumptions about the impact of the executive and institutional environment on the enterprise performance of family Business.

**Table 1** Descriptive statistics

| Variables | Mean | S.D. |
|---|---|---|
| ROE | 0.08 | 0.058 |
| Hold | 0.312 | 0.25 |
| $Hold^2$ | 0.16 | 0.21 |
| CEO-Chair | 0.43 | 0.496 |
| Compensation | 14.23 | 0.599 |
| Size | 7.53 | 0.097 |
| Asset | 21.88 | 0.84 |
| Age | 5.73 | 2.370 |
| Growth | 0.41 | 1.385 |
| Lev | 1.27 | 0.64 |
| Institutional | 8.88 | 1.47 |

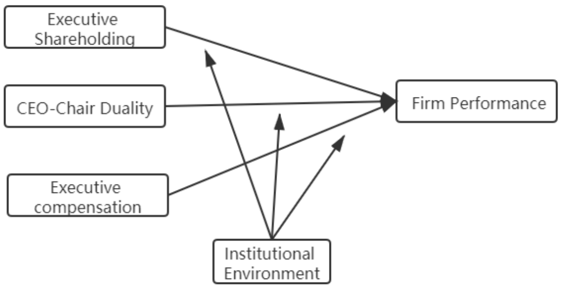


**Figure 1** Research model

## *4.2. Variable Correlation Analysis*

According to Table 2, because of the relatively low correlation coefficients of independent and control variables, there is no serious multicollinearity between variables. Further, the variance inflation factor (VIF) values are below 1. We eliminated the effect of multicollinearity among the variables and applied to build the model to verify the accuracy of the results.

## *4.3. Multiple Regression Analysis*

Table 3 shows the results of the regression analyses to use ROE as the dependent variable. Model 1 was an empty model, containing only the control variables. The Executive Shareholding was introduced in Model 2-3 to test hypothesis H1. There is a curvilinear (inverted U) relationship. CEO-Chair Duality was introduced in Model 4 to test hypothesis H2, and its regression coefficient was positive and significant ($\beta$=0.102, $p$<0.05). The executive compensation was introduced in Model 5 test hypothesis H3and its was also positive and significant ($\beta = 0.135$, $p < 0.05$). Model 6 was introduced all the independent variables, and the regression results were generally consistent with the previous study.

Models 7–11 were used to test the moderating effects. First, the consequence indicated that the moderating effect of Institutional Environment with the executive shareholding on profitability was significant with a negative sign ($\beta = -0.050$, $p < 0.1$). Second, the interaction term of CEO-Chair Duality on firm performance moderated by the institutional environment was positive and significant ($\beta = 0.103$, $p < 0.05$). Finally, the results of Model 10 indicated that the regression coefficient of the interaction term (Compensation × Institutional) on profitability was positive and significant. The assumption stands.

**Table 2** Correlation among variables

| | ROE | Hold | $Hold^2$ | CEO-Chair | Compensation | Size | Asset | Age | Growth | Lev | Institutional |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROE | 1 | | | | | | | | | | |
| Hold | 0.029* | 1 | | | | | | | | | |
| $Hold^2$ | -0.050* | 0.943** | 1 | | | | | | | | |
| CEO-Chair | 0.081** | 0.402** | 0.442** | 1 | | | | | | | |
| Compensation | 0.229** | 0.026 | 0.020 | 0.059 | 1 | | | | | | |
| Size | 0.240** | -0.068 | -0.40 | -0.067 | 0.385** | 1 | | | | | |
| Asset | 0.181 | -0.106* | -0.106* | -0.067 | 0.335 | 0.722 | 1 | | | | |
| Age | 0.002 | -0.248** | -0.248** | 0.052 | 0.077 | 0.235** | 0.377** | 1 | | | |
| Growth | -0.025 | -0.24 | -0.024 | 0.056 | -0.052 | -0.048 | 0.021 | 0.071 | 1 | | |
| Lev | -0.285** | -0.002 | -0.002 | 0.013 | -0.040 | 0.035 | 0.130** | 0.017 | 0.060 | 1 | |
| Institutional | 0.009 | 0.002 | 0.02 | 0.065 | 0.211** | 0.056 | 0.060 | 0.08 | 0.011 | -0.022 | 1 |

Notes: * $p < 0.1$. ** $p < 0.05$. *** $p < 0.01$.

**Table 3** Results of regression analysis

| | **Model 1** | **Model 2** | **Model 3** | **Model 4** | **Model 5** | **Model 6** | **Model 7** | **Model 8** | **Model 9** | **Model 10** | **Model 11** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Size | 0.186 | 0.186 | 0.183* | 0.189** | 0.148** | 0.147 | 0.186 | 0.184* | 0.190** | 0.147** | 0.145 |
| Asset | 0.116** | 0.117*** | 0.119 | 0.120 | 0.095 | 0.104 | 0.117*** | 0.119 | 0.120 | 0.095 | 0.103 |
| Age | -0.081 | -0.072 | -0.069 | -0.077 | -0.75 | -0.074 | -0.071 | -0.069 | -0.076 | -0.72 | -0.071 |
| Growth | 0.006 | 0.006 | -0.006 | 0.001 | 0.010 | 0.005 | 0.006 | -0.006 | 0.001 | 0.0111 | 0.006 |
| Lev | -0.306 | -0.306*** | -0.306*** | -0.308*** | -0.297*** | -0.298*** | -0.306*** | -0.306*** | -0.308*** | -0.297*** | -0.299*** |
| Hold | | 0.035* | | | | 0.109 | | | | | |
| $Hold^2$ | | | -0.050* | | | -0.108 | | | | | |
| CEO-Chair | | | | 0.102** | | 0.086 | | | | | |
| Compensation | | | | | 0.135** | 0.127** | | | | | |
| Institutional | | | | | | | -0.01 | 0.011 | -0.016 | -0.036 | -0.043 |
| Hold*Institutional | | | | | | | 0.026* | | | | 0.10 |
| $Hold^2$*Institutional | | | | | | | | -0.050* | | | -0.105 |
| CEO-Chair*Institutional | | | | | | | | | 0.103** | | 0.088 |
| Compensation*Institutional | | | | | | | | | | 0.143** | 0.137** |
| Adjusted $R^2$ | 0.142 | 0.143 | 0.143 | 0.151 | 0.156 | 0.160 | 0.140 | 0.141 | 0.150 | 0.156 | 0.160 |
| D-W | | 1.906 | 1.906 | 1.900 | 1.941 | 1.935 | 1.905 | 1.906 | 1.899 | 1.940 | 1.934 |

Notes: * $p < 0.1$. ** $p < 0.05$. *** $p < 0.01$.

## 5. DISCUSSION AND CONCLUSIONS

In summary, the study investigated 440 sample companies from CSMAR to examine the impact of the executive on the performance, considering Executive Shareholding, CEO-Chair Duality, as well as executive compensation. Moreover, the research also examined how Institutional Environment moderated the influence of executive on the Return on Equity (ROE) of family firms in China. There is some evidence to suggest the executive of family firms that are more likely to have a significant effect on the enterprise performance.

According to the existing findings, most of the studies pay much to blood relationships, rather than the executive. In fact, executive plays a vital role in performance in family business. The findings show that is a non-linear link between Executive Shareholding and Firm Performance. It is Inverted-U-Type. There is a close connection between CEO-Chair Duality and firm Performance. Moreover, the findings illustrate that the higher executive compensation, the higher firm performance.

Considering the moderating effects, the findings illustrate regulating effect on the interaction term of Executive Shareholding and Institutional Environment on profitability is negative. The impact on the performance of the interaction term of CEO-Chair Duality and Institutional Environment is positive. Besides, the Institutional Environment moderates the correlation between executive compensation and corporate performance.

### *5.1. Practical Implications*

Firstly, the study replies the executive can highly influence the firm performance of the family business. It can offer some suggestions to the company about the executive management during daily life. Further, the study illustrates that the institution environment may play a mediating role. Therefore, the company should analyse the environment effects, which is beneficial to our socialization, reform and opening.

### 5.2. Limitations and Future Research

Finally, we gave the limitations of this study and the direction to continue to expand the research. First, this study only focuses on the company's accounting performance and further research should consider non-financial performance measures to carry on robustness tests. Second, limited by resources, this study of method and samples may not be perfect. Therefore, the results of this study may not be applicable to the family business in other countries.

Third, we will explore and investigate the correlation between the executive and firm performance in the concrete situation in the future to carry out in-depth research.

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