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THE FAMILY OWNERSHIP AND FIRM PERFORMANCE IN CHINA

Evidence from Shenzhen Stock Exchange

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Table of Contents

1.	INTRODUCTION	9
1.1.	Preview of Previous Studies	9
1.2.	Motivations of the Thesis	12
1.3.	Hypotheses and Structure of the Thesis	15
1.3.1.	Family CEOs and Company Performance	16
1.3.2.	Family Shareholders and Company Performance	17
1.3.3.	Multiple Large Shareholder Structure and Company Performance.....	17
2.	THEORY OF FAMILY FIRM.....	19
2.1.	How to Define the Family Company?	19
2.2.	Types of Family Companies	22
2.3.	Agency Problems in Family Companies	24
2.3.1.	Reasons for Agency Problems.....	24
2.3.2.	Types of Agency Problems in Family Companies	26
2.4.	Measures of Company Performance	30
2.5.	Corporate Governance in Family Companies.....	34
2.5.1.	The Connection between Board and Owners in Family Companies	35
2.5.2.	The Connection between Board and Managers in Family Companies	38
2.5.3.	The Connection between Owners and Managers in Family Companies	39
4.	DATA COLLECTION AND METHODOLOGY	46
4.1.	Sample	46
4.2.	Data Collection	46
4.3.	Approach and Model	47
4.3.1.	Variables.....	47
4.3.2.	Models.....	49
5.	EMPIRICAL RESULTS	51
5.1.	Descriptive Statistics	51
5.2.	Univariate Analysis	54
5.3.	Multivariate Analysis	56

6. SUMMARY AND CONCLUSION.....	65
6.1. Conclusions.....	65
6.2. Limitations	66
REFERECNES.....	67
APPENDIX.....	74

LIST OF FIGURES AND TABLES

FIGURES

Figure 1. A real firm sample of pyramidal ownership structure

TABLES

Table 1. The variables description for Anderson and Reeb' paper

Table 2. The variables description for Cai, Luo and Wan' paper

Table 3. The variables description for Luo, Wan, Cai and Liu' paper

Table 4. Variables and calculations

Table 5. Family companies' distribution

Table 6. Summary statistics

Table 7. Correlation data

Table 8. Differences tests for the averages

Table 9. Family ownership and company performance

Table 10a. Regression results on family CEOs, family ownership and multiple large shareholder structure (accounting measures)

Table 10b. Regression results on family CEOs, family ownership and multiple large shareholder structure (market measure)

Table 11. Regression results about these relationships after abandoning unnecessary control variables

Table 12. Regression results using generalized linear model (Quadratic Hill Climbing)

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ABSTRACT

The family ownership structure is widespread at present and substantial family corporations exist now all over the world, especially in Asia where a strong sense of family exists. However, whether the family ownership structure can improve company performance is still controversy. To find out how family ownership management structure affects corporations in China is the main objective of this thesis. This thesis investigates why family companies perform different further.

The analysis in this paper is conducted by selecting sample from Shenzhen Small and Medium Enterprise Board from 2009 to 2013. Both accounting measures and market measure are used to examine the company performance. In the empirical part, the correlation between family ownership and company performance is demonstrated. Besides, relations between characteristics of family enterprises and company performance are illustrated.

The results imply that family ownership structures have positive influences in company governances in China. Family companies perform better than nonfamily companies, which is similar to most prior studies. Further analysis indicates that correlations in family CEOs and family company performances are negative. And family companies, with the multiple large shareholder structure, have worse performance than without it. These two results are opposite to previous empirical studies. However, the ratio of family holdings has no effects on the family company performance.

In short, family ownership structure is an efficient management structure in China.

KEYWORDS: Family ownership, Firm performance, Family CEOs, Family holdings, Multiple large shareholder structure, SME board.

1. INTRODUCTION

As an ancient enterprise organization form, family ownership structure becomes increasingly important for economic development. Correspondingly, family companies' researches have become more popular than before. Modern mainstream of economics holds the negative attitudes that family enterprise is an inefficient company organization form. Obvious evidences can support that family companies have agency conflicts, which make family companies low efficient. (Schulze, Lubatkin, Dino & Buchholtz 2001)

However, based on widely received evidence and theory, families own control a large percentage of publicly listed corporations around the world (Cai, Luo & Wan 2012). La Porta, Lopez-de-Silanes and Shleifer (1999) show that approximate 30 percent of companies are held by family while 36 percent of companies are widely controlled all over the world. Even in the continental Europe, Faccio and Lang (2002) find over two-fifths of companies are owned by family. The United States is considered as the highest ownership dispersion country, but according to the literature of Anderson and Reeb (2003), family companies account for approximately 30 percent of the S&P 500 corporations. In Asian countries, family firms are the primary ownership structure and families or individuals controlled more than half Asian companies (Claessens, Djankov & Lang 2000). Considerable enterprises can be defined as family firms and thus these family companies are essential to the global economy. The rapid development of family firms makes it essential to check how the family ownership structure influence the company performance.

1.1. Preview of Previous Studies

This thesis studies correlations between family controlling and company performances. As a different ownership structure, family ownership can affect the firm performance through different aspects. Several economists have studied this research area and a large number of literature has emerged. After reviewing articles between 1996 and 2010, De Massis, Sharma, Chua and Chriman (2012) find that 17.9 percent of them study corporate governance, 10.7 percent of them study succession, 7.9 percent of them study economic performance, 6.3 percent of them study resources and competitive advantage and 5.2 percent of them study entrepreneurship and innovation. Most of previous studies are about corporate governance in family corporations. In corporate governance, the main conflicts are the principal-agent problems and principal-principal problems. Family management can affect these conflicts and the influences can be either merit or demerit. Consequently, whether the family firms outperform or not is still debatable.

Without certain external supervisions, founding-family ownership is considered to be less efficient and profitable ownership structure in some previous studies. This opinion is mainly from derived from principal-principal conflicts.

First, family company owners are easy to forgo the rule of maximizing profits and then pursues private benefits instead of firm performance. Besides the family wealth, private benefits also include family reputation, family harmony and so on. If the family managers are non-rational, their irrational behavior can even bring losses to the family firms. Combining ownership and management allows minority large company owners to benefit themselves at the expense of firm benefits (Fama & Jensen 1983). The alignment of decision management and control give large minority shareholders residual claims. They would like to satisfy their own needs instead of reinvesting for their company. Demsetz (1983) notes that founding-family owners (one kind of owner-managers) may prefer non-pecuniary consumption rather than profitable projects. Favoring on-the-job consumption can make founding-family owners aim at wrong firm targets. DeAngelo and DeAngelo (2000) argue that the requirements of

special dividends for family would lead to poor operation and firm performance. They study the Times Mirror Company, which belongs to Fortune 500 firm. The Chandler family control this company for more 100 years and hired the CEO from other industry in 1995, who leads to poor stock price performance and firm operating.

Second, as the concentrated large shareholders, family company owners take actions to create impediments to prevent third parties from capturing the firm control. These actions can keep the control power of family and increase the number of family executives. Barclay and Holderness (1989) observe that large concentrated company owners establish a greater managerial entrenchment, which may reduce the firm value.

Third, family company owners often select managers and other management positions from family members and this is hard to obtain qualified and capable top managers from such a limited labor pool. Family managers are mainly chosen because of family tie instead of outstanding manage competence (Schulze, Lubatkin, Dino & Buchholtz 2001). Overall, such family company managers will take actions to maximize their private family interest, leading to poor firm performance.

Although previous studies indicates that family ownership and management could bring competitive disadvantages, Lee (2006) supports founding family members' managements can improve firm performance. The most famous literature about family business is Anderson and Reed (2003:1301-1328)' paper. They use S&P 500 companies as their sample and conclude that family corporations can perform at least the same as nonfamily firms. Various researchers find different reasons to support this opinion.

First, family company owners have extraordinary positions because of historical presence and large undiversified equity position. These extraordinary positions bring the increase of firm value. As the large shareholders, family owners like to take actions to mitigate managerial expropriation and the interest alignment of managers and

owners can also reduce principal-agent conflicts (Demsetz & Lehn 1985). Accordingly, the decrease of agency cost can improve company performance.

Second, the long-term presence of family company owners can give them longer horizons than non-family firms (James (1999)) and rise their reputations. The longer investment horizons can make firms away from managerial myopia and give up investment objectives which can only boost current earnings (Stein 1988, 1989). Anderson, Mansi and Reeb (2003) show that increasing reputations deriving from long-term presence can confirm companies to borrow money at a low interest. This family reputations can also cement business relationship with other cooperative enterprises.

Third, contrary to prior literature, Morck, Shleifer and Vishny (1988) suggest that a family manager can provide the family company with extraordinary techniques and contributions, which can be unexpected advantage. In family firms, it is easier to supervise and monitor family CEOs than non-family corporations. Block (2010) observes that family owners prefer to avoid laying off employees to get their reputation for social responsibility. Cai, Luo and Wan (2012) select 351 listed family firms in China from 2004 to 2007 as their sample and support that family CEOs can benefit company performances measured by market and accounting measures in China. This degree of the positive effect is related to the degree of family ownership. As a result, selecting CEO from family members can be also advantageous.

1.2. Motivations of the Thesis

The most important motivation of this study is to make it clear that how the family firms perform in China. The modern ownership structure is predicted to be dispersed and the corporation should be controlled by different kinds of shareholders (Berle &

Means 1932). On the contrary, as a concentrated ownership structure, the family ownership is widespread and substantial family corporations exist all over the world, especially in Asia where a strong sense of family exists. In Yoshikawa and Resheed (2010: 274 - 295)'s sample, 76 percent companies selected from Japan have family owners. By analyzing the Asian family firms' success and succession, Dieleman, Shim and Ibranhim (2013) find that there are 60.8 percent companies are controlled by family on the Singapore Exchange (SGX). As a major country in Asia, China is no exception.

In 1949, the People's Republic of China was established. But China used centrally planned economy from 1949 to 1978. In 1978, China adopted the policy of reformation and opening which only focused on rural areas at the beginning. In 1992, the socialistic market economy system was adopted, which provided the establishments of Shenzhen and Shanghai stock exchanges. Since then, family businesses appeared and started to accelerate the Chinese economic development. According to nominal gross domestic product (GDP), China stands the second largest country nowadays and it has the largest purchasing power in the whole world.

In 2001, the first batch of family enterprises such as TDG holding company started to be listed. Although family business is relatively new in China, its rapid growth bring it an opportunity to play a vital role in Chinese economy. For now, China is similar to most of emerging economies and family corporations are common in Chinese listed enterprises. Researches of family business started in the beginning of this century in China. Because of the late start, the research results are also relatively scare and most of the results are subjective judgments of family enterprise system. Clearly more work is needed in China to figure out the correlation between family ownership and company performance, which can make family corporations more competitive in Chinese economics.

Another motivation of this thesis is to use the Small and Medium Enterprise Board

listed companies as the sample to obtain more exact correlations in family ownership and performances of companies with small or medium size. The Small and Medium Enterprise Board (hereinafter referred to as the SME Board) was established by Shenzhen Stock Exchange in 2004. Corporations listed on SME Board are small and medium and their share capital cannot reach to RMB 100 billion. But the total share capital of SME Board listed companies shall not be less than RMB 30 million before the offer. After offering, the total share capital of SME Board listed companies should be more than RMB 50 million. This means that these companies are not particular small, which can bring us reliable data.

As mentioned before, an increasing number of researches about family corporations emerge derived from the increasing proportion of family enterprises. De Massis, Sharma, Chua and Chrisman (2012) observe that the studied topics about family businesses are mainly about corporate governance, succession, economic performance and resources and competitive. Most of these researches collect data from developed countries and the main samples are large corporations. Even though most of these samples are large firms obtained from developed countries, researchers still get different results about family firms' performance. The fact that family ownership can affect company performance is universally accepted by these researchers.

Family ownership can bring family companies more advantages because of its combination of owner and manager. Anderson and Reeb (2003) show that family ownership structure could gain better enterprise performance through analyzing the firms from S&P 500. After collecting big companies from developed counties and analyzing them from several various dimensions, family companies are suggested to perform better than nonfamily companies (Jensen & Meckling 1976, Daily & Dollinger 1992, Beehr, Drexler & Faulkner 1997, Gomez-Mejia, Nuñez-Nickel & Gutierrez 2001, McConaughy, Matthews & Fialko 2001). From other management perspectives, the correlations between family ownership structures and company performances are considered as negative. That is to say, family ownership makes

management less efficient. For example, family companies tend to have more managerial entrenchments in Spanish firms (Gomez-Mejia, Nuñez-Nickel & Gutierrez 2001). Perrow, Reiss and Wilensky (1986), Schulze, Lubatkin, Dino and Buchholtz (2001), Cucculelli and Micucci (2008) use developed countries' big companies as their samples and conclude the similar opinion that family ownership structure can give negative effects to enterprise performance.

There are also some studies about family firms in China, but they select data from main boards of the Shenzhen and Shanghai Chinese Stock Exchanges. By using all family corporations which listed on the Shanghai and Shenzhen Chinese Stock Exchanges, Cai, Luo and Wan (2012) suggest that family CEO make family corporations gain a better company performance than family corporations with outside CEO. It would be interesting if we can support that family companies perform worse in small and medium enterprises board. Therefore, getting results about family firms' performance in small and medium enterprises would be meaningful.

The final motivation is to see if the culture can affect family firms' performance differently. Most of the studies mentioned before are designed among large family firms in western developed countries. Choosing China as the population can contain the cultural differences of east and west. Cultural differences make the management system, agency cost and supervision mechanism different. Correspondingly, family firms' performances are different. Most of previously studies are western developed countries' studies and they get two opposite concludes. Through this paper, we can analyze whether family firms can outperform nonfamily firms in eastern developing counties. If we can get the same result as other researches from China, we can do more studies about the relationship between eastern culture and family business.

1.3. Hypotheses and Structure of the Thesis

This paper studies correlations between family ownership and company performance in China. From large numbers of studies and their results mentioned above, the main hypothesis can easily be derived. The main hypothesis of this paper (H) is that *family firm has positive influences on company performance*. To examine this main hypothesis, the sample is all SME Board listed companies. By finding corresponding evidences, the previous purposes can be achieved.

The studies explained before have distinct differences in their results. Most of these studies just simply describe the correlation between family ownership and corporation performance. But there are no reasons which can interpret the relationship involved in these studies. Research in recent years tends to pay more attention on finding the reasons why family firms perform differently. They often use family CEO and the percentage of family board members as independent variables to explain why family ownership can make companies have different performance. Based on these, this study includes another three hypotheses to discuss how to improve the family companies' management.

1.3.1. Family CEOs and Company Performance

In whatever company, CEO is the most important and the most powerful role and he is responsible for whole enterprise's performance. Hence, the core element for family company management is the family CEO. Family corporations are the combination of family and corporation. Besides benefit maximization, the family corporations also aim to maximize the family profit. In this situation, family CEO can help the family to grasp their own benefits. But previous studies have shown that family CEOs can give enterprise performance their advantages and disadvantages.

Based on the above analysis, this paper builds hypothesis 1 that *family CEOs benefit firm performance in China*.

1.3.2. Family Shareholders and Company Performance

The first kind agency cost is the conflict between firm owner and the manager. Through testing the hypothesis 1, whether family ownership can reduce this agency cost can be checked. However, companies always one or more large shareholders. Hence, in family enterprises, the families can be categorized as large shareholders. Large shareholders (family shareholders)' power can be quantified by the level of family stake. Because large shareholders have power to control the firm by voting or influencing firm decisions, they undoubtedly choose the manager or decision that can benefit them. This behavior will rise the second kind of agency cost which is between large shareholders and minority shareholders.

To observe if family large shareholders can affect family firms' performance, this paper builds hypothesis 2 that *increases in percentages of family ownership have positive influences on company performances*.

1.3.3. Multiple Large Shareholder Structure and Company Performance

Through observing the Tobin's Q under different equity ownership structures, McConnell and Servaes (1990) state that the corporate value can be affected by the structure of equity ownership structure. In family enterprises, there are not only large family shareholders, but also large outside block holders. Most of the large outside shareholders can hold over 10 percent shares of enterprises by themselves. As large shareholders, outside block holders can also have voting right and influencing power

to affect the family companies. They also want to maximize their private profit instead of company benefit. In nonfamily firms, the large outside block holders usually bring the second kind of agency cost. The private benefit for large outside block holders can harm both company performance and minority shareholders. However, in family corporations, the existence of large outside block holders can be favorable.

In consideration of self-interest, large outside block holders can be strong incentive to get the family business information and supervise the family shareholders' decisions. Consequently, large outside block holders can effectively check and balance the power of large family shareholders.

Based on previous analysis, this paper rises hypothesis 3 that *the existence of multiple large shareholder structure can improve company performance.*

The remainder of this thesis contains five parts and they are arranged as following: Chapter two is the theoretical part. It describes the definition and types of family corporations and discusses the agency problems existing in family companies. Chapter two also focus on the measures of company performance and corporate governances in family enterprises. Chapter three explains three main empirical studies which have similar hypothesizes with this paper and provides the basis for model establishment. Chapter four explains the data collection and the main methodology. Chapter five describes both univariate analysis and multivariate analysis. The last chapter summarizes the conclusions and the limitations of this thesis.

2. THEORY OF FAMILY FIRM

2.1. How to Define the Family Company?

The definition of family companies still is a big problem which rises scholars' disputation. Because of different research perspectives and different research paths, differences in the definition of the family firm are increasingly larger. Although every researchers give one definition of family company when they study the family business, still no definition can be agreed by all the researchers.

Using the numbers or the proportions of family directors can define family firms. And the fractional holdings of them can also be used. Fractional holdings (fractional equity ownership) are proportions shares of a costly asset and the shares' owners usually are individuals. If the asset is a company, the fractional equity ownership allows plentiful investors to own the shares of the company. And the fractional equity ownership will also give these investors certain rights to influence the company management. Hence, the fractional holdings of founding family members allow them participate in firm management. The differences in founding family ownership levels may not affect the founding family members' rights to control the firm. Because only officers and directors and owners who hold more 5 percentage shares are require to report their holdings by the Securities Exchange Act of 1934. If the founding family members who are not officers or directors hold 4.9 percentage shares of the firm, it cannot be captured as part of family ownership. Consequently, the dummy variable can be used to define family enterprises. When founding family members hold fractional equities or family members work as directors, the dummy variable should to be one which denotes that this company is a family company. (Anderson & Reed 2003:1308-1310)

Not only the corporations that established by one or more individuals or a family

should be defined as the family companies. But also the corporations that held by an investor for a long time should be defined as the family firms. A company can be controlled by an investor for several decades and the investor may hold more than ten or even more percent of shares. Because the investor hold most of the control rights of the company for a long period of time, he can shape the company as he wants in innumerable ways. Although this company is not built by the founding family, it can be called family firm. When defining the family firms, the criterion is gradually changed from founding family to a family or an individual. (Isakov & Weisskopf 2014:5)

A widely held company can be defined if there is no shareholders who hold more than 20 percent of voting rights. When a private stockholder holds over 20 percent of company shares, he can have a sufficient influence on company decisions and management. It is essential to distinguish the family shareholders and private shareholders. Some private investors may hold most of the control rights of the company, however, they just buy the shares for quick profits and leave soon after getting these profits. Since these private investors neither affect company decisions and management nor establish company regulations, this kind of corporations cannot be categorized as family firms. In practice, it is difficult to pick out such private investors. Correspondingly, when a family or a stockholder holds over 20 percent of shares (control or voting rights), this company can be defined as family firm. (Isakov & Weisskopf 2014:5-6)

Except direct holding stock ownership, families can also control a company through a *pyramid ownership structure*. The pyramid ownership structure exists when the company ownership structure is the top to down chain of control. At the top of such ownership pyramid, it should be the ultimate owners and they control the company through successive layers. For example, a family can control Property Management Company or Investment Group Company and then Property Management Company or Investment Group Company can hold certain percent shares of other company. If a

stockholder or family owners ultimately hold over 20 percent of corporation control or voting rights, this company can be identified as family firm. (Cai, Luo & Wan 2012:932)

Figure 1 shows how an individual control a family company through the pyramid ownership structure. Mr. Wang owns 98 percent of Dalian Hexing, which owns 99.76 percent of Dalian Wanda Group, which owns 51.07 percent of Dalian Wanda Commercial Properties. Thus the ultimate ownership of Mr. Wang in Dalian Wanda Commercial Properties is 49.9 percent, the product of (98%, 99.76%, and 51.07%). His ultimate control in Dalian Wanda Commercial Properties is 51.07 percent, the min of (98%, 99.76%, and 51.07%). The *control divergence* equals the ratio of 51.07% to 49.9%.

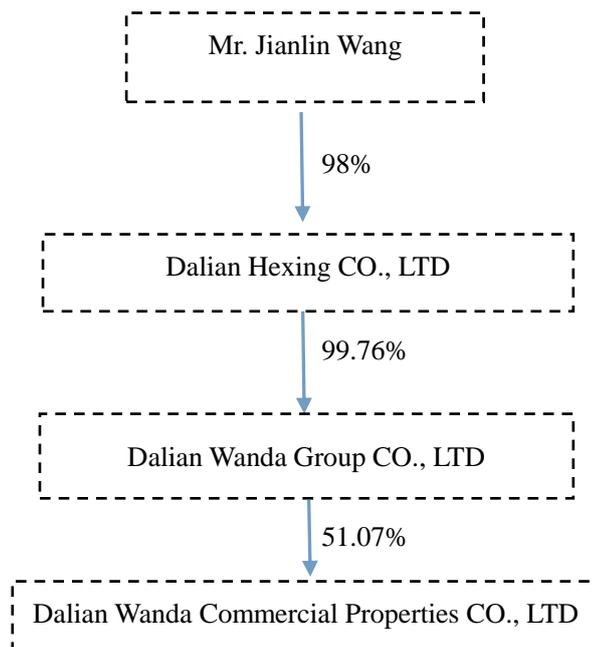


Figure 1. A real firm sample of pyramidal ownership structure

Although researchers tend to use the fractional holdings of family members as the criterion to identify a family company. The levels of lower bound of family holdings are varied among them. As mentioned before, whether an ultimate family or

stockholder holds over one-fifth of corporation control rights can category the family companies and nonfamily companies. Feng (2011), Ding, Qu and Zhuang (2011) and Luo, Wan, Cai and Liu (2013) classify family company where the ultimate family or stockholders hold more than one-tenth of control rights. After tracing the pyramidal ownership structure, they can recognize the ultimate owners.

In a conclusion, when the corporations have an ultimate individual, family or more individuals own a certain amount of company control rights, they can be considered as family companies in most cases.

2.2. Types of Family Companies

Because family and enterprise are two different systems and they focus on different goals. The combination of family and enterprise has both different targets and overlapping parts.

Distinguishing family companies by the professionalization construct is super simple and it always brings one-dimensional manner. To reveal family firms' multidimensional features, a *cluster analysis* can be introduced. The exact definition of cluster is hard to be got. It is different from classification analysis which already has the whole types before analysis.

Here, after analyzing, the cluster analysis includes five different dimensions: "1. control systems of finance, 2. activeness in top level, 3. authority decentralization, 4. control systems of human resource, and 5. governance systems of nonfamily involvement". Correspondingly, family firms can be categorized into four types: "*autocracy, domestic configuration, clenched hybrid, and administrative hybrid.*"(Dekker, Lybaert, Steijvers, Depaire & Mercken 2013:87-88)

Autocracy: this cluster has low levels on all dimensions of professionalization. This characteristic shows that most family firms in this cluster are owner-managed family companies. (Dekker, Lybaert, Steijvers, Depaire & Mercken 2013:90) In this kind company, the authority is highly concentrated and the owner tries to control all the businesses of the company (Lubatkin, Schulze, Ling & Dino 2005). To achieve families' goals of controlling the family companies, involvements of family stockholders should increase and attendances of outside stockholders should decrease.

Domestic Configuration: in this kind of family firms, most of company management is still controlled by the family. Outside nonfamily members can both exist in the board of family company and participate in family company management, but the amount for them is limited. Although the authority in these kind of family firms is still highly concentrated. Family owners start include the control system into professional company management. Both human resource control system and financial control system can be found in the *Domestic Configuration*. (Dekker, Lybaert, Steijvers, Depaire & Mercken 2012:91)

Administrative Hybrid: this cluster has high levels on all dimensions of professionalization. Zhang and Ma (2009) indicate that the family owners create a management hybrid by adding outside nonfamily managers who are professional and experienced. Consequently, the family members' involvement of company management decreases and the authority is dispersed. The increasing involvement of outside managers bring more control systems into the family firms, which can advise and supervise the companies' decisions better. The family members should participate in the company management in more objective and formal ways. (Dekker, Lybaert, Steijvers, Depaire & Mercken 2012:91)

Clench Hybrid: in this cluster, family firms are more professional than these in administrative hybrid. The degree of family involvement in company keeps on

decreasing to make more room for nonfamily members and this family firm is combination of family and nonfamily members. In this type, family members and nonfamily members “clench” together in order to coexist in the family firm. However, the human resource control system and financial control system are rarely found because of maladaptation. Informal controls (such as mutual trust and shared values and so on) that used in *Autocracy* type are usually adopted by the family and nonfamily members. (Dekker, Lybaert, Steijvers, Depaire & Mercken 2012:91)

In these four family company types, goal conflicts between family and company can harm both family members’ relationships and company development, which would bring costs for the family corporation. And the balance between family and company can offer both family relationship stability and the sustainable development of family business, which would bring benefits for the family firm. Whether families will bring costs or benefits to family firms mainly depend the agency problems.

2.3. Agency Problems in Family Companies

Traditional agency problems are generated from separating the ownership and management, but these separations are essential in large public companies. However, this separation creates obstacles for owners to supervise the behavior of managers. Such separation can also be dangerous. (Brealey, Myers & Allen 2009:12-15)

2.3.1. Reasons for Agency Problems

Corporations’ sizes are becoming large and the demands for professional management are becoming higher because of the appearance and growth of the modernized market economy. Thus the owners who also act as the managers need to put more effort on

their companies. In addition to attracting new investors to join this enterprise, it also takes a long time for initial investors to design the enterprise developing strategy. At this time, they would prefer to hire outside managers to manage the company to get them away from the tedious daily company operation. The social division of labour can make the company management more efficient. Under a good supervision mechanism, both owner and operator can benefit. But the division of labor will inevitably bring some negative effects which lead the appearance of the traditional agency problems. (Brealey, Myers & Allen 2009: 12-15; Jensen & Meckling 1976: 4-7; Fama & Jensen 1983: 5-6)

After separating the ownership and managerial authority, traditional agency conflicts appear. Owners or shareholders hope managers manage the enterprise according to the goal of obtaining the maximization of stakeholders' interests. But because administrators are not stakeholders and sometimes they hold parts of stocks, manager often deals daily with enterprise's decisions to benefit himself. Such as getting the extra income through on-the-job consumption which can result in the damage of owners' interests.

One important reason for traditional agency conflicts is serious information asymmetries in owners and manager. Manager is on the front line, engaging in business activities. They control the inflows and outflows of company currency capital and the internal resource allocation within a certain scope of authorization. Managers are in a relative dominant position of information, while owners are in disadvantage in information. It is entirely possible for managers to use information superiority to reap additional benefits for themselves. (Brealey, Myers & Allen 2009: 12-15; Jensen & Meckling 1976: 4-7; Fama & Jensen 1983: 5-6)

Another internal reason for traditional agency problems is that managers do not hold company shares and this reason will bring two results. First, manager is hardworking and obtains excellent company incomes. However, stockholders grab most of these

benefits and manager can only receive the promised payment. This imbalance of giving and taking can make managers to abandon positive effort which is necessary for the successful company. Besides, a utility derived from on-the-job consumption is fully enjoyed by managers, but the high cost of on-the-job consumption is fully paid by company shareholders. This imbalance of giving and taking can easily lead managers to seek own welfare at the cost of corporate interests. (Brealey, Myers & Allen 2009: 12-15; Jensen & Meckling 1976: 4-7; Fama & Jensen 1983: 5-6)

In order to solve agency problems, owners need to monitor managers. Using supervision and incentive mechanism to make sure that managers seek for what owners want. The cost of ensuring managers make optimal decisions is agency costs. (Jensen & Meckling 1976: 5)

2.3.2. Types of Agency Problems in Family Companies

Reasons for agency problems are mainly discussed through correlations in managers and owners. We can also use the similar reasons to explain conflicts in majority stakeholders and minority stakeholders. In this kind conflicts, majority shareholders can control the company's operation through a large number of holdings. They would force managers to seek their own interests. In this situation, majority shareholders act as managers and minority shareholders act as owners.

Two different kinds of agency costs existing in family companies: principal-agent agency problem and principal-principal agency problem. These two kinds of agency problems cause the different performances between family firms and nonfamily firms.

Principal-agent conflicts: separating ownership and management can bring the traditional agency problems, which leads managers seek their own interests instead of

company performance (Jensen & Meckling 1976). In family companies, principal-agent problems tend to be reduced by several factors.

First, in family firms, families prefer to choose the management employees from family members and they also like to act as boards of directors. Consequently, families can directly join in the company operations and they can easily acquire most internal information about company. The information asymmetry in such situation can be alleviate. Even when the CEO is nonfamily member, it still costs less to monitor the manager for family corporations than nonfamily corporations. If CEOs are family members, there is no principal-agent conflicts in family firms in terms of theory. (Aderseen & Reeb 2003)

Second, family managers have the same targets with family firms' owners. At this time, family managers are no longer managers, they are also the owners of family company. The interests of managers and owners are aligned. Without certain supervision and incentive, family managers still choose to improve firm performance rather than seeking on-the-job consumption. Because they know that the on-the-job consumption should be paid by themselves. In other words, the separation between managers and owners is not dangerous any more in family enterprises. (Aderseen & Reeb 2003)

In general, from principal-agent perspective of agency costs, family managers can benefit family companies. Even if the family managers are selected from outside by family owners, the family owners can also reduce agency costs by enough internal information. Therefore, in family firms, principal-agent conflicts are at least less than nonfamily firms. Family firms alleviate principal-agent conflicts.

Principal-principal conflicts: the second kind of agency conflicts in family companies. The principal-principal conflicts are the conflicts in majority and minority stakeholders. Based on current literatures, the principal-principal conflicts are more

significant than the traditional principal-agent conflicts in enterprises with centralized ownership structure. In such structure, goal inconsistencies in majority and minority stakeholders take place of goal inconsistencies in owners and managers. The majority shareholders seek their own interests but at the same time they will decrease the benefits of minority stakeholders. (Young, Peng, Ahlstrom, Bruton & Jiang 2008)

There are two main reasons for principal-principal conflicts: (1) the concentrated ownership structure, (2) the formal and informal institutional framework which brings weak protection for minority shareholder rights. The precondition of principal-principal conflicts is the concentrated ownership structure and formal and informal institutional frameworks are catalysts for principal-principal conflicts. (Young, Peng, Ahlstrom, Bruton & Jiang 2008)

First, *concentrated ownership structures*: in most countries, the company ownership structures are highly centralized. Even in some countries, the dispersed ownership structure is treated as the exception. In East Asia, more than two-thirds enterprises in the emerging countries have the concentrated ownership structure. In Europe, many countries also have the concentrated ownership structure in most of their companies. In Europe and East Asia, the controlling shareholders choose to obtain both tangible and intangible benefits through their company controls and of course they would not like to share these benefits with other small shareholders. In concentrated ownership structure, financial instruments make principal-principal conflicts more serious. Because financial instruments like dual-class shares, pyramiding and tunneling can decrease the probabilities to seek the company's best interests. (Sauerwald & Peng 2012)

Second, *the formal and informal institutional framework*: principal-principal conflicts are easy to emerge when the controlling shareholders' behaviors are permitted. The large shareholders are the principal of the company and they control the internal governance mechanisms. Correspondingly, minority shareholders mainly rely on

external governance mechanisms. When the external governance mechanisms are weak, the interests of minority shareholders are dangerous. In many emerging countries, the concentrated ownership structure usually emerges with the weak minority shareholders protection. In such condition, the risk of minority shareholders' profits increases. (Sauerwald & Peng 2012)

Because the principal-principal conflicts are caused by aspects: internal and external control mechanisms. Consequently, to address principal-principal conflicts, we can consider from two aspects: internal governance mechanisms and external control mechanisms.

Internal governance mechanisms: to reduce principal-principal conflicts, one critical internal governance mechanism is introducing multiple large shareholders. Multiple large shareholder structure can effectively prevent controlling shareholders from increasing their own profits. Another important internal governance mechanism is low divergences in voting and cash-flow rights. That is to say, decreasing incentives of controlled shareholders. Controlled shareholders holding 30 percent shares has less incentives to damage the minority shareholders' interests than the controlling shareholder holding 15 percent shares. This is because "one will not steal his own money". Better yet, through respecting minority shareholders, the controlling shareholders can set a good example which can increase the intangible company value. (Sauerwald & Peng 2012)

External control mechanisms: strong external control mechanisms can be established by using effective laws and regulations. Once the protection of minority shareholders strengthens after introducing these effective laws and regulations, the seeking scale of controlling shareholders' private benefit will diminish. (Sauerwald & Peng 2012)

In family firms, the traditional agency conflicts (principal-agent conflicts) can be reduced, but the second agency conflicts (principal-principal conflicts) will more

serious than nonfamily firms because of the followed two reasons.

First, the family company is always concentrated ownership structure. The controlling shareholders are the families and they would damage the benefits of minority shareholders through several ways. Even though, the controlling shareholders are the company owners, they still have the possibilities to seek their own interests instead of the company growth and the nonfamily shareholders' benefits. (Ding, Qu & Zhuang 2011)

Second, in most countries where the family companies play a leading role, the external control mechanisms is usually ineffective. The relevant rules and laws which can protect minority shareholders are absent. This not only will improve the likelihood of expropriating minority shareholders, but also it can support the family shareholders to hide the operation information such as lower quality earnings. The lack of relevant rules and laws would provide family shareholders convenience to seek profits for themselves not for minority stakeholders. (Ding, Qu & Zhuang 2011)

In a conclusion, in family enterprises, the principal-agent agency problems can decrease and the principal-principal agency problems can increase due to the especial company governances of family corporations.

2.4. Measures of Company Performance

The agency problems we discussed before tell us why the performances of family companies are different from nonfamily companies. In this part, we will use company performance to exactly examine these differences.

Company performances are results of activities of companies during a certain period of

time. Therefore financial statements can be used to obtain company performances. “Market value added, market-to-book ratio, EVA, return on capital, return on equity and return on assets” are all company performance measures include. (Brealey, Myers & Allen 2009: 708-713)

Market value added: dereferences in market capitalizations of companies and initial investments from the company shareholders. The *market capitalization* (market value of equity) is multiplying current stock price by shares outstanding. (Brealey, Myers & Allen 2009: 708)

Market-to-book ratio: amounts of income added in each dollar that the shareholders initially invested. (Brealey, Myers & Allen 2009: 708)

$$(1) \quad \text{Market-to-book ratio} = P_{\text{market value (equity)}} / P_{\text{book value (equity)}}$$

EVA (economic-value added): to minus total costs which includes costs of capitalization from companies' profits. Shareholders' equity plus long-run debt makes the *total capitalization* (all long-run capital). (Brealey, Myers & Allen 2009: 708)

$$(2) \quad \text{EVA} = (\text{net income} + \text{after-tax interest}) - (\text{total capitalization} * \text{cost of capital})$$

EVA is the income by taking the cost of capital off. That is to say, the EVA measures how much a company earns. If the initial invest is large, the EVA will also become large. When the manager has few assets, he will not choose the high EVA shares. In this circumstance, it will be more useful to check the company performance by every dollar earning. There are three different rates of income which based on accounting information: return on capital (ROC), return of equity (ROE) and return on assets (ROA). (Brealey, Myers & Allen 2009: 711)

Return on capital (ROC): dividing the total profits consisting of after-tax interest and net income by the total investment (total capitalization) contributed by debt and equity holders. Subtracting the tax shield is to make sure that the income which we calculate is all based on equity-financing. (Brealey, Myers & Allen 2009: 711)

$$(3) \quad \text{Return on capital} = (\text{net income} + \text{after-tax interest}) / \text{total capital}$$

$$(4) \quad \text{EVA} = (\text{ROC} - \text{capital cost}) * \text{total capital}$$

Return on equity (ROE): is the amount of income for per dollar that the shareholders invested. (Brealey, Myers & Allen 2009: 712)

$$(5) \quad \text{ROE} = \text{net income} / \text{equity}$$

We can also replace the equity by average equity which is the average of the equity of the beginning of the year and the equity of the end of the year.

$$(6) \quad \text{ROE} = \text{net income} / \text{average equity}$$

Return on assets (ROA): is the amount of income for per dollar that the debt and equity owners invested. Here, the income is divided by the company's *total assets*. Total assets are different with total capital. Total assets equals to the sum of total capital and the current liabilities. We also use the after-tax interest and this adjustment can help us ignore the capital structure difference. (Brealey, Myers & Allen 2009: 712)

$$(7) \quad \text{ROA} = (\text{after-tax interest} + \text{net income}) / \text{total assets}$$

ROC, ROE and ROA are accounting measures to evaluate the company performance. And Tobin's Q, market-to-book ratio and market value added are market measures which check company performances. Tobin's Q is an important measurement in previous literature about family company performance.

Tobin's Q: the percentage of company capital's market-value to company capital's replacing cost. It reflects ratios of different company value. Replacement costs are whole costs to purchase the same company assets. That is to say, if we want to establish the company now, how much we should spend. This replacement cost will change with the company market value. The values of the company in financial markets show company capital's market value. It includes market values of company stocks and market values of debt capital.

$$(8) \text{ Tobin's } Q = P_{\text{market value (company capital)}} / P_{\text{replacement cost (capital)}}$$

When the Tobin's Q is larger than one, buying the existing asset products is cheaper than establishing new asset products. As a result, the capital demand will decrease. When the Tobin's Q is smaller than one, buying new asset products will be more favorable. Consequently, this will increase the needs of investment.

If the Tobin's Q is high, enterprise's commercial value is higher than the capital's replacing cost, the capital of new plant is lower than the market value of the enterprise. In this case, the company can issue less shares and buy more investment products: investment spending will increase. If the Tobin's Q is low, enterprise's commercial value is less than the capital's replacing cost the manufacturer will not buy a new investment product. If the company wants to access to capital, it will buy from other cheaper enterprise to get the old capital goods: investment spending will be lower.

The effect reflects in of monetary policy is: when the money supply rises, the stock price rises and Tobin's Q also rises. Correspondingly, corporate investment expands, thus national income also expands.

2.5. Corporate Governance in Family Companies

Different researchers give corporate governance different definitions. Basically, these diverse definitions are derived from different perspectives of company agency conflicts.

Corporate governance provides the financial suppliers of the company with an insurance which can guarantee their investment return. In widely held companies, the activities of corporate governance are often used to reduce the traditional agency conflicts caused by separating ownership from management. (Shleifer & Vishny 1997)

Corporate governance supplies companies with methods that they can use to solve dispersed owners' collative action and conflicts in majority large stockholders and minority small stockholders. From this perspective, company governance needs to supervise and regulate behaviors of large shareholders. Here, the corporate governance mainly aims at the second agency problems. However, these supervision and regulation mechanisms can bring some more serious management problems, such as managerial discretion and authority abuse. (Becht, Bolton & Röell 2002)

When discussing the corporate governance in family firms, the latter definition that from the principal-principal conflicts perspective is more precise. Because, the traditional agency problems decreases and the second agency problems increases in family enterprises. To be more exact in the definition of family firms' governance, we

need add more other elements. Daily corporate operations in family company are like a black box. Family company has its own specific influence factors, like family relationship, traditions, self-control and altruism. After adding other relevant theoretical perspectives into the discussion, the definition of family firms' governance could be systematic and comprehensive. (Wallevik 2009:12)

In this part, I will discuss the corporate governance of family firm from the different relationship perspective. In nonfamily firms, there are three role orientations: owners, board and managers. Because every person in the company can act as one to three different roles, there will be seven role combinations: owners, board, managers, owners-board, owners-managers, board-managers, owners-board-managers. However, in family firms, besides owners, board and managers, the role orientations also include family. As a result, family firms have fifteen more complicated role combinations. Most present researchers combine the three basic roles with the family factor. The conformity among family influence, owners, board and managers plays the key role in the family company governance. Thus, the correlation in board and owners, the correlation in board and manager and the correlation in manager and owners will change when adding the family institution factor. It is necessary to discuss these changes to better interpret the family firms' governance.

2.5.1. The Connection between Board and Owners in Family Companies

As a given condition, the main functions of boards are governance and supervision under normal circumstances. However, in family companies, because the families act as board members, the boards become a combination between family and company. (Wallevik 2009:37) Mueller (1988) show that the board even plays the part of adjuster to resolve family problems and conflicts about the company governance in some cases.

Selecting board members in family companies

The main reason for creating board of directors is to maximum company value. The board of directors can monitor companies' decisions to reduce irrational decisions. However, when selecting board of directors, owners also want to set their own agents in the directors' board to make sure their own interests. This is the main reason that family owners tend to choose their own family members as the board of directors. Family owners also prefer to choose family members who are board members of another company, which they consider as the "safe solution". This strategic choice is based on the environmental considerations in which people need skills and contacts. This strategic choice also suggests that the social relationships and networks can influence the family company governance. (Wallevik 2009:37)

When many directors from the family companies hold control rights and also act as directors in other companies, social relationships and networks of these directors can be strengthened. This suggests that this strategic choice can cope with the uncertainty of the environment. These strengthened social relationships and networks can provides information about enterprises' communication and coordination. They provide family directors' power and influence with foundation structure. (Wallevik 2009:37) Burt (1992) argues that one person's social relationship and competence can reflect in the contacts and networks. Most people think that the person with higher competence is more attractive, hence, it is easier for this person to create networks and contracts.

Board's Sizes and compositions in family companies

The board directors' size is different among different corporations and the different sizes reflect the different board's targets. Westhead and Cowling (1996) suggest that boards with big scale include more resource base than boards with small scale,

however, the family members have less control rights when the board's size is big. In family companies, the interests of families want exceed the interests of other owners. Because of the combination of personal and families' wealth, it is important to preserve wealth in owner-managed companies. The small size of board directors can make sure the independence, control and interests of the controlling family. (Wallevik 2009:38)

Wallevik (2009) show that family enterprises usually have homogenous compositions of boards. Evidences show that the inside directors in family companies is more than these in nonfamily companies. And the amount of outside directors starts to grow in the second generation companies. (Cowling & Westhead 1996) To preserve company control and decisions, the owner-manager usually occupy the CEO role in family companies. The composition of board is the result of negotiation between the CEO and other owners of family company. But the power from the CEO dominants the board's sizes and compositions.

Board's practices and processes in family companies

Compared with nonfamily companies where the board size and composition are comparable, the board practices are similar in family companies. The family companies just copy the board practices from nonfamily companies for the reason that what work for nonfamily companies should work for family companies. However, the board size and composition can influence the practices and processes of board. (Wallevik 2009:38)

With a large number of inside board members, family companies have different board processes. Some listed family companies have large boards to use it as the resource base, some medium family companies have small boards which mainly consists of family members and some small family companies even have no board. In family companies, there are other factors such as family ties, family conflicts and even the

sibling rivalry. (Wallevik 2009:38) To make sure the board processes can work well in family companies, the size and composition of the board can overcome these family factors. We can add more outside board directors to increase the amount of board directors, which can assure board processes. The increase of outside board directors can decrease families' affects, but it can be a shortcoming sometimes. (Zahra & Pearce 1989)

2.5.2. The Connection between Board and Managers in Family Companies

Compared with companies owned by investors, the family companies' owners are usually board directors and managers. Consequently, the issues and challenges of corporate governance are different. How to accurately use information without bias is the first problem. How to consistently use information under specific family factors such as family ties and altruism is the second problem. (Wallevik 2009:39)

The board of directors are weak supervisors under some circumstances. Because it is hard to sustain objectivity in family companies, the supervision of the board becomes more weakly. Less objectivity means more proximity, but both of them have their own costs and profits. Although proximity gives more information and more corrective actions than objectivity. Lubatkin, Ling and Schulze (2003) point it still may be hard to make wise decisions because of the close family relationship. Besides, some specific family companies' features give managers more power to control the board than in nonfamily companies. There are four main factors which makes managers more powerful in family companies. First, CEO or other top managers have the right to select board members. Second, the available time for outside directors to participate in the company management is limited. Third, managers control more precise messages of family companies. Fourth, independences of external directors are also limited. Consequently, the control of managers increases and the supervision of the

board decreases, which makes the board more difficult to objectively monitor managers. (Wallevik 2009:39)

In short, the board from family companies is considered not so much to be governance mechanism as to be top-level stratagem group. Family members can supervise their managers more actively by using the exchange information between family members and managers. (Mishara, Randøy & Jenssen 2001)

2.5.3. The Connection between Owners and Managers in Family Companies

James (1999) suggest that because families are eager for companies' control and management, family companies shows a different governance mechanism. They can use larger inside ownership to improve firm performance. Family features such as trust, love and paternalism can establish a good company atmosphere to consolidate family as the leader and reduce agency cost. In family companies, owners and managers usually have significant effects on firm performance because of their status and control rights. When owners can control the management, the corporate governance is viewed as good. From this perspective, family owners can replace other supervision mechanisms to supervise and monitor their managers. Hence, the family ownership can displace the company governance mechanism. (Wallevik 2009:39)

Fama and Jensen (1983) show that extended period of family tie and correlation make owners supervise or train managers more efficiently. Besides, they also suggest that these family features are important in family company governance. To cope with increasing competition, companies need to select professional managers who are usually from outside. However, the exclusivity of family companies make it difficult to accept outside professional managers. This means that the major challenge in family companies is selecting and firing managers. The top-level managers in family

companies are selected by family ties rather than profession knowledge. Correspondingly, the personalized characters tend to act as top-level managers in family companies. Most of family managers lack appropriate management knowledge and thus it is hard for them to win in the international competition. (Wallevik 2009:39-40)

Because of long-term investment horizon, family control can increase company value, which means that family ownership can make company advantage. And the integration of ownership and management can also reduce ethical risks. In family firms, family features like trust and love can increase long-term company value and outside directors cannot help much. (Mishara, Randøy & Jenssen 2001) Whether the family corporation is successful or not is dependent on trust: family members' mutual trust, especially the owner and manager. Family companies would be dangerous if they are short of trust. Due to that measuring trust is hard, it is difficult to solve the question that whether trust is one key effect for the family company success. (Wallevik 2009: 40)

Unlike economic rationality, family affection between owners and managers can affect company behavior differently. Besides a common bond, the rational contract between family company and the manager (family CEO) also includes family emotions in family companies. These family emotions like jealousy among generations and sibling rivalry force family companies establish managerial entrenchment. In such situations, managers want to hold on their job and they start to reduce internal control. Hence, judgments for managers' decisions are no more exact. As a result, when the manager is a family member, replacing or firing the manager is difficult in family companies. (Gomez-Mejia, Nuñez-Nickel & Gutierrez 2001)

3. PREVIOUS EMPIRICAL STUDIES

This part is aimed at these four hypothesizes. In order to make more comprehensive and accurate hypothesis tests, this paper discusses some previous empirical studies which examine these hypothesizes. By analyzing previous empirical studies, we can learn their sample selection, variables setting and models building. Therefore, our models can become more perfect.

Anderson and Reeb (2003) choose their sample by selecting companies existing in S&P 500 companies on the end of December, 1992. And they preclude public utilities and banks and finally they collect 2,713 firm-years from 1992 to 1999. They obtain the board structure, top managers and family information by manually collecting. They choose Tobin's Q and two kinds of ROA to examine company performance. ROA has two ways to calculate: one uses EBITDA, another one uses net income. ROA measures companies' accounting performances and Tobin's Q measures companies' market performances. The model for multivariate analysis is

$$(9) \text{ Company Performance} = \beta_0 + \beta_1 (\text{Family company}) + \beta_2 (\text{control variables}) + \beta_{3-54} (\text{Two digit SIC Code}) + \beta_{93-99} (\text{Year Dummy Variables}) + \varepsilon$$

Table 1. The variables description for Anderson and Reeb' paper

Dependent variables:

- *Company performance* = Tobin's Q and ROA

Independent variables:

- *Family company* = dummy variable (family company = 1, when it is family company; family company = 0, otherwise)

Control variables:

-
- *Officer/directors own(less family)* = equity held by officers and directors
 - *Unaffiliated blockholders* = an entity holding more than five percent shares and having no relation with the company besides their shares holdings
 - *Outsider directors* = stocks controlled in outsider directors
 - *CEO pay based on equity* = pay based on equity / (salary +annual bonus + pay based on equity)
 - *Research &Development /sales* = growth opportunities
 - *LT debt/total assets* = debt in the capital structure
 - *Return volatility* = firm risk
 - *Ln(total assets)* = firm size
 - *Firm age*
-

In their paper, they mainly examine the correlation in company performance and family ownership and nonlinearities between them. They show that the founding-family companies perform at least as well as nonfamily companies. The founding-family ownership affects Tobin's Q much more than ROA. When the family holdings is around 30 percent, the family company performs best, which indicates the nonlinearities.

Cai, Luo and Wan (2012) test that whether family CEOs improve the company performance in China. This corresponds to hypothesis 1 that *family CEOs could improve company benefits in China*. They select the whole family enterprises listed on the Shenzhen and Shanghai Chinese Stock Exchanges as their sample. They also exclude banks and other firms with missing data or listed on another stock exchange and finally they collect 913 firm-years from 2004 to 2007. They use both market measure and accounting measure to appraise enterprise performance. The model for multivariate analysis is

$$(10)\text{Company Performance} = \beta_0 + \beta_1 (\text{Family CEO}) + \beta_2 (\text{moderating variables}) + \beta_3$$

(control variables) + ε

Table 2. The variables description for Cai, Luo and Wan' paper

Dependent variables:

- *Firm performance* = ROA and Tobin's Q (non-circulation share's market value = circulation share's market value)

Independent variables:

- *Family CEO* = dummy variable (family CEO = 1, CEO is family member; family CEO=0, otherwise zero)

Moderating variables:

- *Cash-flow rights* = ultimate family ownership along the control chain
- *Control divergence* = ultimate family control / ultimate family ownership (example in figure 1.)
- *MLSS* = dummy variable (MLSS = 1, nonfamily stakeholder holds over 10 percent shares; MLSS = 0, otherwise)

Control variables:

- *Firm size* = Ln(total assets)
 - *Company leverage* = total debt / total assets
 - *Growth opportunities* = whole capital costs / total assets
 - *Company age* = since IPO
 - *12 industry dummies*
-

Their paper focuses on correlations in family CEO and family company performance. Besides, they also test whether these moderating variables can affect family CEOs' influence. In their results, they suggest that a family CEO can significantly improve company performance on ROA and Tobin's Q. Cash-flow rights and MLSS can positively and significantly affect ROA and control divergence has negative effects on both Tobin's Q and ROA.

Luo, Wan, Cai and Liu (2013) study correlations in multiple large shareholder structure (MLSS) and company performance. This corresponds to hypothesis 3 that *existences of multiple large shareholder structure could improve company performance*. They select all family companies listed on the China Accounting and Stock Market Research database. They also exclude banks and other firms in a state of ST or with incomplete data and finally they collect 379 listed family companies and 927 firm-years from 2004 to 2007. In this paper, they only employ Tobin's Q to check company performance. The model of multivariate analysis is

$$(11) \text{Company Performance} = \beta_0 + \beta_1 (\text{MLS structure-presence}) + \beta_2 (\text{moderating variables}) + \beta_3 (\text{control variables}) + \varepsilon$$

Table 3. The variables description for Luo, Wan, Cai and Liu' paper

Dependent variables:

- *Firm performance* = Tobin's Q (non-circulation share's market value = 30% * circulation share's market value)

Independent variables:

- *MLS structure-presence* = dummy variable (MLSS = 1, nonfamily stakeholder holds over 5 percent shares; MLSS = 0, otherwise)

Moderating variables:

- *NERI's marketization index* = the level of China's regional formal institutions

Control variables:

- *Company size* = Ln(total assets)
 - *Company leverage* = total debt / total assets
 - *Sales growth* = the change ratio in sales year-on-year
 - *Tangible assets* = tangible assets / total assets
 - *12 industry dummies*
-

They use both FGLS and OLS regression analyses to support the presence of MLSS could improve family corporations' performances. In addition, the moderating variable can affect this relationship. High level of formal institution makes the positive influence increase more quickly than low level of formal institution.

4. DATA COLLECTION AND METHODOLOGY

4.1. Sample

The sample of this paper are companies listed on the Small and Medium Enterprise Board from 2009 to 2013. Unlike companies listed on the main boards such as Shanghai and Shenzhen Chinese Stock Exchanges, companies listed on SME Board have less pyramid ownership structures and cross shareholdings. And they want to be listed mainly because of the main business and the main assets instead of money encirclement. Besides, small and medium listed companies have more exact and clear internal relationship because of short listed time. Therefore, companies listed on the SME Board are suitable for family ownership structure researches and the results will be more reliable. 273 corporations are listed on the Small and Medium Enterprise Board in 2008 and companies should be continuous listed from 2008 to 2013. Consequently, the sample includes 273 listed companies and 1,365 firm-year observations.

4.2. Data Collection

The information about family ownership, family CEO and multiple large shareholders is hand-collected. From “CNINFO” website (<http://www.cninfo.com.cn>) created by Shenzhen Stock Exchange, ten largest shareholders and executives can be obtained. Enterprises, where the family or ultimate stockholder is the largest stockholder and he/she owns over one-tenth of stocks, are identified as family companies. To make sure whether a family is the largest shareholder, searching engines are used to find out the relationship between these ten largest shareholders. Similarly, the family CEO can be made certain. In these family companies, the second largest shareholder is also

checked. If the second largest shareholder holds more than ten percent shares, multiple-large-shareholder structure exists.

Other financial data about sample is collected from China Stock Market and Accounting Research (CSMAR) database. (<http://www.gtarsc.com/>)

4.3. Approach and Model

4.3.1. Variables

Dependent variable is firm performance. According to previous empirical studies, this paper chooses market measure and accounting measures as the dependent variables. Therefore, the explained variables are Tobin's Q and ROA, ROE.

Dependent variables are family firm, family CEO, family ownership and multiple large shareholder structure. These four dependent variables are chosen in accordance with four hypotheses. Family firm, family CEO and multiple large shareholder structure are dummy variables. Family ownership equals to percentages of stocks that under the control of families or the ultimate stockholder.

Control variables are company size, company leverage, growth opportunities, company age and company risk. The natural logarithm of total assets measures company size. Larger companies can perform better than small companies based on economy of scale and the finance resource. Hence, firm size can affect company performance and it should be included. Firm leverage is calculated by dividing the long and short debt by whole assets. Higher company leverage means more debt it borrows and therefore the company need to pay more interest to debt investors. Increasing interest payment can harm company performance. Therefore, firm leverage should be included in the control variables. Growth opportunities is calculated by

dividing the research & development costs by all sales. The growth opportunities are important for better performance and they should be contained in multivariate analysis. Firm age is measured by years since initial public offer. Because older companies tend to have better firm governance mechanisms and higher information liquidity. Older companies can perform better than younger companies, therefore, firm age is also an important control variables. Companies risk is described by volatilities of companies' stock return and it is necessary to be added in the regressions. The more stock return volatility, the more risk that the company will have. Intangible asset shows the percentage of intangible asset in the whole assets. The intangible asset includes branding and popularity and more intangible asset means more market value (Gutiérrez & Pombo 2009). Therefore, the relationship between intangible asset and total assets is positive. The variable descriptions can be seen from table 4.

Table 4. Variables and calculations

Type	Variable	Symbol	Calculation
Explained variables	ROA	ROA	$ROA = (\text{after-tax interest} + \text{net earnings}) / \text{total assets}$
	ROE	ROE	$ROE = \text{net earnings} / \text{total shareholders' equity}$
	Tobin's Q	TQ	$TQ = [\text{tradable stocks' market price} * (\text{tradable} + \text{non tradable stocks}) + \text{total debt}] / \text{total assets}$
Explanatory variables	Family company	FF	FF = 1, family firm FF = 0, nonfamily firm
	Family CEO	FC	FC = 1, family CEO FC = 0, nonfamily CEO
	Family ownership	FO	FO = the ratio of shares held by the family or the ultimate individual

	Multiple large shareholder structure	MLSS	MLSS = 1, multiple large shareholder structure presences MLSS = 0, no multiple large shareholder structure presences
Control variables	Firm size	FS	FS = Ln(total assets)
	Firm leverage	FL	FL = total debt / total assets
	Growth opportunities	GO	GO = Research & Development cost / total sales
	Firm age	FA	FA = years since IPO
	Intangible asset	IA	IA = intangible asset / total assets
	Return volatility	FR	FR = stock return volatility per year

4.3.2. Models

The main task is to figure out associations between family-ownership and company performances. And three other hypotheses can test why family firms perform different with nonfamily firms. However, it is without controversy that many other factors besides family company can affect company performance. Most factors mentioned in the front part may bring greater influence on firm performance. They are regarded as control variables. Consequently, they are contained in the multivariate model. Multivariate analysis includes both explanatory and control variables. The models are as followed:

$$(12) \text{Company Performance} = \beta_0 + \beta_1 (\text{family-company}) + \beta_2 (\text{control-variables}) + \varepsilon$$

$$(13) \text{Company Performance} = \beta_0 + \beta_1 (\text{family-CEO}) + \beta_3 (\text{control-variables}) + \varepsilon$$

$$(14) \text{Company Performance} = \beta_0 + \beta_1 (\text{family-ownership}) + \beta_3 (\text{control-variables}) + \varepsilon$$

$$(15) \text{Company Performance} = \beta_0 + \beta_1 (\text{MLS structure-presence}) + \beta_3 (\text{control-variables})$$

$$+ \varepsilon$$

5. EMPIRICAL RESULTS

5.1. Descriptive Statistics

Enterprises in our sample can be categorized into fifteen different industries. The distribution of family companies and nonfamily companies in different industries can be seen from table 5.

Table 5. Family companies' distribution

Industries	Nonfamily companies	Family companies	companies	Percent companies in industry	family in industry
A Agriculture	3	2	5	40.00%	
B Mining	2	1	3	33.33%	
C Manufacturing	148	67	215	31.16%	
D Utilities	1	1	2	50.00%	
E Construction	8	0	8	0.00%	
F Wholesale & Retail	3	4	7	57.14%	
G Transportation	1	1	2	50.00%	
H Hotels & Catering	1	0	1	0.00%	
I IT	6	7	13	53.85%	
J Finance	1	0	1	0.00%	
K Real Estate	5	2	7	28.57%	
L Business Support	2	1	3	33.33%	
M Research & Development	2	0	2	0.00%	
N Environmental Protection	3	0	3	0.00%	
R Media	1	0	1	0.00%	

All	187	86	273	31.50%
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It can be observed that most companies of the sample belong to manufacturing industry. In manufacturing industry, approximately one-third companies are family companies, which is similar to the whole sample. There are no family companies existing in finance, research & development, environmental protection and media industries. In wholesale & retail industry, the ratio of family companies is the largest, reaching 57.14 percent. In utilities, wholesale & retail, transportation and IT industries, nearly more than half enterprises are family controlled.

Although in this sample, the ratio of family firms is not as large as in other Asian countries. The ratio is still more than one-third which is like the proportion of family corporations in S&P 500. The proportions of family enterprises in different industries are different and the differences are large.

Table 6 describes descriptive statistics for all companies. These descriptive statistics includes means, medians, maximums, minimums and standard deviations values for the control variables, dependent variables and family ownership in the sample. Because time-period is 5 years, family companies can become nonfamily companies and nonfamily companies can also become family companies in these 5 years. To adjust these changes in enterprise types, the family company is identified when the family control this company at least one year and these means are calculated by averaging across years. Then to get the mean for the sample, dividing these results by firm numbers.

Table 6. Summary statistics

	Mean	Median	Maximum	Minimum	Std. Dev.
Firm age	4.892	4.920	9.520	1.270	1.895
Firm leverage	0.425	0.421	1.293	0.018	0.197

Firm risk	0.449	0.443	0.743	0.231	0.087
Firm size	21.350	21.256	26.871	18.594	0.963
Growth opportunity	0.005	0.000	0.361	0.000	0.023
Intangible asset	0.047	0.038	0.895	0.000	0.051
ROA	0.048	0.044	0.374	-1.189	0.070
ROE	0.044	0.081	0.708	-43.966	1.200
Tobin's Q	2.906	2.337	15.065	0.883	1.846
Family ownership ratio	0.098	0.000	0.735	0.000	0.162

Growth opportunity can be obtained by dividing research & development costs by total sales. In table 6, average growth opportunities is only 0.005 and the biggest growth opportunity is only 0.361. The average of firm leverage is 0.42465. The average firm size is 21.350, the maximum is 26.871 and the minimum is 18.594. That is to say, the differences about firm size among these 273 firms are not that big. Company age is the age after IPO and average company age is 4.892. Since the SME board is created since 2004, the average company age indicates that large amounts of enterprises in our sample are created in 2008. Intangible asset equals to dividing intangible asset by the total assets. For this intangible asset, the maximum is 0.895 and the mean is only 0.047.

Tobin's Q and ROA, ROE are employed to check the company performances. Means of ROA, ROE are 0.048, 0.044 respectively and the mean of Tobin's Q is 2.906 which is the biggest. The Std. Dev. of Tobin's Q is the largest among three performance measurements. But the difference between maximum and minimum of ROE is the biggest.

Table 7. Correlation data

	FF	ROA	ROE	TQ	FC	FO	MLSS	FS	FA	GO	IA	FL	FR
FF													
ROA	0.04												
ROE	0.02	0.56											
TQ	0.11	0.41	0.01										
FC	0.71	0.04	0.01	0.06									
FO	0.89	0.04	0.01	0.12	0.66								
MLSS	0.50	0.01	0.00	0.05	0.40	0.30							
FS	-0.17	0.02	0.07	-0.44	-0.15	-0.15	-0.06						
FA	-0.06	-0.07	0.00	-0.30	-0.09	-0.08	0.00	0.25					
GO	0.02	0.08	0.01	0.18	-0.02	0.03	0.01	-0.07	0.02				
IA	0.01	-0.15	-0.22	0.07	-0.03	-0.01	0.01	-0.19	0.08	0.07			
FL	-0.13	-0.44	-0.10	-0.47	-0.12	-0.13	-0.08	0.49	0.08	-0.17	-0.04		
FR	0.05	-0.04	-0.02	0.32	-0.01	0.06	0.00	-0.31	-0.46	0.02	-0.03	-0.05	

Table 7 shows correlations among dependent variables, control variables and independent variables. Consistent with our main hypothesis, family ownership structure have positive correlations with accounting or market company incomes. The association between family firm and market measure of company performance is much stronger. These three correlations are consistent with the relationships of family ownership ratio and company performances. The presence of multiple large shareholder structure has no effects on ROE, but it has positive correlations with ROA and Tobin's Q. Company size, company age and company leverage have the negative relationship with company performance measured by Tobin's Q.

5.2. Univariate Analysis

Univariate analysis is the easiest statistical analysis. As the name suggests, there is only one variable in the univariate analysis. Analyzing problems between family firm and firm performance, the most important variable is family firm ownership. In table 8, the means of different variables are calculated for family corporations and nonfamily corporations respectively. In addition, table 8 provides the difference of means tests and t-statistic is used here to see if the difference is statistically significant. These means tests also use across year averages for each company.

Table 8. Differences tests for the averages

		Family companies	Nonfamily companies	<i>t</i> -values
1	Number of firms	86	187	
2	Family firm	0.310		
3	Family CEO	0.593		
4	MLSS	0.326		
5	Firm age	4.712	4.979	2.45**
6	Firm leverage	0.388	0.442	5.09***
7	Firm risk	0.455	0.446	-1.71*
8	Firm size	21.113	21.460	6.89***
9	Growth opportunity	0.006	0.004	-1.02
10	Intangible asset	0.047	0.047	-0.35
11	ROA	0.052	0.046	-1.45
12	ROE	0.072	0.031	-0.86
13	Tobin's Q	3.206	2.767	-3.84***

Notes: *, ** and*** denote coefficient significant at 10, 5 and 1 percent level respectively

Rows 2, 3 and 4 show family companies' characteristics and corresponding means for nonfamily companies are zero. In family companies, the average holdings for families

is 31 percent, which is close to the best “family holding” according to Anderson and Reeb (2003). Nearly 60 percent family companies hire CEOs based on family tie and 40 percent CEOs in family firms are hired from outside. 32.6 percent of family enterprises have the multiple large shareholder structure.

Rows 5, 6, 7, 8, 9 and 10 provide information about control variables. The means of firm leverage for family companies and nonfamily companies are 0.388 and 0.442 respectively. The family firm leverage is statistically significantly smaller than nonfamily firm. Firm size of nonfamily company is a little bigger than family company. And this difference in firm size is statistically significant. Family companies, on average, are younger than nonfamily companies. The company age difference is small but statistically significant.

Rows 11, 12 and 13 indicate company performance differences between family companies and nonfamily companies. As we can see from table 7 (employing ROA, ROE & Tobin's Q), family companies have positive correlations with company performances. Differences in table 8 indicate the family companies can perform better than nonfamily companies according to the Tobin's Q (market measure). And the difference is statistically significant. As adopting accounting performance measure (ROA and ROE), the family companies also show better performance than nonfamily companies but the difference is statistically insignificant.

5.3. Multivariate Analysis

Investigating correlations between family controlling and company performances is the major goal. The multivariate analysis includes other control variables which can make the influence of family ownership more exact. This paper uses panel least squares method for the regression analysis. The data periods include 5 years from

2009 to 2013 and cross-sections include 273 companies. The total panel observations is 1365. To control serial correlation, this paper adopts econometric technique: random-effects panel data regressions.

Table 9 shows regressions' outcomes for the correlation between family firm and company performance. Through accounting measures (ROE and ROA), columns 1 and 2 investigate the company benefits. In column 3, market measure (Tobin's Q) is adopted to show company performances. Dummy variable of family company is the independent variable and performance measures (ROA, ROE & Tobin's Q) are dependent variables. Regressions also include 6 control variables and adjusted R square. The adjusted R square shows the goodness-of-fit of the multiple regression analysis. If the adjusted R square is close to 1, the multiple regression analysis appears to have a better fit. And when you use this multiple regression model to predict, the results would be more reliable.

Table 9. Family ownership and company performance

	Accounting measure		Market measure
	1 ROA	2 ROE	3 Tobin's Q
(1) Intercept	-0.292*** (-6.20)	-2.095** (-2.26)	0.460*** (16.33)
(2) Family firm	0.001 (0.37)	0.040 (0.58)	0.005** (2.42)
(3) Firm age	-0.004*** (-4.17)	0.003 (0.14)	0.003*** (5.77)
(4) Firm leverage	-0.205*** (-21.35)	-0.930*** (-4.93)	-0.934*** (162.90)

(5) Firm risk	-0.027 (-1.28)	-0.058 (-0.14)	-0.172*** (13.52)
(6) Firm size	0.022*** (10.32)	0.129*** (3.10)	0.021*** (-16.69)
(7) Growth opportunity	0.054 (0.77)	0.282 (0.20)	0.088** (-2.12)
(8) Intangible asset	-0.143*** (-4.41)	-4.741*** (-7.42)	-0.078*** (4.04)
(9) Adjusted R square	0.284	0.066	0.961

Note: t-statistical values are in parentheses.

*, ** and*** denote coefficient significant at 10%, 5% and 1% level respectively.

Like what discussed before, family control can improve company performance. Relatively strong evidence can be seen from row 2, which can support family companies perform better than nonfamily companies. All the coefficients of family firm are positive when employing ROA, ROE and Tobin's Q. Especially, when measuring company income by Tobin's Q, family companies appear to significantly lead more benefits than nonfamily companies. Meanwhile, the adjusted R square is 0.961, which can show the regression is reliable. Even though, when using ROE as the measure of company performance, the performance difference seems to be larger than Tobin's Q. But this difference is statistically insignificant.

Consequently, the family firm has positive influences on firm performance. When using Tobin's Q, the positive influence is significant at 1 percent level. This provides support for the main research hypothesis. Therefore, the main hypothesis can be accepted.

Since family companies can perform different, reasons for these differences need to

be discussed. Corresponding with hypothesis 1, 2 and 3, model 1 to 6 in table 10a and model 7 to 9 can explain these reasons. This multivariate analysis also includes other six control variables. Regression analysis method in table 10a and table 10b is also panel least squares method. The data periods include 5 years from 2009 to 2013 and cross-sections include 86 family companies. Because the independent variables in table 10a and table 10b show the characteristics of family companies and the motivation is to know why family companies perform different, so the sample for model 1-9 is 86 family companies listed on SME board from 2009 to 2013. That is to say, nonfamily companies in previous sample are eliminated to get the new sample. The total panel observations is 430. Random-effects panel data regressions are used to control serial correlation.

Table 10a consists of 6 models and two kinds of accounting performance measures. Models 1, 2 and 3 use return on asset (ROA) to check the accounting measures of company performance. Models 4, 5 and 6 describe how dependent and control variables influence return on equity (ROE). In table 10a and table 10b, the results explain three relationships. Models 1, 4 and 7 show the relationship between family CEOs and family company performance. Models 2, 5 and 8 present the correlation between the ratio of family holdings and family company performance. Models 3, 6 and 9 report how multiple large shareholder structure works in family companies. These three relationship are derived from the main characteristics of family company and used to test hypothesis 1, 2 and 3.

Previous empirical studies support that family CEOs can benefit family company performance. They can bring unique and special skills to the family company which can improve both accounting profit and market profit of this family company. However, we get opposite results.

Table 10a. Regression results on family CEOs, family ownership and multiple large shareholder structure (accounting measures)

	Accounting measure(ROA)			Accounting measure(ROE)		
	1	2	3	4	5	6
(1) intercept	-0.239*** (-2.87)	-0.254*** (-2.98)	-0.248*** (-3.02)	-0.830*** (-3.24)	-0.861*** (-3.38)	-0.868*** (-3.46)
(2)family firm*family CEO	-0.002 (-0.40)			-0.013 (-0.77)		
(3)family firm*family ownership ratio		-0.023 (-1.19)			-0.021 (-0.34)	
(4)family firm*multiple large shareholder structure			-0.006 (-1.04)			-0.027 (-1.52)
(5)firm age	-0.007*** (-4.21)	-0.007*** (-4.29)	-0.007*** (-4.15)	-0.014*** (-3.24)	-0.014*** (-3.21)	-0.014*** (-3.16)
(6)firm leverage	-0.201*** (-11.95)	-0.201*** (-12.00)	-0.202*** (-12.00)	-0.334*** (-6.65)	-0.333*** (-6.62)	-0.419*** (-8.01)
(7)firm risk	-0.052 (-1.58)	-0.049 (-1.49)	-0.050 (-1.53)	-0.029 (-0.36)	-0.019 (-0.23)	-0.021 (-0.26)
(8)firm size	0.020*** (5.34)	0.021*** (5.49)	0.021*** (5.47)	0.053*** (4.43)	0.054*** (4.51)	-0.416*** (-3.50)
(9)growth opportunity	0.271* (1.87)	0.290** (2.00)	0.272* (1.88)	-0.136 (-0.32)	-0.100 (-0.24)	-0.114 (-0.27)
(10)intangible asset	-0.121 (-1.61)	-0.125* (-1.65)	-0.116 (-1.54)	-0.072 (-0.34)	-0.063 (-0.30)	-0.048 (-0.22)
(11) Adjusted-R square	0.284	0.347	0.347	0.115	0.113	0.119

Note: t-statistical values are in parentheses.

*, ** and *** denote coefficient significant at 10%, 5% and 1% level respectively.

Table 10b. Regression results on family CEOs, family ownership and multiple large shareholder structure (market measure)

	Tobin's Q		
	7	8	9
(1) Intercept	12.160*** (4.67)	11.504*** (4.49)	11.526*** (4.49)
(2)family firm* family CEO	-0.222 (-1.35)		
(3)family firm*family ownership ratio		0.131 (-1.35)	
(4)family firm*multiple large shareholder structure			0.033 (0.20)
(5)firm age	-0.145*** (-2.92)	-0.136*** (2.74)	-0.138*** (-2.78)
(6)firm leverage	-4.193*** (-8.01)	-4.175*** (-7.96)	-4.172*** (-7.94)
(7)firm risk	5.110*** (4.94)	5.356*** (5.25)	5.363*** (5.26)
(8)firm size	-0.416*** (-3.50)	-0.402*** (-3.38)	-0.401*** (-3.38)
(9)growth opportunity	23.619*** (5.21)	24.213*** (5.35)	24.317*** (5.38)
(10)intangible asset	-3.955* (-1.68)	-3.633 (1.54)	-3.684 (-1.57)
(11) Adjusted-R square	0.402	0.399	0.399

Note: t-statistical values are in parentheses.

*, ** and*** denote coefficient significant at 10%, 5% and 1% level respectively.

In the results of table 10a and table 10b, row 2 shows the coefficients of family COEs are negative which indicates the family CEOs harm family company performances. These three coefficients are not statistically significant, so we cannot find support for hypothesis 1. Obviously, more family companies should be added to the sample to get the significant results.

Family ownership structure and company performance have the nonlinear correlation and around 30 percent is the best percent of family holding (Andersen & Reeb 2003). Row 3 shows the correlation of family ownership ratio and family company performance. When referring to accounting performance measures, the ratio of family holdings increases and the family company performance decrease. But the increase in the ratio of family holdings may improve the Tobin's of family company. Because these three different coefficients are not statistically significant, hypothesis 2 cannot be supported.

Because these three coefficients show two opposite results, the robustness test should be adopted. In appendix, table 12 shows alternative regression techniques for the regression between family ownership and family company performance. Some signs of positive or negative for coefficients change, which means the models in table 10a and table 10b has no robustness. More work need to be done in order to improve the robustness. Such as selecting more samples, changing some variables and using other econometric techniques.

Multiple large shareholder structure is considered to be a good way in decreasing the second kind of agency costs. By dispersing the control rights of major shareholders, balance mechanism can be created. As mentioned in hypothesis 3, the presence of multiple large shareholder structure should increase family company benefits. Row 4 presents that how the existence of multiple large shareholder structure affects family

enterprise performance. When using accounting performance measures, family companies with multiple large shareholder structure perform worse. But the market value of these family company with multiple large shareholder structure are larger than family companies without it. These three different coefficients in row 4 are also statistically insignificant, therefore hypothesis 3 cannot be supported.

Rows 7, 9 and 11 show the control variables: growth opportunity, firm risk and intangible asset cannot significantly affect accounting measures (ROA and ROE) of company performance. Therefore, existences of these variables would make the results unreliable. To get significant results, models in table 11 abandon growth opportunities, firm risk and intangible asset and finally obtains significant results.

Table 11. Regression results about these relationships after abandoning unnecessary control variables

	ROA		ROE		Tobin's Q	
	1	2	3	4	5	6
1 Intercept	-0.314*** (-4.28)	-0.310*** (-4.20)	-0.858*** (-4.61)	-0.832*** (-4.43)	17.076*** (7.04)	17.710*** (7.32)
2 family		-0.001 (-0.21)		-0.01 (-0.810)		-0.443*** (-2.63)
firm*family						
CEO						
3 family	-0.006 (-1.13)		-0.027** (-1.99)		-0.005 (-0.03)	
firm*multip le large shareholder structure						
4 firm age	-0.005***	-0.006***	-0.011***	-0.011***	-0.217***	-0.226***

	(-3.80)	(-3.85)	(-2.82)	(-2.94)	(-4.46)	(-4.68)
5 firm	-0.218***	-0.218***	-0.333***	-0.330***	-4.479***	-4.546***
leverage	(-14.09)	(-14.02)	(-8.46)	(-8.36)	(-8.74)	(-8.94)
6 firm size	0.023***	0.022***	0.053***	0.052***	-0.526***	-0.541***
	(6.19)	(6.12)	(5.70)	(5.53)	(-4.35)	(-4.50)

Note: t-statistical values are in parentheses.

*, ** and *** denote coefficient significant at 10%, 5% and 1% level respectively.

Because the regression results for the correlation between the ratio of family holdings and family company performance are still statistically insignificant, they are not put in table 11. After getting rid of these three irrelevant control variables, hypothesis 1 and hypothesis 3 finally can be examined.

Row 2 shows how the family CEOs affect the family company performance. If there is family CEOs, both market measure (Tobin's Q) and accounting measures (ROA & ROE) of family company will decrease. And the family CEOs can significantly harm the Tobin's Q of family company. Therefore, hypothesis 1 should be rejected. The correlation between family CEOs and family company performance is negative.

Row 3 presents how the multiple shareholder structure works in family enterprises. The existence of multiple large shareholder structure can significantly decrease family companies' accounting value measured by both ROA and ROE. The presence of multiple large shareholder structure can also harm Tobin's Q, which is opposite to table 10. Therefore, hypothesis 3 should be rejected. The multiple large shareholder structure could decrease family company performance in SME board.

6. SUMMARY AND CONCLUSION

6.1. Conclusions

This paper investigates correlations between family ownership and company performances in China by selecting sample from SME board from 2009 to 2013. There are 273 companies in the sample and 1365 observations in the data. For previous empirical studies, they pay more attention on correlations between family ownership structure and enterprise performances in different countries. This thesis also examines why family corporations perform different.

The main findings are that family enterprises outperform nonfamily enterprises in China. Furthermore, the family ownership can statistically significantly improve company market profit (Tobin's Q). Contrary to most of the previous papers, this thesis found no enough evidence can say the family ownership could improve the accounting profit (ROA and ROE) of company.

As for the reasons why family corporations perform better than nonfamily corporations, this thesis considered three characteristics of family enterprise: family CEOs, the ratio of family holdings and multiple large shareholder structure. Unfortunately, no evidence can indicate that the ratio of family holdings and family company performance have correlation. This paper failed to reject the hypothesis 2 that more ratio of family holdings could increase family company income.

Other empirical findings in this thesis indicate that family CEOs can harm family company performances. Significant evidence is shown in the results that family CEOs and Tobin's of family enterprises have negative correlations. Unlike previous studies about multiple large shareholder structure in China, the findings show that multiple

large shareholder structure would significantly reduce the return on equity of family enterprises.

6.2. Limitations

Since data about family companies should be manually collected, it costs too much time. This thesis only choose enterprises listed on SME board as the sample which limits the practicability of conclusions. Because listed family companies only account for a small part of all family companies. In addition, some variables in this thesis can be only obtained from corporate annual reports. Information about family relationships between shareholders can be only got by searching engine. As a result, the reliability of data can be affected.

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APPENDIX

APPENDIX 1. Table 12

Table 12. Regression results using generalized linear model (Quadratic Hill Climbing)

	Accounting measure		Market measure
	ROA	ROE	Tobin's Q
Intercept	-0.245	-0.775	11.504
Family firm *	-0.023	-0.029	0.131
Family ownership ratio			
Firm age	-0.007	-0.012	-0.136
Firm leverage	-0.201	-0.321	-4.175
Firm risk	-0.049	-0.068	5.356
Firm size	0.021	0.051	-0.402
Growth opportunity	0.290	0.086	24.213
Intangible asset	-0.125	-0.009	-3.633