Abstract

Although understudied in emerging markets, in modern globalised economies, family business internationalization is becoming an increasingly more relevant topic. Consequently, our research focuses on investigating the listed family firms in Chinese Mainland in order to fill the research gap. Specifically, we studied the influence of family involvement in ownership and management of companies on their degree of internationalization. Existing theories on internationalization mainly focused on economic aspects, while we adopt the perspective of socio-emotional wealth (SEW) which refers to non economic aspects to investigate this subject. We take listed family firms in Chinese Mainland as our sample. The results show that family involvement in ownership is positively associated with the degree of internationalization and family involvement in management has no certain relation with the degree of internationalization. This is a different finding in this area since previous researches have not taken Chinese listed family firms as samples before. Future research can improve the SEW theory by testing wider samples.

Keywords: Family business, Family involvement, Degree of internationalization, SEW perspective, China
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# Table of Contents

1. Introduction ................................................................................................................................. 1

2. Theoretical background and Hypotheses Development ............................................................... 5
   2.1 Definition of Family business ..................................................................................................... 5
   2.2 Perspectives on Firm Internationalization ............................................................................... 5
       2.2.1 Benefits and costs of internationalization ......................................................................... 6
       2.2.2 Deciding the Degree of internationalization ..................................................................... 7
   2.3 Internationalization of Family Business ................................................................................... 8
       2.3.1 Family firms internationalization from a socio-emotional wealth perspective .............. 10
       2.3.2 Hypotheses based on SEW perspective ......................................................................... 11

3. Methodology .................................................................................................................................. 15
   3.1 Sample Selection ....................................................................................................................... 15
   3.2 Variables ................................................................................................................................... 17
       3.2.1 Independent Variables .................................................................................................... 17
       3.2.2 Dependent Variables .................................................................................................... 19
       3.2.3 Control Variables ......................................................................................................... 19
   3.3 Statistical Method ..................................................................................................................... 21
   3.4 Reliability and Validity ............................................................................................................. 22

4. Analysis and Results ..................................................................................................................... 23
   4.1 Descriptive Statistics ................................................................................................................. 25
   4.2 Regression Analysis .................................................................................................................... 28
   4.3 Residual Check .......................................................................................................................... 29
   4.4 Results for Hypotheses ............................................................................................................ 30

5. Discussion ...................................................................................................................................... 31
   5.1 In-depth analysis ....................................................................................................................... 31
       5.1.1 Family involvement in ownership and its’ effect on the degree of internationalization .... 31
       5.1.2 Family involvement in management and its’ effect on the degree of internationalization ... 32
   5.2 Managerial Implications .......................................................................................................... 33

6. Conclusion ...................................................................................................................................... 35
   6.1 Contributions ............................................................................................................................. 35
6.2 Limitations and Future Research

References

Appendix I
1. Introduction

A sizeable percentage of businesses all over the world are family controlled (Chen, Cheng & Dai 2013), and they greatly contribute to the global economy. It has been reported that the top 100 family businesses in North America (Campden FB, 2011) generated approximately 11% of the total GDP in 2010, while the top 100 family firms in European Union contributed nearly 14% of the total GDP in 2012. In effect, the global economy is greatly dependent on family controlled businesses (PWC family matters, 2009). While in modern globalized trade economy, the question, ‘how to maintain growth in a wider expanding economy?’ has become a crucial issue for family firms today.

Internationalization could be a good solution for solving the growth problem and an ambitious vision for family firms. Localization theories state that internationalization enables firms to exploit new customer, labor, and factor markets (Davidson, 1980; Dunning, 1994). To be more precise, family firms could offer goods and services to foreign markets and acquire new technologies and labor force. As a result, internationalization provides fertile soil and opportunities for growth for family firms (Pukall & Calabrò 2014). Furthermore, it gives their successive generations opportunities of employment, or simply increases distributable dividends (Claver, Quer & Rienda, 2009).

In general, the family controlled business model has received lots of attention in academic research to date (e.g. Berrone, Cruz & Gomez-Mejia. 2012). Although there is a vast amount of researches on the internationalization of family business, they have mainly focused on developed countries (Aldrich & Waldinger, 1990). This becomes of special interest, especially since family firms in emerging markets such as Asia, and the Middle-East are more expected to attempt to aggressively expand than those in developed countries (PWC, 2014 autumn). Therefore, emerging markets show a significant potential for internationalization. However, whether the findings relevant to developed markets can be generalized to emerging markets remains unknown (Fernandez & Nieto, 2006).

Hence, studies on developing countries are lacking compared to those on developed countries. They are quite valuable yet. Taking export and Foreign Direct Investment (FDI), two vital modes
of international business (Liang, Cui and Wang, 2014), as example, China’s FDI is dominated by large, state-owned firms that benefit from a variety of government aid which is not available for small private firms (Alon, Fetscherin & Gugler 2012). Even though Chinese private firms, among which more than 85% are family businesses, contribute a large volume in FDI (Liang et al, 2014). As a matter of fact, private firms have to rely on their own entrepreneurial talent and business relationships in overseas markets (Alon et al., 2013). Compared to developed countries that provide aid and welfare for private business, Chinese family firms have to depend on their own intelligence and experience more. Analyzing Chinese family firms will contribute to the study on the internationalization of Chinese firms.

As Chrisman, Chua, Pearson & Barnett (2012) have indicated, it is necessary for a study on family business to differentiate family firms from non-family firms. The most efficient way to differentiate them is to capture the main characteristics of family businesses compared to non-family businesses. Family firms are mainly characterized by the fact that ownership is concentrated in the family and that family members are actively involved in the firm’s management (Tsao and Lien, 2011). These characteristics actually refer to two aspects of family control: family involvement in ownership (FIO) and family involvement in management (FIM; Sciascia and Mazzola 2008). Both of them have strong impact on firm’s operation (Chen et al. 2013). Prior studies regard them as two interdependent or covariant factors (e.g., Fernandez & Nieto, 2006; Graves & Thomas, 2006), thus they are rarely treated as different variables in studies. Liang et al. (2014) recently argued that family involvement in ownership and family involvement in management will influence emerging market firms’ international business respectively. Thus, they should be considered as separate in studies focusing on the internationalization of family business. Therefore, we adopt these characteristics of family firm as two independent variables which can distinguish family firms from non-family firms adequately.

Existing literature shows inconsistent results in the field of family business internationalization and it is a subject of heated debate. While some researchers argued that there is a positive relationship between family involvement and internationalization (e.g. Carr & Bateman, 2009; Zahra, 2003), others suggested that family involvement is negatively associated with internationalization (e.g. Fernandez & Nieto, 2006; Graves & Thomas, 2006). Some researchers
even present no difference between family firms and non-family firms in internationalization practices (e.g. Cerrato & Piva, 2010; Pinho, 2007). The reason behind this is that family firm research remains in a pre-paradigmatic state that is cluttered by conflicting theories and findings. Meanwhile, significant open questions regarding the typical strategies and performance attributes of family firms may also lead to inconsistencies in theory (Schulze & Gedajlovic, 2010). Indeed, the advantages and disadvantages of many theories concerning family firms can be viewed as a debate (Essen, Carney, Gedajlovic & Heugens, 2015).

Since there are conflicting opinions towards of family firms, we aim to find the influence of family involvement on internationalization within the context of family firms for the emerging market of China. As internationalization is most commonly measured in degrees (Chin-Chun, H 2006), we consequently formed our research question as follows.

**How does family involvement impact on the degree of internationalization of Chinese family firms?**

We adopt the socio-emotional wealth (SEW) perspective to explain the relationship between family involvement (in ownership and management) and the degree of internationalization. The SEW perspective suggests that family members could benefit from the non-economic aspect of the business in emotion (Gomez-Mejia, Takacs-haynes Nunez-Nickel, Jacobson & Noyano-Fuentes 2007). Indeed, they make strategies which can fulfill their motivation to preserve and enhance their control over the firm which indicates their SEW endowment. In other words, family members emphasize more on their governance of the firm than the real benefit some time. It’s inconsistent with most previous premise that the paramount for a company should be financial benefits (Dunning, 1981). SEW is becoming much more popular to describe the influence of family involvement on internationalization today (Menéndez- Requejo, 2005; Segaro, 2010; Kontinen & Ojala, 2011c; Roida & Sunarjanto, 2012; Sciascia Mazzola, Astrachan, & Pieper. 2012b).

In conclusion, this study can contribute mainly in two aspects. Firstly, there is almost no quantitative study on the relationship between family involvement and the internationalization of emerging market firms. The reason may originate from lacking common definition for family businesses especially when measuring ownership and management (Chrisman et al., 2004; e.g.
Ding, Qu & Zhuang., 2011, Xu and Yuan, 2013). Thus, we are going to fill this research gap with evidence from China.

Secondly, it is still inconclusive whether family involvement has positive influence on internationalization or not from an overall view of different theories (Schulze & Gedajlovic, 2010). Moreover, we found that there is no research specifically through an SEW perspective focusing on the same topic as we do. For example, it used to be studied through resource-based view (e.g. Graves & Thomas, 2008), network-based view (e.g. Coviello, 2006) etc. A comprehensive integrated theory may appear in the future that will be based on the overall view on this field. Thus, this study tends to make up for this vacancy as well.

In subsequent chapters, an overall review of the literature and theories about family business internationalization will be illustrated, especially the relevant theories about the variables used in this study. Afterwards, we will deduce the hypotheses according to existing theories on SEW perspective. Then, the methods of data collecting and analyzing will be described including the measurements of each variable. Furthermore, a demonstration of results and discussions obtained by analyzing the data will be made, along with some implications. Finally, we will make a conclusion and limitations which may guide further studies in this field.
2. Theoretical background and Hypotheses Development

2.1 Definition of Family business

A proper definition of family business or family firm is necessary for an effective investigation. Although there is no universal standard or definition about family business, there exist many different definitions. Considering the complex situation of no common agreed upon standard, we adopt the definition derived from Miller (2007) who suggested that family firms are those in which multiple members of the same family are involved as major owners or managers, either contemporaneously or over time. This was further developed by Sciascia and Mazzola (2008) stating that family firms are those in which the family controls the business through involvement in ownership and management positions. Based on this, we will take these two main characteristics, family involvement in ownership (FIO) and family involvement in management (FIM) as independent variables. They can be further understood as family ownership and family presence in the board of directors (Anderson & Reeb, 2003).

Family involvement in ownership and family involvement in management are different although they are related to each other (Liang et al 2014). Some family members may have a high percentage of ownership but a low involvement in management at the same time. Furthermore, FIO and FIM have different emphasis on family control on the firm. FIO focuses on family’s role as owners, while FIM focuses on family’s role as managers in the firm (Liang et al, 2014). Because of the different roles that these two factors play for a family firm, there may be some differences in strategy making, part of which is internationalization. Therefore, we use these two factors to explain the family control in family firms.

2.2 Perspectives on Firm Internationalization

Firm internationalization can be described from various perspectives which shed more light on aspects of internationalization.

In behavior theory, the Uppsala model (Johanson and Vahlne, 1977) suggested that firms incrementally internationalize their operations along an establishment chain. The whole internationalization process is further divided into several stages. The main idea of this model is
that firms should go international step by step starting with a low psychic distance market. The model was revised later by mainly adapted with the factor of network (Johanson & Vahlne, 2009; Pukall & Calabrò, 2014).

From the perspective of innovation a shift has taken place towards describing the discovery of international markets (Liesch and Knight, 1999), as an outcome of a strategic search for opportunities (Knight 2000) or as a result of successful network collaboration (Welch and Welch, 1996). Meanwhile, the performance and innovation implications of internationalization are cited by factors (Tsao and Lien, 2011) such as achieving both economies of scale and scope (Tallman and Li, 1996), utilizing knowledge and ideas from multiple countries (Von Zedtwitz and Gassmann, 2002), and generating the resources required to sustain a large-scale research and development (R&D) operation (Kobrin, 1991).

From an economic perspective, Dunning’s (1980) eclectic paradigm focused on the advantages which family firms have within three aspects, ownership, location advantages and internalization(e.g. Pinho, 2007). Other paradigms such as transaction cost economics, Uppsala model theory, and network theory are all based on this perspective (Graves and Shan, 2014)

As for the resource-based view of internationalization, it has been used to examine not only how a firm’s stock of resources influences its ability to internationalize but also how the firm’s resources may affect the financial performance of a firm’s international activities (Dhanaraj & Beamish, 2003; Graves and Shan, 2014).

While based on a geographic perspective, recent studies explicitly or implicitly assume that sales generated outside the home country are regarded as internationalization (Pukall & Calabrò, 2014). The percentage of sales outside the home country to total sales is the most common measurement accordingly (e.g. Calabrò, Mussolinò, & Huse, 2009; Westhead & Howorth, 2006).

2.2.1 Benefits and costs of internationalization

The literature has well stated possible benefits of internationalization. As argued by Dunning’s (1981) well-known eclectic paradigm, firms internationalize to gain three economic benefits. The first one is to utilize their ownership-specific advantages in technology, marketing, financial resources, and other resources and capabilities. The second one is to exploit efficiencies derived
from integrating worldwide operations. The last one is to take advantage of the host countries’ comparative advantages such as natural resources, or cheap labor, abundance of financial, or favorable government regulations. There are also some other benefits, such as overcoming unfavorable competitive and institutional environments (Boisot & Meyer, 2008), or upgrading capabilities rather than exploiting their competitive advantages (Luo, 2000).

However, there are also some risks and uncertainties regarding internationalization, especially for Chinese family firms which lack experience in exporting to foreign countries (Liang et al, 2014). Internationalization requires huge resource commitment and may take several years to gain profits (Zahra, 2003). Emerging markets have undeveloped capital markets, hindering their efforts to secure financial resources for internationalization (Liang et al, 2014). Liang et al (2014) also argued that international expansion also requires diverse resources and skills to identify business opportunities, to develop international suppliers and client bases, and to deal with the difficulties in integrating and coordinating domestic and foreign operations. Therefore, as we can see above, there are also a lot of problems accompanying internationalization.

As a result, in order to balance the benefits and costs, family firms need to decide to which extent they should commit to internationalization. That is to say family firms should have a clear thought on the degree of internationalization which will be discussed in the following section.

### 2.2.2 Deciding the Degree of Internationalization

Besides different perspectives, aspects of internationalization have been studied in many dimensions in the existing literature, including entry modes (e.g. Pinho 2007; Kuo, Kao, Chang, & Chiu, 2012), degree of internationalization (e.g. Stewart, 1997; Sullivan 1994), speed of international expansion (e.g. Chetty, Johanson & Martín, 2014), and etc. Among all the dimensions, degree of internationalization will be studied in our paper.

A review on the definition of the degree of internationalization (DOI) is necessary. Sullivan (1994) suggested that the DOI of a firm has three attributes: performance (what goes on overseas); structure (resources placed overseas) and attitude (top management’s attitude towards international business). Consequently, it can be measured by the ratio of foreign sales to total sales (FSTS); ratio of foreign assets to total assets (FATA); ratio of foreign affiliates to total
affiliates; international experience of top management; psychic dispersion of international operations (Stewart, 1997). Among all the measurements of DOI, FSTS comes to be the most common one (e.g. Geringer, Paul & Richard 1989, Collin 1990). Thus, we choose this as the most appropriate to be applied in this thesis.

2.3 Internationalization of Family Business

Various perspectives have been considered in previous studies on how to view family business internationalization, including network relationship perspective (Wright, Filatotchev, Hoskisson, & Peng, 2005), resource-based perspective (Barney, 1991) and socio-emotional wealth perspective (SEW; e.g. Gomez-Mejia, Cruz, & De Castro, 2011) etc. It’s interesting that the relationship between family firms and internationalization is a complicated one or even inconsistently explained from different perspectives. Therefore, it is necessary to have an overview of these different perspectives. Then, we will introduce the SEW perspective to get involved in the non-economical aspects which previous perspectives have neglected.

On the one hand, network relationships are a special factor for family businesses and play an important role (Coviello, 2006). Even the revised Uppsala internationalization model of Johanson and Vahlne (2009) is based on the network view of internationalization (Pukall & Calabrò, 2014). Considering financial aspects, network relationship also represents the capability which enables the firm to complement its weakness in financial resources (Wright et al, 2005) especially through family-specific networks.

On the other hand, discrepancies exist in network based view as well. Family firms are keen to invest locally because members of the owning family often have a robust personal local network ties (Pukall & Calabrò, 2014), which means solid network within the immediate boundaries may motivate family firms to stay in the local market. However, researchers suggested that it’s more likely and easier for family firms to build up relationship with a foreign family firm while internationalizing (Swinth & Vinton, 1993, Fernández & Nieto 2006; Kontinen & Ojala 2011). Internationalization requires external learning which when satisfied by networking, may also be the trigger that enables a family firm to venture abroad inside its existing network and it may act as the bridge for the firm to enter the foreign market (Johanson & Vahlne 2009) In this sense, the
existing network can also be a driving force for firms to internationalize (Coviello 2006; Johanson and Vahlne 2009).

From a resource-based perspective, the financial resources of family firms are found to be lower than non-family firms (Pukall & Calabrò, 2014), which leads to a negative impact on internationalization (Graves & Thomas, 2008). As for the managerial capabilities regarding internationalization the knowledge of family members is thought to be underdeveloped by most researchers (Pukall & Calabrò, 2014; e.g., Graves & Thomas, 2004; Okoroafo, 1999). The lack in both financial resources (caused by a reluctance to raise capital which may threaten their independence (Pukall & Calabrò, 2014)), and knowledge in international management (e.g., Graves & Thomas, 2004; Menéndez Requejo, 2005), has a negative impact on the internationalization of family firms.

However, some studies suggest that family firms are able to overcome most of their weaknesses regarding internationalization through family-specific resources, such as altruism, trust and social capital (e.g., Zahra, 2003; Calabrò & Mussolino, 2011; Segaro, 2010). From this point of view, firms with family involvement have a positive influence on internationalization (Carr & Bateman, 2009).

Nonetheless, the perspectives mentioned above form a classic approach to the internationalization theory which typically focuses on potential economic benefits and associated motivations. They usually neglect the influence of family control on internationalization. However, a growing trend towards family control on internationalization has emerged since many researchers have suggested that firms with significant family control are unique in their ownership and governance systems and they are likely to affect firms’ internationalization decisions (Zahra, 2003; Graves & Thomas, 2006).

Hence, instead of utilizing the classic theory, we decided to use a socio-emotional wealth (SEW) perspective which emphasizes how a firm’s non-economic, socio-emotional concerns may affect its internationalization strategy. And we will explain this perspective in detail in the next part.
2.3.1 Family firms internationalization from a socio-emotional wealth perspective

We choose socio-emotional wealth (SEW) as our theoretical perspective for three reasons. Firstly, it’s crucial to have a set perspective to critically organize the theoretical arguments and form hypotheses. Secondly, SEW is a central reference point (Gomez-Mejia et al., 2011) and a unique factor for family firms (Berrone et al., 2012). Lastly, inconclusiveness in this field can be explained through the lens of SEW (Pukall & Calabrò 2014).

People may subconsciously think that family firms are conservative. Nevertheless, there is an interesting phenomenon showing that family firms prefer to invest or look for opportunities abroad more than non-family firms both in developed and developing countries (Evila-Piva & Cristina Rossi-Lamastra & Alfredo De Massis 2013; PWC, 2014 autumn). This means that family control on firms may increase the tendency for international expansion. It seems inconsistent that a family firm’s tendency to go international is higher than that of a non-family controlled firm. This phenomenon can be better explained by the explicit consideration of a family firm’s flexibility and heterogeneity (Pukall & Calabrò 2014), on which the socio-emotional wealth (SEW) concept is addressing.

SEW refers to non-economic rewards that family owners may derive from their businesses (Gomez-Mejia et al., 2007). Deephouse and Jaskiewicz (2013) argued that, at the company level, SEW is an umbrella concept that summarize a family’s affective value gained from a firm. The goals included in SEW could be succession (Gómez-Mejía et al., 2007) in long period; altruism to family members (Schulze et al., 2003); social status in the community (Dyer and Whetten, 2006); execution of power, achieving sense of belonging and maintaining family values.

SEW is becoming more popular to describe the influence of family involvement on internationalization (Berrone et al, 2012; Menéndez Requejo, 2005; Segaro, 2010; Kontinen & Ojala, 2011; Scberroniascia et al., 2012b; Roida & Sunarjanto, 2012). As Priede Bergamini (2014) suggested, the main characteristic of family firms is the concurrence of three groups of people: family members, business owners and business managers, everyone with their own system of values and objectives respectively. Therefore, it also brings forward a complicated relationship and further leads to differences in behaviors and responses inside the family. Some researchers claim that the process of establishing strategic goals and then planning to reach them are not the
same for family controlled businesses as for the non-family counterparts because of the particular interests of the owning family (Martin & Cabrera 2007). The owning family principal shareholders regard socio-emotional wealth (SEW) as one of their primary reference points, if not the only one (Gómez-Mejía et al., 2011; Gómez-Mejía et al., 2007).

Using a socio-emotional reference point to view risk attitude, family firms can be both more prone to risk because of majority business ownership, and also risk averse, depending on different situations (Zahra, 2003; Gomez-Mejia et al., 2007). ‘Family firms are typically motivated by, and committed to, the preservation of their SEW, referring to nonfinancial aspects or ‘affective endowments’ of family owners (Berrone et al., 2012, p. 259). In other words, family principal owners are generally loss averse instead of risk averse. They will spare no efforts to avoid loss of SEW depending on the situation. This sheds light on the reason why the phenomenon that family ownership can facilitate firms to get involved in international practice exists.

For example, when a family firm shows a bad performance, or becomes nearly bankrupt, the owning family is more willing to take the risk of international expansion. Oppositely, when family firms is satisfied with the current performance and SEW endowment of the firm, the owning family is more risk averse. Because the owning family fear the loss of SEW more than it embraces potential earnings from internationalization (Pukall & Calabrò 2014).

2.3.2 Hypotheses based on SEW perspective

Whether firms choose internationalization or not is influenced by perceptions of opportunities and risks associated with international expansion (Liu, Lin, & Cheng, 2011). And family firms’ attitudes toward risk propensity and strategic decision are usually affected or even determined by SEW endowment, since it is a pivotal reference point for the owning family. Risk propensity of owners may depend on their ownership stake (George, Wiklund & Zahra, 2005). With a higher ownership, owners tend to be more risk averse, because they are not willing to pursue high-risk strategies. Risk means probability of losing benefit and profitability of the firm, as well as losing power over the firm which means the loss of SEW. Since international expansion is riskier than domestic growth, owners are usually reluctant to grow through internationalization in order to
prevent loss of SEW (Liang et al 2014). In this case, high ownership will inhibit family firms to internationalize. Hence, we have the following hypothesis.

**Hypothesis 1** Family involvement in ownership is negatively related to the degree of internationalization.

Except for family involvement in ownership (FIO), the degree of internationalization is also highly related to family involvement in management (FIM), which refers to the extent of family control over daily operations (Liang, Wang, and Cui, 2014). Previous research has investigated how FIM influences the managerial challenges faced by firms in decision making (Chetty et al 2014; Harris, Martinez, & Ward, 1994; Chrisman, Chua, & Sharma, 2005), organizational culture (Thomas & Graves, 2005), and organizational performance (Sciascia & Mazzola, 2008; Castillo & Wakefield, 2006). Only recently have researchers explored specifically the relation between FIM and internationalization strategies (Zahra, 2003).

Although it’s hard to measure or investigate the influence of family control on decision making process and daily operation (Pukall & Calabrò 2014), there still exist an acceptable measurement for FIM. The ratio of family members in top management team (TMT) is generally used to measure family involvement in management (e.g. Liang et al 2014). Top management team (TMT) is a group of high position managers who have the responsibility and authority to conduct and execute corporate strategies comprehensively (Smith et al., 1994).

Liang et al (2014) suggested that an important reason a family tends to involve in management could be the family’s willingness to create and preserve the SEW of the family members. Since outside managers could weaken family authority and dilute family influence in the operation; increase information asymmetry; cause conflicts in business culture and decision-making process and further damage the top management team (Gomez-Mejia, Hoskisson, Makri, Sirmon, & Campbell, in press). Family firms are usually reluctant to be interfered by external entities concerning control over the firm, especially when outside expertise come into the board and have additional advisory roles in top management team (Pukall & Calabrò 2014), although they are lagging behind the respective capabilities of non-family firms in internationalization practice (Graves & Thomas 2008).
As a result, the owning family prefers to hire family members into top management team (TMT), which refers to altruism to family members. The top managers further prefer to hire more family members for management positions rather than recruiting the best candidates because outside managers may reduce the family’s SEW (Liang et al., 2014). Consequently, High qualified managers may dislike firms with high family involvement in management because of the limited potential for personal growth, lack of professionalism, and limited wealth transfer (Sirmon & Hitt, 2003). Altruism, as a mechanism through which family members preserve SEW in their family firm (Gomez-Mejia et al., 2011), will thus inhibit the development of managerial resources and capabilities needed for international expansion (Cerrato & Piva, 2012; Habberhson & Williams, 1999), and lead to deficient strategic decisions. On the contrary, firms with less family involvement tend to have richer managerial resources and social capital (Graves & Thomas, 2004).

There are empirical evidences which have shown that family involvement in management is negatively related to a firm’s internationalization effort, such as tests in Spain (Fernandez & Nieto, 2006); in Italy (Cerrato & Piva, 2012); in U.K. (Westhead & Howorth, 2006). Therefore, we have hypothesis 2(a) as follow.

**Hypothesis 2(a) Family involvement in management is negatively related to the degree of internationalization.**

However, contradictions exist in prior research (Aldrich & Cliff, 2003), such as the evidence generated from U.S. manufacturers (Zahra, 2003) which suggests a positive relationship between family involvement in management and the degree of internationalization.

Research indicates that a higher level of family involvement in management may result in shared strategic goals and greater cohesion in decision making within the management team (Ensley and Pearson 2005). Due to their employee orientation, customer and long-term orientations (e.g. Miller et al. 2007), they may obtain the ability to utilize the social capital of their human resources (Segaro 2010) and of their partners and customers (Segaro 2010).

Actually, altruism can also reduce information asymmetry (Karra, Tracey, & Phillips, 2006); create a kind of organizational culture which encourage firms to pursue international
opportunities (Zahra, 2003) and endure short-term deprivation in order to ensure the long-term survival of the families’ SEW (Carney, 2005). Consequently, there are fewer conflicts compared to non-family-involved managerial teams. If managerial teams reach consensus in going internationalization, they will spare no efforts to speed up the process.

On the one hand, lack of managerial capability in the top management team caused by altruism, could be compensated by skill, experience and knowledge by the diversity of the top management team (Boeker & Wiltbank, 2005; Graves & Thomas, 2006; Stamp, 1981) On the other hand, though characteristics of a diversified top management team can be positive to internationalization practice, a high proportion of family involvement in top management team brings huge value (Tihanyi et al., 2000). Accumulated entrepreneurial expertise, domestic industry experience and their network relationships potentially compensate the weakness and help in assessing international market opportunities (Segaro, 2010). Tuppura, Saarenketo, Puumalainen, Jantunen, and Kylaheiko (2008) further argued that knowledge and experience which are non-tradable enable firms to achieve solid market position in domestic markets, acquire knowledge regarding business opportunities abroad and enable economic strength preservation in both markets (Shane, 2000). All the valuable features above will facilitate and accelerate international expansion and preserve SEW at the same time. Hence, we formulated another hypothesis.

**Hypothesis 2(b)** Family involvement in management is positively related to the degree of internationalization.
3. Methodology

The purpose of this thesis is to investigate the relationship between family involvement and the degree of internationalization within the context of listed firms from the Chinese Mainland. We try to extract general trends from real data, which indicate the philosophy of positivism (Saunders, Lewis and Thornhill, 2012). In detail, the hypotheses were derived from theory review and they would be tested for Chinese family firms. This process further refers to a typical deductive approach (Ketokivi and Mantere 2010). Within positivism philosophy and deductive approach, quantitative method is preferable to search for regularities and causal relationships (Gill and Johnson 2010). We used compiled data as one kind of secondary data, since it is most frequently used in business and management research (Saunders et al, 2012). In this thesis, it refers to annual reports including corporate statement, financial report, firm age and firm size.

All the listed firms in China are required to publish their annual reports by China Securities Regulatory Commission (CSRC, www.csrc.gov.cn). CSRC further authorizes “CNINFO” (www.cninfo.com.cn), as an information centre, to issue annual reports of all the listed firms in Chinese Mainland. That is the channel we applied to download annual reports of our target firms from. In addition, once fake information is found in the reports or on the website, all the relative entities will be punished by law. Therefore, the information and reports acquired on CNINFO are highly valid and reliable. Besides, the data we need to test the hypotheses in statistical method are easily obtained in this approach instead of doing survey or interview. Moreover, it comes to be strength for this thesis regarding to the ethical issues. We will not have these problems as if we would use a primary data collection method, since the official annual reports are publicly released by themselves.

3.1 Sample Selection

The target group of our study is Chinese listed family firm. According to the definition in this thesis, the sample should be eligible for the standard below:

1) The firm is governed (owned and/or managed) by family members.

2) At least two representatives of the family or kin are formally involved in the governance (ownership and/or management) of the firm.
While doing a research aiming to find a common regularity, the issue at stake is generalizability (Pallant 2010), which means a sample must consist of enough cases in order to add value in universality. Tabachnick and Fidell (2007) gave a criterion regarding to multiple regression that the sample size should be related to the number of independent variables. The formula for calculating required sample size is \(N > 50 + 8m\) (where \(m = \) number of independent variables; \(N = \) the required sample size). In this case, our sample size should be more than 82 cases \((N > 50 + 8*4 = 82)\) while taking the control variables into account.

At first, we found a large ratio of family firms is non-listed firms who are usually not willing to publish their information while it is not necessary for them to do so. Consequently we chose listed family firms in Chinese Mainland. In this case, detailed reports are available in official channel. Information collected from annual reports will be valid and reliable, and with least measurement bias. Furthermore, firms are qualified to be publicly listed only when they reach a certain size and strength, which restrict the quality of the sample (e.g. employees, scale of business, and a clear industry).

Next, it is impossible to check through all the registered companies in China in order to find family firms, or get a specific list including all the listed family firms from any official organization. However, Forbes-China (www.forbeschina.com) would release “Annual Ranking of The Top 100 Publicly Listed Family Firms in ‘A Share’” (a concept indicates stock market in Chinese Mainland) by evaluating their performance in stock market. As we all know that Forbes Magazine is one of the leading public Medias all over the world and it is famous for the ranking lists so far. Considering of their objectives and reputation, scholars would use the information as reliable resource from Forbes (e.g. del Castfflo-Mussot, Sprague & Dlalama, 2013; Gonçalves et al., 2013). Moreover, the criteria to distinguish if a company is family business or not in Forbes’ Top 100 Ranking accurately match our definition in the theory part. Thus, we adopted all the family firms ever appeared in the Top 100 Ranking during 2010 ~ 2014 (Except that Forbes released only top 50 ranking instead of top 100 ranking in 2011).

As the Top 100 Rankings are examined by firms’ performance in the stock market, it covers all kinds of family involvement and internationalization status, which meets the request of a wide coverage of independent variables. Thus, high performed family firms chosen as our sample are appropriate for our research.
According to Forbes China, there are 774 listed family firms in the end of 2014 in China. However, we can find the annual reports of family firms only when they were listed in the stock market. While part of the firms went public after 2010, this selection process results in 133 companies. By viewing 532 annual reports, we find that not all the 133 companies are involved in internationalization during 2009 ~ 2013. The sample is finally reduced to 81 companies with only the family firms which have international business during the observed period.

In addition, we planned to download continual 4 years annual reports of each company in the period during 2010~2013 since internationalization is a dynamic process (reports for 2014 are going to be released around the end of April 2015, thus we are not able to use them). A formal annual report generally includes information in both current year and the prior year to make comparison. Therefore, we are able to get 5 years data in 4 years annual reports. Counting the total 81 cases multiplied by 5 years data, it is acceptable though there is one case less than the required sample size and it is possible to carry out regression analysis through this sample with coverage, validity, reliability and measurement bias (Saunders et al., 2012).

3.2 Variables

Regarding our theoretical model, family involvement in ownership (FIO) and family involvement in management (FIM) are two independent variables. These will be tested respectively with the degree of internationalization as a dependent variable. We will clarify the measurement of each variable in this part.

3.2.1 Independent Variables

Family involvement in ownership (FIO) measures the degree to which the family owns the stock of the company. It is normally represented by the ratio of shares held by family members (e.g., Chrisman et al., 2012; Zellweger et al., 2012). However, family ownership in China is complicated, because Chinese always live in big family and it is impossible to recognize family members among all the employees in the top management team by just checking their last names. Moreover, some family members such as brothers or sisters in law may own tiny shares of the firm. They will not be listed in the main shareholders table shown in the annual reports. Thus, we are not able to detect the existence of these family members at all. However, the family member(s) who owns the largest share of the firm must be introduced in the annual reports,
which is named as “actual controller”. Compare to the shares these ‘big boss’ hold in the owning family, the tiny share held by the other family members can be neglected. We therefore treated the share of the “actual controller” as the indicator of family involvement in ownership. There is a figure called “actual family controller(s)’s property right of the company” in annual report in which we could calculate the ownership of the “actual controller”. Moreover, the relation described in the figure can accurately represent the idea of family involvement in ownership (FIO) and it fits all the definitions we adopted for FIO in this thesis. Therefore, we take the figure as resource to present FIO and summarize the explanation of actual controller below.

1) The actual controller(s) is/are the shareholder(s) in the board whose property (ownership) in total is/are absolutely far more than any other one shareholder.

2) The actual controller(s) must be a member(s) of the owning family.

\[
FIO = \text{the actual family controller(s)’s property right (ownership) of the firm}
\]

E.g. take the following Fig 3.1 as an example (which is similar to the pictures in the annual reports). If the actual family controllers are family member A and family B, and they have direct or/and indirect ownership towards the family firm, then FIO equals to the direct ownership that family member A has plus the indirect ownership that family member A and B have.

\[
FIO = a \% + (b \% \times d \%) + (c \% \times d \%)
\]

![Diagram of FIO calculation](image)
Family involvement in management (FIM) captures family member’s influence on management and operation (Tsao and Lien, 2011). FIM was measured by the number of family members present in senior managerial positions (Chrisman et al., 2012), including positions as Chief Executive Officer (CEO), Chairman/President, and other executive positions (Dou, Zhang, Su, 2014), which refers to the top management team (TMT). In the annual report, there is a list consisting of the board of directors, board of supervisors and the top manager(s) as a group which accurately fits for the definition of top management team (TMT) in theory. It is defined as the top management group in Chinese regulation according to CSRC (www.csrc.gov.cn; it is obligatory to include these managerial positions in the group and list them in the annual reports in law). Thus, we decided to use the percentage of family members in the top management team (TMT).

\[
FIM = \frac{\text{number of family member in the TMT}}{\text{total number of persons in TMT}}
\]

Since we have data for 5 years, we will use the average FIM and the average FIM in the same period to run the calculation.

3.2.2 Dependent Variables

Degree of Internationalization (DOI) can be measured by foreign sales to total sales ratio (Collins, 1990; Buhner, 1987; Kuma, 1984). “Foreign sales” in this thesis is defined as sales geographically occurred in foreign markets, namely, overseas business. It includes all kinds of business modes such as foreign investments, exports, foreign trades, foreign sales and etc. through subsidiaries, joint ventures, distributors or any other pathway. Since we have data during 2009 ~2013, we would measure the degree of internationalization (DOI) by calculating the average foreign sales to total sales ratio (FSTS) for each firm during 2009 and 2013 in order to eliminate the abnormal variances.

\[
DOI = \frac{\text{Foreign sales}}{\text{Total sales}}
\]

3.2.3 Control Variables

Firms in different age may have different goals and mechanisms in operation (Sharma, Chrisman, & Chua, 1997), which may further affect the firm’s international project (Benito-Hernández et al., 2014). Age refers to not only resources but also experiences. It has been proved that it takes time to develop business in foreign markets (Smith, Strojer & Dilling-Hansen, 2002) because
expanding to an unfamiliar environment needs a lot of resources and preparations. Older firms should have more time and power to accumulate knowledge, resource and establish their network in the foreign markets. Moreover, older business tends to penetrate more into international market (Smith et al, 2002). The old firms involving in these businesses have better industry phenomenon and valid information of international markets which can guide their internationalization practice a lot. Consequently, firm age may have influence on family business as well as non-family firms since family firms are also differentiated in age.

In addition, corporate size, as another key factor, also has an impact on international expansion. Even if a few companies have the same age, they may still be differentiated in size. Since companies with larger size are considered to have greater ability of resources to internationalize (Benito-Hernández et al., 2014), and they are more likely to take internationalization as a natural step of corporate development (Thomas & Graves, 2005; Zahra, 2003; Liang, Wang, and Cui, 2014). Corporate size should determine their capability and responsibility at the same time in internationalization. While they have enough resources and capacity, they will naturally go international in order to capture more benefits (Thomas & Graves, 2005).

However, some other companies may regard internationalization as strategic operation for good future performance or further development, even if they don’t perform well currently (Greve 2003). They are willing to take adventure for higher marginal benefit. We believe that corporate size also have a certain influence on family business internationalization since it is typically related to extensive international activities (Lin, Wen-Ting, 2012).

Corporate size has been widely used in research in this area for long along with corporate age (e.g. Zahra, 2003; Kim and Gao, 2013; Benito-Hernández et al., 2014). Therefore, we include these two crucial factors as control variables and adopt the most common measurement of them. Corporate age equal to the number of years since a firm was founded (Zarah 2003, e.g. Liang et al. 2014; Kim and Gao, 2013) and corporate size can be measured as the total number of employees in the firm (Kim and Gao, 2013; Benito-Hernández et al., 2014). By the way, we also gathered five years data for these control variables and use the five-year average value in the final analysis to eliminate the abnormal variances.
3.3 Statistical Method

We used Microsoft EXCEL and IBM SPSS Statistics™ as tools to analyze the data. Our purpose is to investigate the relationship between family involvement in ownership (FIO) and management (FIM) and the degree of internationalization. We tend to adopt the standard way of linear regression. Regarding this objective and method, we follow the steps below.

1) We explored the data by observing the characteristics of the sample such as the maximum value, the minimum value, and the median.

2) After the basic data observation, a partial correlation test was applied to illustrate the relevance along with the significance of the chosen variables in the hypothesis (Saunders et al., 2012). It is a pre-test to ensure the correlation between independent variables and dependent variable, as well as the multicollinearity between independent variables. If the value of correlation is low, it means the independent variable(s) is (are) improper and worthless to be included in the model (Pallant 2010). Specifically, the relation between the independent variables and dependent variables should be above 0.3, while the correlation between two independent variables (including control variables) must be less than 0.7 (Saunders et al., 2012).

3) Moreover, the relation between the two independent variables should be assessed, which refers to the multicollinearity. The two indicators, tolerance and variance inflation factor (VIF) would be taken to measure the variability of these independent variables (Pallant 2010). Empirical studies were barely able to distinguish family involvement in ownership (FIO) and family involvement in management (FIM) and suggest a covariance between them (Liang et al 2014). It may be caused by the high interdependence between these two factors. Therefore, we have to carefully measure FIO and FIM in the integrated model and check the covariance. In theory, the tolerance should be more than 0.1 and the VIF-value should be less than 10 (Hair, Anderson, Tatham & Black et al. 1998).

4) We used linear regression analysis based on the theoretical model to test if our sample supports the hypotheses generated from prior theories. Specifically, a hierarchical analysis was adopted in our model since we have two control variables: corporate size and age.
5) Multiple regressions are very sensitive to outliers (very high or very low scores; Pallant 2010). In order to conduct multiple regressions it is important to check for the presence of outliers, or cases that are not well explained by the model (Pallant 2010). It is necessary to check the residual. Though the model may be qualified, it can further explain the fit of our model. As normally used, normal probability plot (P-P) of regression standardized residual and the scatter plot were shown along with the analysis at the end of results section.

### 3.4 Reliability and Validity

There are two crucial characteristics that can influence the quality of the data: reliability and validity (Pallant 2010). Reliability of a data, on the one hand, indicates how free it is from random error (also named as ‘temporal stability’), while on the other hand, it also refers to internal consistency. It means the degree to which items that make up the sample are all measuring the same underlying attribute (Pallant 2010). Our sample consists of 81 companies averaged by 5 years’ data focusing on the same indexes of family involvement and internationalization degree which should have covered reliability in temporal stability. In addition, we would run the correlation test to see the internal consistency among variables which is also reliability analysis (Pallant 2010, e.g. Polat and Mutlu, 2013).

Validity refers to the degree to which the model measures what it is supposed to measure (Pallant 2010). Although, there is no one clear-cut indicator of a data’s validity, the adopted measurements in this thesis are all popular used in this field as we discussed in variable part. For instance, family involvement in ownership is measured as the actual controller’s share of the family firm. This is the official measurement in annual report that required by the CSRC (www.csregov.cn). Meanwhile, the share of actual controller could represent the degree to which the family owns the stock of the company, which is the definition of FIO in the thesis. Similar to FIO, the measure of family involvement in management is also adopted in prior literatures (e.g. Dou et al. 2014 ). In terms of the control variables and dependent variable, they are all measured in the most common ways. Thus, all the measurements of variables in this thesis should have qualified for validity.
4. Analysis and Results

In this part, we stated a comprehensive data exploring process. An overall view of the sample and original data illustrated the basic information and general distribution. The descriptive statistics and inferential statistics by regression analysis were presented in sequence later.

According to Forbes China, there were 774 listed family firms in China calculated in the end of 2014, and there were 133 family firms had been listed in the Top 100 Rankings during 2010 ~ 2013 which equals a percentage of 17.18%. However, only 81 family firms had ever involved in internationalization which accounts for 61% of the 133 firms we found in the Top 100 Rankings. It implies a rather low degree of internationalization for all the Chinese listed family firms.

After filtering by criteria of internationalization, we finally found 81 suitable firms for this research accounting for 10.89% of all the 774 family firms had been listed in Chinese Mainland in 2014. The sample includes data of 81 cases averaged by five years during 2009 – 2013. All the cases were discovered from the Top 100 Ranking by evaluating the total operating revenue. Thereby, we inferred that the sample includes all the internationalization practice of the top 17% family firms listed in Chinese stock market during 2009 – 2013.

Since we collected data from official annual reports, there is no missing value for each variable in the whole time frame and all the data are highly valid. Moreover, the sample covering 24 industries is wide-ranging, and it mainly involves in manufacturing industries. Table 4.1 below shows the covered industries and the firm frequency in each industry.
Table 4.1 Industry distribution of the sample

<table>
<thead>
<tr>
<th>No.</th>
<th>Industry</th>
<th>Number of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agricultural and sideline products processing industry</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Architectural decoration and other construction</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Automotive industry</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Business services</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Chemical fiber manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Chemical raw materials and chemical products manufacturing</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Civil engineering construction</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Computer, communications and other electronic equipment manufacturing</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>Electrical machinery and equipment manufacturing</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>Ferrous metal smelting and rolling processing industry</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>General equipment manufacturing</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>Instrument manufacturing</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Metal products industry</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Non metallic mineral products industry</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Non-ferrous metal smelting and rolling processing industry</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Paper and paper products industry</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>Pharmaceutical manufacturing</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Radio, television, film, record and video production industry</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Railway, ships, aerospace and other transportation equipment manufacturing</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Realty industry</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>Rubber and plastic products industry</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>Special equipment manufacturing</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>Textile and clothing, apparel industry</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>Textile industry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>81</strong></td>
</tr>
</tbody>
</table>
4.1 Descriptive Statistics

Taking an overall view of the original data, the variance range of each variable is shown in table 4.2 below. The data set is comprised of 81 cases covering the period from 2009 to 2013 for listed family firms in Chinese Mainland. Data for the univariate statistics is based on time-series averages for each firm and then averaging across firms (e.g. mean of FIO is calculated by each firm’s average value across the observed 5 years).

Table 4.2 Original data demonstration

<table>
<thead>
<tr>
<th></th>
<th>Age (until 2013)</th>
<th>Size (Employees)</th>
<th>FIO</th>
<th>FIM</th>
<th>DOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>1965</td>
<td>325</td>
<td>4.42%</td>
<td>0%</td>
<td>.0192</td>
</tr>
<tr>
<td>Highest</td>
<td>2006</td>
<td>150,000</td>
<td>71.99%</td>
<td>25.25%</td>
<td>.7841</td>
</tr>
<tr>
<td>Median</td>
<td>1995</td>
<td>10,164</td>
<td>30.63%</td>
<td>10.39%</td>
<td>.2581</td>
</tr>
<tr>
<td>Mean</td>
<td>19.74</td>
<td>10163.96</td>
<td>.3240</td>
<td>.1018</td>
<td>.2989</td>
</tr>
<tr>
<td>S.D.</td>
<td>8.75</td>
<td>22277.71</td>
<td>.1537</td>
<td>.0571</td>
<td>.1891</td>
</tr>
</tbody>
</table>

It was surprising that the oldest firm in our sample was founded in 1965 and the youngest one had been founded for only 7 years until the end of 2013. The table shows that the top 17% listed family firms are all presented by young companies though there are lots of famous time-honored brands in China which have lasted for more than decades or even hundreds of years. It seems that young family firms developed better than old traditional family firms in recent years in China. Another possibility is that the traditional old brands that performed well are generally not willing to go to public..

Another interesting phenomenon is that the firm size (represented by number of employees) varies from 325 to 150,000. A 500 times multiple infers to a large gap between small size and large size firms while all of them are listed in the Top 100 Ranking. It may because of the difference of industries, since different industries require for different levels of labor cost-efficiency. Or it may relate to degree of internationalization, because small company may have a high degree of internationalization whereas big company may be conservative in international expansion. On the other hand, international business generally involves in multiple labor markets.
(Forsgren 2008). For example, a big company could have subsidiaries in several countries which may call for more local employees than a big family focuses on only one foreign market.

Regarding to family involvement in ownership (FIO) and family involvement in management (FIM), they are the key indicators of family control over the firm (Tsao and Lien, 2011). However, compared to the traditional family-control-mode, Chinese family firms are gradually accepting professional managers in the top management team today. The highest family involvement in management (FIM; measured by the ratio of family members in the top management team) accounts for only 25.25% and half of the cases’ FIM are lower than 10.39% in the sample. Family firms in China may tend to control more in ownership rather than in management, regarding to the highest ownership up to 71.99% in share. It has to be mentioned that listed company has to issue at least 25% share of stock to public in China (CSRC, www.csrc.gov.cn). Thus, 71.99% is an extremely high level of involvement in ownership. Oppositely, there are also a few family firms that prefer involving in management more than involving in ownership as the lowest FIO bottoms to only 4.42% in share.

Regarding to the degree of internationalization (DOI), It is hard to believe that the lowest one in the top 17.18% listed family firms would reach at only 1.92% except for the ones focus only on domestic market. Moreover, the foreign sales to total sales ratios (FSTS; represents degree of internationalization) of half of the 81 cases in the sample are lower than 25.81%.

After observing the original data statically, we forward look at the change of average value of the core variables in dynamic through the whole time frame. During these five years, the fluctuations of family involvement in ownership (FIO) and family involvement in management (FIM) are inconspicuous in listed family firms in Chinese stock market. The average FIO was around 35% and the average FIM was approximately 10% through the whole period. Degree of internationalization (DOI) went through a tiny variance and raised a bit in general view of total five years. In specific, it rose in small amplitude during 2010 to 2012 by 13.75% in average and fell a bit in 2013. We suggest that family involvement generally keeps varying in a stable level in short-medium period and pursues a long-run involvement in the firm.

By viewing the descriptive statistics only, we cannot tell if there is obvious covariation in FIO-DOI and FIM-DOI. Thus, a correlation analysis was further applied to identify and explain the
association between these variables later by testing them case by case. The correlation matrix was examined by Pearson. The results are shown in Table 4.3 below presenting the interdependence between each two variables.

\textbf{a} Table 4.3 Correlation Statistics

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{Age}_1</td>
<td>.103</td>
<td>.013</td>
<td>-.069</td>
<td>.129</td>
<td>1.017</td>
</tr>
<tr>
<td>\textit{Size}_2</td>
<td>1</td>
<td>-.089</td>
<td>-.040*</td>
<td>.118</td>
<td>1.019</td>
</tr>
<tr>
<td>\textit{FIO}_3</td>
<td>1</td>
<td>.238*</td>
<td>.555**</td>
<td>1.069</td>
<td></td>
</tr>
<tr>
<td>\textit{FIM}_4</td>
<td>1</td>
<td>.079</td>
<td>1.066</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{DOI}_5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 81 cases averaged by five years. b. Cells contain zero-order (Pearson) correlations. c. Considering with control variable: age and size. (*) Significant at 10% level (p < 0.1), two-tailed test. * Significant at 1% level (p < 0.05), two-tailed test. ** Significant at 0.1% level (p < 0.01), two-tailed test.

Taking Pearson correlation as a pre-test of regression analysis, the results show that the control variable age is not significantly related to either family involvement in ownership (FIO; r = .013) and family involvement in management (FIM; r = -.069). Corporate size has a small and negative impact on family involvement in management (FIM; r = -.040*).

After excluding the influence of these two control variables, family involvement in ownership (FIO) presence appears to bear a positive association with the degree of internationalization (DOI; r = 0.555**, p < 0.01). Family involvement in management (FIM) is not significantly related with degree of internationalization (DOI; with r = 0.079), which is actually consistent with our previous analysis. Though we notice that FIO-FIM is lightly correlated (with r = 0.238, p <0.01), it is far less to reach the standard of collinearity. According to Pallant (2010), collinearity refers to the relationship among independent variables. It exists only when two variables are highly correlated (r=.7 or above) with each other (Saunders et al. 2012). Furthermore, the VIF values of the variables were all around 1 and the tolerance value of all the variables were above 0.9, which means there is no collinearity problem. In this case, the correlation between family involvement in ownership (FIO) and family involvement in management (FIM) can be neglected. And it further infers that family ownership and presence in management should be considered separately, since they actually affect each other in an extremely low level.
4.2 Regression Analysis

According to the hypothesis and result of correlation test, we came to examine the relation by regression models. There was no accurate function of FIO-DOI and FIM-DOI generated in H1 and H2. We implemented a process of fitting linear equation by regression analysis. The fundamental equation is demonstrated in table 4.4 below.

Table 4.4 Demonstration of three basic models

<table>
<thead>
<tr>
<th>Model</th>
<th>Expression</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>$Y = a + b_1X_1 + b_2X_2 + c_1X_3 + c_2X_4$</td>
<td>A straight line</td>
</tr>
</tbody>
</table>

$Y$: dependent variable.  $X_{1,2}$: independent variable.  $X_{3,4}$: control variable

We ran ‘linear regression’ in SPSS to ensure the function with controlling two control variables - age and size. To be clear, we used two tailed test and set the normal standard of F (entry with lower than 0.05 and removal with higher than 0.1). R-square was the main criteria we adapted to measure the outcome (degree of correlation). In theory, if the R-square value is higher than 0.2, these two variables can be regarded as correlated variables. Following this process and criteria, the results are exhibited in table 4.5.

Table 4.5 Result of FIO-DOI regression analysis

<table>
<thead>
<tr>
<th></th>
<th>Linear regression Model 1</th>
<th>Linear regression Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.003</td>
<td>.002</td>
</tr>
<tr>
<td>Size</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>$^c$ FIO</td>
<td>.692**</td>
<td></td>
</tr>
<tr>
<td>FIM</td>
<td>-.185</td>
<td></td>
</tr>
<tr>
<td>R-square</td>
<td>.028</td>
<td>.330**</td>
</tr>
<tr>
<td>Ad $R^2$</td>
<td>.003</td>
<td>.295**</td>
</tr>
</tbody>
</table>

a. 81 cases averaged by five years, b. Cells contain zero-order (Pearson) correlations. c. Considering with control variable: age and size. (*) Significant at 10% level ($p < 0.1$), two-tailed test. * Significant at 1% level ($p < 0.05$), two-tailed test. ** Significant at 0.1% level ($p < 0.01$), two-tailed test.

The result indicates a significant performance of the equation (adjust $R^2 = 0.295$. In detail, the significance of the coefficient for FIO is high ($b_1 = 0.692^{**}$) whereas FIM is not related with DOI.
at all \((b_2 = -0.182)\). In terms of the control variables, corporate size and age are, in line with the result of correlation test, has no impact on the degree of internationalization (DOI). Corporate size and age are not that influential in the theoretical model as we thought within the context of Chinese listed family firms. Regarding to the especially low value of efficient of control variables \((c_1 = 0.002, c_2 = 0)\), we can ignore the influence of these two control variables then considering to the relation of FIO-DOI and FIM-DOI.

We further show the picture of the performance of the linear regression model (see appendix I). The observed points (represent the cases in our sample) follow an ascending trend which can be illustrated by the upwards trending line (represent the linear regression model). As shown in appendix II, the distribution map confirms the result in number that the observed points are too chaotic to be represented by any model. It is probably due to a small sample including 81 cases. Though the sample size is enough to conduct the regression analysis, it is still insufficient to generalize a real phenomenon.

### 4.3 Residual Check

To further ensure the feasibility of the linear regression model, we check the histogram graph and P-P graph of residual (see appendix III and IV). According to Pallant (2010), the residuals are the differences between the obtained and the predicted dependent variable scores and they may obey the rule below:

1) The residuals should be normally distributed about the predicted dependent variable scores, which is the rule of normality.

2) The residuals should have a straight-line relationship with predicted dependent variables, which is the rule of linearity.

As we can see in the histogram graph and P-P graph of residual, our regression model fits both the rules above. The histogram means the regression standardized residual conform to a normal distribution, while the cases in P-P graph are closely circumambient around the expected straight line. In general, the more the points close to the line, the less major deviations from normality.
While looking at the scatter plot, the points that vary over the scale of -3.3 to 3.3 are defined as outliers who should be considered to remove (Tabachnick and Fidell 2007). In our sample, it seems good in normality performance that all the cases vary in around -2 to 2 as shown in Appendix V below. It represents a good quality of sample in this case.

In conclusion, we believe the linear regression model is valid (correctly measures the variables) and reliable (measures the same value on each random cases) considering all the criteria checked in this part.

**4.4 Results for Hypotheses**

While assumed in H1 that family involvement in ownership (FIO) is negatively related to degree of internationalization (DOI), it is obviously contrasted to the result in data analysis. Thereby, H1 is rejected. According to the results, we finally draw the conclusion as ‘family involvement in ownership is positively associated with the degree of internationalization’.

The two opposite hypotheses (hypothesis 2(a) and hypothesis 2(b)) was founded to explain the relation between family involvement in ownership (FIO) and degree of internationalization (DOI). The result of linear regression shows that family involvement in management (FIM) basically has no significant relation with the degree of internationalization (DOI). It is in line with the result in correlation test. Consequently, the original hypothesis 2(a) and 2(b) are both rejected and it is finally concluded as ‘no valid relation between family involvement in management and the degree of internationalization’. The result is actually consistent with the previous findings in theory that it is inconclusive.
5. Discussion

Even though all firms in our sample went public a few years ago, all of them are still under family control. This makes them good candidates for our study as our main purpose is to find out the relationship between family involvement and degree of internationalization. However, it didn’t occur to us that analyzing our sample rejects all our hypotheses. Therefore, the theory which we have used doesn’t fit for the Chinese public listed family firms with high performance. In the following part, we will have a discussion about our results and try to find out the reasons behind them. Then, we will illustrate the implications of our research.

5.1 In-depth analysis

5.1.1 Family involvement in ownership and its’ effect on the degree of internationalization

We suggest that family involvement in ownership may affect the degree of internationalization in two ways. The first is about SEW preservation. When family owners have a high ownership, they are not willing to lose their SEW through internationalization. Another aspect is about risk propensity. Since internationalization is a risky strategy, family owners with high ownership don’t want to lose economic benefits. Therefore, through these two mechanisms, we have a proposition that family ownership will have a negative effect on the degree of internationalization.

Our result shows that family involvement in ownership is positively related to degree of internationalization, which is opposite to our hypothesis. The reason behind this may be resulted from our based theory. SEW is our basic perspective and it is used to explain the whole story of firm’s strategies. Nevertheless, it’s not proper for the specific group of well-performed listed family firms in China anymore. Internationalization strategies of firms are decided by many factors among which SEW may be a small determinant especially for highly financially performing listed family firms. Therefore, family firm owners are risk-prone when it comes to internationalization for well-performing firms.

Another important reason is that our sample is that of all public listed firms. Though high family involvement in ownership doesn’t represent high degree of internationalization, family firms will still involve in international expansion depending on the profitability of the investment.
The last reason may be because of the market situation. Since China is going through a rapid economic expansion like other emerging markets in developing countries, Chinese family firms are also willing to reach a high degree of internationalization (PWC, 2014 autumn). Therefore, reasons mentioned above can lead to the positive relationship between FIO and DOI.

However, there are many different opinions towards the relationship between FIO and internationalization in history. Our result supported Bruton et al (2003) who suggested that family firms often have longer time horizons to enhance business growth than non-family firms. Thus, under such conditions, managers will be more likely to pursue proactive activities, such as internationalization (Zahra, 2005). Although our result agreed with these researchers, there are some other researchers who didn’t have the same conclusion as our results. Segaro (2010) suggested that there is a curvilinear relationship between family ownership and internationalization. Her proposition was based on distinctive familiness and resource-based view. When FIO is in the medium level, DOI reaches the highest level. On the contrary, Liang et al (2014) suggested that the percentage of family ownership will have a U-shaped relationship with internationalization. And his propositions were based on risk averseness and SEW preservation.

As we can see from here, different perspectives may lead to different propositions. Nevertheless, our result shows that there is a positive relationship between FIO and DOI, which is totally different from previous propositions. The reason for this may be that we have different sample and different perspective. Even though all of them are family firms, they may come from different countries and their types, private or public listed, are diverse.

5.1.2 Family involvement in management and its’ effect on the degree of internationalization

We suggest that family involvement in management can either positively or negatively affect the degree of internationalization. The reason for a negative relationship is that firms with less family involvement tend to have richer managerial resources and social capital (Graves & Thomas, 2004). And the reason for a positive relationship is that a high proportion of family involvement in top management team also brings huge value which can facilitate internationalization, though characteristics of a diversified top management team can be positive to internationalization practice (Tihanyi et al., 2000). Associated with the inconclusive results in prior studies, we
cannot really tell which one is right. Our result shows that we cannot confirm that family involvement in management is positively or negatively related to degree of internationalization. The reason why we have both positive and negative hypotheses under the same question is that the empirical findings have evidence in both two sides, and we want to find out which hypothesis is right for the specific sample of our research. However, the result turns out that no one is right. It is difficult to certainly tell if FIM can affect DOI and further determine how it works. There are several reasons behind.

The first reason may be our specific sample of public listed firms. Therefore, everyone in the board has the right to vote for the strategy in the company. Thus, it depends on the long-term strategy of the firm deciding to what extent they will go internationalization, and FIM plays no significant role in decision-making. The second reason may be the same as we mentioned above which is that there are too many factors that may influence the degree of internationalization. FIM is not a key factor that may affect internationalization according to the result from our data.

Nonetheless, Liang et al (2014) suggested that FIM has an inverted-U shape relationship with internationalization and they are based on managerial resources and capabilities effect and altruism effect. Graves & Thomas (2006) even suggested that family involvement in management is negatively related to the internationalization and they are based on risk aversion. The reason for the differentiation may be caused by different based perspectives. Our proposition is based on SEW perspective which is different from previous ones. Since there are so many different perspectives, too many factors may affect internationalization. Therefore, it is difficult to reach a conclusion with one perspective. However, our result suggests that there is no relationship between FIM and DOI, which surprised us because there is rare result concluded as ours before. The reason behind may be that our sample is public listed family firms. Family firm owners have authorized professional managers to run the company. According to our data, average FIM is about 10%, which is not high compared with private family firms. According to the result, family members don’t have a decisive role in internationalization strategy, which leads to our result.

5.2 Managerial Implications

Our first managerial implication is that family firm owners can have more ownership in order to have a higher degree of internationalization. Since our results show that family involvement in
ownership has a positive relationship with degree of internationalization, family owners can have more ownership in order to have a decisive role in decision making regarding internationalization strategy.

Our second managerial implication is that do not over emphasize on protecting the power of family control which refers to SEW endowment especially in involvement in management. Professional managers are important assets to family firms, since family firms need their ability and knowledge to help firms in internationalization. If family firms put too much effort in preserving family control referring to FIM, there will be no big difference for firms in internationalization since FIM can not affect DOI. On the contrary, professional managers will bring more value to the family firm. Therefore, family owners should hire more professional managers instead of family members.
6. Conclusion

To conclude, our thesis focuses on studying the relationship between family involvement in ownership and management and the degree of internationalization of Chinese public listed family firms. The results show that our propositions are rejected. Therefore, we have thought about that it may be caused by our theoretical perspective and our chosen sample.

Our results show that family involvement in ownership has a positive relationship with degree of internationalization which opposes to our hypothesis. And there is no relation between family involvement in management and degree of internationalization.

The topics about family firms deserve to be studied more since they are quite mysterious to us. We are glad that we have contributed a part in this field.

6.1 Contributions

As mentioned in the previous part, investigation of Chinese listed family firms turns to be a gap in family business internationalization study. After literature review, we further found that the most relevant research using the same independent variables as ours is written by Liang et al (2014). He stated their independent variables (family ownership and family involvement in management) as the concepts generated from family business related theory. However, they used private firms in China as the database, which include personal ownership, partner ownership, family ownership, ownership by contractual entities and etc. (defined in Corporate Law in China). They could confuse the readers without defining family ownership clearly in their research. Moreover, they based the assumptions on the arguments in family business related theory as well, even without giving a definition of family business. This method may cause problems and mislead future research and create more problems than it attempts to solve, since it artificially dichotomizes family versus non-family firms when no such clear-cut dichotomy exists, (Astrachan et al., 2002, p. 46).

Despite this problem, Liang et al (2014) measured family involvement in management by dividing them into five categories and recoding by labels, which is not explicit enough compared with an exact ratio we apply. The way of gathering information by reading annual reports of
each firm, is more effective than doing a survey since there are no data quality issues related to reliability, forms of bias and generalizability which are common problems in surveys and interviews (Saunders et al., 2012). Although this thesis draw a minor contribution in the whole picture of family business internationalization, it comes forward as the one that states an exact definition on family business in the specific field of internationalization and uses the appropriate data to analyze.

Empirical studies were barely able to distinguish the two aspects of family control: family involvement in ownership and family involvement in management (Liang et al., 2014). This thesis explicitly separates these two influences on internationalization. However, the result is completely opposite to our hypothesis and the prior theories. It indicates the possible theoretical defect in socio-emotional wealth study. At least, it doesn’t fit for Chinese family business. In terms of the relation on FIM-DOI, it remains inconclusive which is actually in line with the conditions of prior theories, which also begs to answer the question if any of the existing theories is adequate in itself.

6.2 Limitations and Future Research

Business development in international market can take time (Benito-Hernández et al., 2014). Internationalization is a long lasting process since firms gain experience over time, in which their market learning and knowledge of the internationalization process are broadened (Claver et al., 2007). Thereby, studies on internationalization need to be analyzed in a long period. However, only 5 years’ data are adopted in our sample, which may be not enough considering the time frame requirement. Future research can study this topic with more than 5 years data in order to have a better research.

As individual researchers with no funding and supporting, we met a lot of difficulties in the process of data collection. Luckily, we found the only way available for us is to collect data in annual reports, by which the sample is accurate and valid enough towards our research question. However, the top 100 Ranking are used as our original database, which represents only the best performed listed family firms in “A share”. Hence, the outcome in this study mainly represents the condition of well performed corporate with their risk attitudes in internationalization. Here we may get a bias in the investigation by only include well performed firms, even though the sample
has a full coverage on the condition of family involvement and the degree of internationalization. Future research can take family firms with different performance as a sample.

Regarding to the measurement of the degree of internationalization, we used the most common way of FSTS (foreign sales to total sales ratio). It may be incomprehensive as it can be measured in several ways as we discussed in literature. Future research thereby can try to measure DOI in a comprehensive way and see how the result changes.

There are also some flaws with the measurement of independent variables. Although most theories take family involvement in management (FIM) into consideration within the top managerial level (Chrisman et al., 2012), it cannot be ignored that the low level managers and operators which are presented by family members will also affect the overall performance in internationalization. Ideas in a company are built by the interaction and ambition of humans instead of systems or routines (Nonaka & Toyama 2005) in which humans refer to all the employees engaged in operation. However, It is hard to measure the influence of family members among all the employees in the firm. We have no choice but to give up including all the components of family involvement in management. Instead, we take key impact from top management team as the measurement of FIM. Thus, it can be a limitation. Future research can think about other measurements to represent family control. The topic of family business has always been mysterious because of its special characteristics. At the same time, family control seems not so explicit to the public. Therefore, studying family control is not an easy topic to investigate but indeed a very meaningful aspect of a business. We hope that future research can find better measurements representing family control in order to adequately understand the mechanisms of family business.

Finally, we think that family firms have an added complexity which cannot be easily studied based on a single perspective. Future research should consider studying this topic from different perspectives in order to fully capture the essence of family firms.
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English:

A


B


C


D


E


F


G


H

J


K


L


M


N


**T**


**W**


**X**


**Z**


Appendix I

degree of internationalization

ownership
Appendix II

![Diagram of degree of internationalization vs management]
Appendix III

Histogram

Dependent Variable: degree of internationalization

Frequency

Regression Standardized Residual

Mean = -5.48E-16
Std. Dev. = 0.975
N = 81
Appendix IV

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: degree of internationalization

Expected Cum Prob vs. Observed Cum Prob
Appendix V

Scatterplot

Dependent Variable: degree of internationalization

Regression Standardized Residual vs. Regression Standardized Predicted Value