The relationship between family ownership and financial performance in family businesses

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PREFACE

This thesis is proposed in fulfillment of the degree of Master of Applied economic major Innovation and Entrepreneurship at the University of Hasselt. I would like to thank a number of people who have helped me with the creation of my thesis.

First and foremost I would like to offer my sincerest gratitude to my thesis promoter Prof. dr. Wim Voordeckers, who has supported me with his thorough knowledge and his dedication. It was his advice and insight that kept me alert and encouraged me to always go one step further.

Elmas Havva Kahraman, who has always been stand-by for my many questions with serenity and helped with the interpretations of the practical part of my thesis, deserves my utmost appreciation.

Furthermore, many thanks to Deborah Macris and other friends, who have helped me through the difficult times.

Last but not least, I cannot end without thanking God and my family for their joyful presence and their endurance during the accomplishment of my thesis.

EXECUTIVE SUMMARY

Family firms are a vibrant area of growing interest today among many researchers. In many countries, two-third of private businesses are considered to be family firms who make a notable contribution to wealth creation and job generation. In Belgium, 70% of all Belgian companies are family businesses, providing up to 55% of the gross national product. The survival and development of family firms, therefore, can have a profound impact on local economic development as well as social cohesion. There are many differences between family and non-family firms but also between family firms themselves. This explains the complexity of such companies and may affect the financial *performance* of these firms. This brings us to our main central research question: "What is the relationship between family ownership and financial performance in family businesses?". The central research question along with the different topics are discussed in the first chapter.

The second chapter gives an introduction to family businesses and its economic interest. We start with reasons for lack of quantitative research in terms of shortcoming of substantial data and the difficulty in defining and identifying family businesses. There is no widely accepted definition of family firms, which makes comparisons of results problematic. Discussing the different types of definitions, we concentrated mainly on three studies that seemed the most important for this thesis. To achieve a more complete and accurate study, we also included an alternative method of defining family firms which is called the F-PEC scale. This scale investigates the degree of influence of a family on a business and contains of three dimensions of family influence: power, experience and culture. Because the governance in family firms is more complex than those in non-family firms, we also incorporated three models in this thesis. The most famous model is the three-circle model that presents the family firm as three overlapping subsystems: the family, management and ownership.

The third chapter discusses various theories related to family firms. A good vision on these theories is crucial because each theory predicts other performance effects. We start with an overview of the *agency theory* of family firms. The agency problem between manager and owner (Agency Problem type I) and between majority and minority shareholders (Agency Problem type II) are discussed. In theory, Type I arguments that family firms should have less need to control agency problems because of the shared

interest of principals and agents. Field studies on the other hand, conclude that family firms are rather "plagued by conflicts". Because of this dichotomous result, we include a model that resolves discrepancy between theory and evidence from field studies within family firms. Concerning agency problem type II, studies argue that the families who possess the majority of the shares, try to reduce the risk of the company, to protect the welfare of the family. The second theory *Stewardship*, which contrasts directly with the agency theory, has the ideology that individuals are motivated not only by self-interest, but also by service to others, altruism, and generosity. While the agency theory focuses on being motivated solely by economic considerations, stewardship proponents focus on the pivotal higher level needs, such as self-actualization through the fulfillment of personal values and aspirations. The *Resource-Based View (RBV)* on the other hand, provides a theoretical framework which isolates idiosyncratic resources that are complex, intangible and dynamic within a particular firm. The bundle of resources, as a result of family involvement, are identified as the "familiness" of the firm. These unique resources are called human capital, social capital, patient capital and survivability capital along with the governance structure attribute.

The next chapter covers the literature study on the research questions described in chapter 1: the impact of family ownership, management, control and generations on performance. After the discussion of each topic, we draw several hypotheses concerning these subjects. Findings on *ownership* on listed companies, generally indicate a positive effect on performance. On the non-listed companies, only three studies were performed where no significant relationship between ownership and performance was found. Looking at the listed companies concerning *management*, results were mixed: positive, negative and no relationship was found. The non-listed companies, only four studies, show the same result, in addition to a study where a negative quadratic relationship was found. The main result from studies on *control* is that the large shareholder may use its controlling position in the firm to extract private benefits at the expense of the small shareholders, which leads to a negative impact on performance. A distinction between large shareholders led by founder CEO, descendant and outsider CEO was made. The next topic *generations,* is approached through two perspectives. First, we have the performance and family firms passing through generation, where the generational effects are discussed looking at the impact of founders, descendants and outsiders as CEO. Secondly, our thesis includes literature about the investment in the continuity of the business trough generations. Influence of developing new products and technologies,

reputation in the market and building market share on generations are the items discussed in this thesis

Chapter five describes the research method. We start with a description of the definition used for this thesis, which is based on the study of Chua et al. (1999) and continue with a brief explanation concerning the sample data. All variables used in this study derive from a study for the Institute of family businesses in April 2003. Variables that measure the performance are contained from the Bel-first database.

The sixth chapter discusses the results of the empirical research. We start with the descriptive statistics for the quantitative variables, followed by the category variables. Hypotheses are tested using the linear regression, independent samples T test and ANOVA multiple comparisons. The results applied in our regression analysis for *hypothesis 1a* were statistically insignificant for all beta coefficients. Thereby, the hypothesis of a inverted-u-shaped relationship is not supported by our results. In order to test *hypothesis 1b*, family firms with sole-ownership will have a less positive effect on firm performance than family-owned firm, we executed the independent samples T test (Table 4c). In comparison to the sole-ownership firms (0,6471), family–owned firms have a higher average performance (5,9350). Given the negative mean difference, we conclude that this result is in support of *hypothesis*1b. The results of *Hypothesis 2*, family involved management is significant positively related to firm performance expressed in ROA, supports our hypothesis. On the other hand, *hypothesis 3a* is not statistically significant for any performance measurements, therefore this hypothesis is not supported. Testing *hypothesis 3b*, only the dummy variable X_4 had a significant influence on the performance measurement ROE in the correlation table. This means that only family firms with a descendant CEO who do not own more than 50% of the shares have an impact on firm performance measured in ROE. But since there wasn't any significance in the regression analysis and the values for R^2 along with the adj. R^2 were very low, we concluded that *hypothesis 3b* is not supported. *Hypothesis 4a*, describes that the first-generation family firms will have a more positive effect on performance than second or third+ generation family firms. The results show the opposite effect for the second generation family firms. GEN_2 is sign. at 5% level compared with GEN_1. This indicates that the second generation family firms have a larger effect on performance (ROA in this case) than the first generation family firms. So we can conclude that there is an opposite effect than we assumed and therefore *hypothesis 4a* cannot be supported. *Hypothesis 4b,* stating that firms with founder CEO have a higher effect on performance than

descendant led and hired CEO(s), could not be proven statistically significant and therefore is not supported. The last three hypotheses were tested through ANOVA, multiple comparison. *Hypothesis 4c*, examines the effect of future-oriented investments in research and development through generations. The hypothesis was not statistically significant, even one of the five measurements for R&D (R&D_5) showed an opposite effect than we assumed (first generation family firms perform more R&D compared with other generations). The result for *hypothesis 4d*, family firms display more reputation over the continuity of the business, is with a small difference statistically insignificant with a sign. level of 0,152. Therefore *hypothesis 4d* cannot be supported. Also *Hypothesis 4e,* concerning market share, is statistically insignificant for both measurements. Thus, *Hypothesis 4e* is not supported.

TABEL OF CONTENT

CHAPTER 1: PROBLEM ANALYSIS AND METHODOLOGY

This chapter starts with the problem statement which will be summarized in the central research question. This central research question, on its turn, is then divided into four sub-questions. Finally, the methodology of this thesis will be explained and discussed.

1.1   Problem statement

Family firms are a vibrant area of growing interest today among researchers, theorists, investors and many others (Neubauer and Lank, 1998; IFERA, 2003). In many countries, two-third of private businesses are considered to be family firms who make a notable contribution to wealth creation and job generation with reference to narrow and broad family firm definitions (Astrachan and Shanker, 2003). In Belgium, according to the international Family Enterprise Research Academy (IFERA), 70% of all Belgian companies are family businesses, providing up to 55% of the gross national product. The survival and development of family firms, therefore, can have a profound impact on local economic development as well as social cohesion. Examples of family-controlled businesses worldwide are Wal-Mart, New York Times, Wall street Journal, Washington Post, American Greetings, L.L. Bean, Ford Motor, Hallmark, Levi Strauss, SC Johnson, and many more.

There are many differences between family and non-family firms. An important difference, in accordance with Tagiuri and Davis (1996), is the presence of three subsystems in a family firm: *the overlap of family, management and ownership*[1]. Each of these three parts of a family business have different expectations, values and goals. This explains the complexity of such companies and may affect the performance of these firms.

Calbrera et al. (2001) investigated in their study other several differences between family and non-family firms. These differences are based on the owner family's goals, values, and influences, relate to the goals they seek, the way they perform, and the people who

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[1] This is called the ***institutional overlap*** in family businesses: the overlap of family, management and ownership.

participate in the business. Another characteristic that differentiates family firms from non-family firms is the bundle of resources and capabilities that are distinctive to a firm as a result of family involvement namely *familiness*[2]. Family firms possess a synthesis of variables that make them different from other businesses. An important variable is the presence of the family followed by the owner's dream to keep the business in the family.

Studies also indicate that many new firms cease to trade within a few years after business start-up (Storey, 1994). In their first five years of operation, roughly 85% of entrepreneurial and family-owned companies disappear. Among those that survive, only 30% are successfully transferred to the second generation of the founding-family owners. Only 12% survives under current ownership to the third generation (Ward, 1987). Individuals concerned with rising business closure rates are considering methods to encourage business survival (Stokes and Blackburn, 2001). There is an emerging view that private family firm development is an important enterprise sustainability issue (Westhead, 2003). The most prevalent reason why family-owned and family-controlled companies fail, relates to a downfall in succession planning. Three patterns of ineffective succession were identified in one study, namely *conservative*[3], *rebellious*[4] and *wavering*[5] (Westhead, 2003).

Johannisson and Huse (2000) suggest that family firm sustainability calls for continued entrepreneurship, continued family involvement and professional management. They assert that a viable enterprise must host all three ideologies, and deal with the tensions

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2   **Familiness** is defined as the unique bundle of resources and capabilities that a particular organization possesses because of the family firm system's interaction among the family, its individual members, and the business (Calbrera-Suarez, 2001)

3   **Conservative**: although the parent has exited the business, the parental shadow remains, and the firm and its strategies are locked in the past.

4   **Rebellious**: in what is often an overreaction to the previous generation's control of the firm, the next generation launches a clean-slate approach to the organization. As a result, traditions, legacies, and even the business model or its "secret to success" are destroyed or discarded.

5   **Wavering**: the next generation is paralyzed by indecisiveness, unable to adapt the business to current competitive conditions; it also fails to make its mark and assume leadership effectively.

between *entrepreneurialism*[6], *paternalism*[7] and *managerialism*[8]. Other theorists suggest that issues relating to the family, ownership and management need to be considered (Lansberg, 1988; Hoy and Verser, 1994).

Extensive studies have researched the relationship between family and non-family firms and their performance. The domain family ownership and firm performance in detail, is a topic that has been intensively studied. For many of these studies it is difficult to find consensus. The main reason for this inconsistency can be traced back to the definition of family businesses. Numerous studies have compared the profiles of family and non-family firms but this research stream has reached an impasse. There is growing consensus that family firms cannot be simplistically viewed as a homogeneous entity (Sharma, 2002; Chrisman, 2005).

The aim of this project is to find the relationship between family ownership and financial performance in family businesses. Taking this relationship as a framework, various variables will be expounded in search for the reason why these firms outperform. Subsequently, these problems will be structured according to different topics.

1.2   Project scope and goals

This thesis main objective is to understand the nature of the relationship between family ownership and firm performance. I will try to explain why specific correlations (or no correlation) are found.

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[6]   **Entrepreneurialism:** The spirit or state of acting in an entrepreneurial manner. An entrepreneur is a person who has possession of an enterprise, or venture, and assumes significant accountability for the inherent risks and the outcome. It is an ambitious leader who combines land, labor, and capital to often create and market new goods or services.

[7]   **Paternalism:** refers usually to an attitude or a policy reminiscent of the hierarchic pattern of a family based on patriarchy, that is, there is a figurehead (the father, *Pater* in Latin) that makes decisions on behalf of others (the "wife" and "children") for their own good, even if this is contrary to their wishes.

[8]   **Managerialism:** is the belief that organizations have more similarities than differences, and thus the performance of all organizations can be optimized by the application of generic management skills and theory.

1.3   The central research question

What is the relationship between family ownership and financial performance in family businesses?

The ultimate goal of this study is to find out what kind of relationship there is between family ownership and financial performance. This relationship will be explored in the category of family businesses. If there is a connection between these variables, are they beneficial or disadvantageous for family firms?

1.4   Topics

Besides the main question, there will be a search for finding a relationship between *family management* and firm performance. Also the link between *family control* and firm performance will be taking into account. Beside these two subquestions, I will also look into family firms *generation*. These different subquestions will be formulated to create a logical flow within this research. They will serve as guidelines for answering the central research question.

Research questions:

      a. How does family ownership affects firm performance?
      b. Is there a relationship between family management and firm performance?
      c. Does family control create or destroy value to firm performance?
      d. What about family firm generations and firm performance?

1.5   Methodology

The methodology section can be divided in two clearly distinctive parts: literature study and data analysis.

a) Literature study

The methodology of this study is based on an extensive literature study. This research strategy was pursued to find accurate answers to the central research questions and the different topics. First a preliminary investigation was accomplished, followed by a comprehensive literature research.

To acquire a theoretical overview in this subject, a lot of different paths had to be explored. To effectuate my preliminary study, relevant keywords were declared. With the help of my promoter, a list of relevant authors and articles was created. By investigating these significant writers and scientific articles, I obtained a clear view about the direction of this thesis. Later, the primary literature study was completed by secondary sources. The search strategy includes various books, journals, lectures, scientific publications and different academic libraries.

Next, tertiary sources like electronic search robots as Anet, Bronco and EBSCOhost, catalogues of provincial and academic libraries were explored. Mediargus is the source that was used to find relative newspaper-articles. Furthermore, to have a complete overview the popular sources were taken into account by way of Google, Google Scholar and Yahoo.

b) Data analyses

The second section presents the practical analysis. This thesis is a theory-oriented empirical research. Various hypothesis have been defined, which is the fundamental idea for the practical research. For the composition of data, public databases have been used. A dataset has been generated, which meets the needs and demands of this research. Next, SPSS software has been applied for processing the data and perform tests.

CHAPTER 2: INTRODUCTION TO FAMILY BUSINESSES

This chapter will define the term "family business" and give information about the economic importance of family. There is still no widely accepted definition of family firms (Astrachan et al., 2002). Definitional confusion is exemplified by the varying degrees of specificity across studies, making comparisons of results problematic. When different definitions are applied, the percentage of family business in one sample can differ between 15% and 81% (Westhead, Cowling, & Storey, 1997). Moreover, many empirical studies do not operationalize what is meant by family business (Kayser & Wallau, 2002).

2.1   Reasons for lack of quantitative research

Although much qualitative research exists on family-owned businesses, few quantitative studies have been sought to determine their precise cumulative size and economic impact. The lack of substantial data is not surprising. Until recently few academics, governmental agencies, or data gathering enterprises, regarded families in business as characteristically distinct entities (Lansberg, Perrow & Rogolsky, 1988). Most research on family business is less than 10 years old.

Another reason why more extensive quantitative research has not been accomplished is the difficulty in defining and identifying family businesses (Handler, 1989). Given the private nature of most family businesses, accurate information about them is not readily available. But even if all pertinent information were available, a common definition of what constitutes a family business does not exist. Unlike impartial measurements that separate small businesses from Fortune 500s, such as number of employees or sales revenues, there is no standard of measurement for specifying a family business. Without a precise definition or formula for distinguishing family run businesses from their non-family counterparts, research regarding their prevalence and economic contributions is difficult (Handler, 1989).

2.2 Family firms in the literature

A review of the literature suggests *three principal ways* in which definitions can be considered: *content*, *purpose*, and *form* (Flören, 2002). Most definitions focus on content (Handler, 1989; Heck & Scannell, 1999; Litz, 1995). Many early definitions contained ownership (Berry, 1975; Lansberg, Perrow, & Rogolsky, 1988), management involvement of an owning family (Barnes & Hershon, 1976; Burch, 1972), or generational transfer (Ward, 1987).

In contrast, more recent definitions concentrate on family business culture (Chua, Chrisman, & Sharma, 1999; Dreux IV & Brown, 1994; Litz, 1995). Possibly owing to practical reasons, a number of recently published articles have utilized definitions that have concentrated on family ownership (Anderson & Reeb, 2003; Klein & Blondel, 2002; Littunen & Hyrsky, 2000).

Chua et al. (1999) emphasized that one has to distinguish a theoretical definition from an operational one, such that a "theoretical definition sets the paradigm for the field of study and the standard against which the efficacy of an operational one must be measured". A definition of family business should measure what it purposes to measure and should assist in providing reliable (replicable) research results. The definition should be clear about which dimensions it refers. Moreover, a definition should be transparent and unambiguous.

2.3 Definitions

The choice of a definition has important implications for the way we collect data about family firms. In the academic world many definitions are used. The research of Chua, et al. (1999) starts with a review of the literature on the definitions of a family business, after which a theoretical definition is proposed based on a firm's intention and vision which captures the essence of a family business. In Exhibit 1, a list of 21 definitions that touch on the degree or nature of family involvement is presented. Several observations can be conducted concerning these definitions.

First, with few exceptions, the definitions do not differentiate between governance and management.

Second, some require controlling ownership or family management alone, while others require both ownership and management. Thus, the definitions include three qualifying combinations of ownership and management:

(A) Family owned and family managed

(B) Family owned but not family managed

(C) Family managed but not family owned

All of the definitions in Table 1 consider combination (A) to be a family business. There is disagreement, however, on the other two combinations, although most authors seem to prefer combination (B) over (C).

Third, while some definitions do not require family ownership, those that do imply, explicitly or implicitly, controlling ownership, although they differ with respect to the acceptable patterns of controlling ownership. The list of controlling owners include:

(A) An individual

(B) Two persons, unrelated by blood or marriage

(C) Two persons, related by blood or marriage

(D) A nuclear family (a family consisting of parents and their children and

grandparents of a marital partner)

(E) More than one nuclear family

(F) An extended family

(G) More than one extended family

(H) The public

Those definitions that are based on family ownership unanimously consider ownership by a nuclear family to be a qualifying ownership pattern. They disagree, however, about all the others, especially the last one, public ownership.

In summary, there appears to be total agreement that a business owned and managed by a nuclear family is a family business. Once one deviates from that particular combination of ownership pattern and management involvement, however, researchers hold different opinions.

Another research is the investigating of Shanker and Astrachan (1996). They believe that while anyone can intuitively recognize a "family business", even the field's experts find the task of defining precisely such businesses difficult. Family business scholars lack consensus on which criteria used to define family business include: percentage of ownership, voting control, power over strategic direction, involvement of multiple generations, active management by family members, and others. Figure 1 divides the criteria used to define family businesses into three groups: broad, middle and narrow definitions.
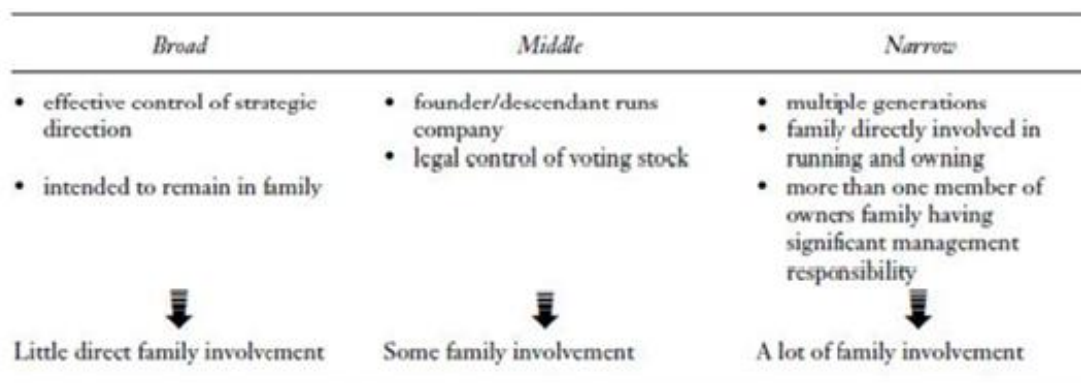
Figure 1: Family business definitions by degree of family involvement

Source: Shanker and Astrachan, 1996

The *broadest* and most inclusive definition requires that the family has some degree of effective control over strategic direction, and that the business is at least intended to remain in the family. This definition includes businesses where a family member is not in direct daily contact with the business but influences decision-making, perhaps through board membership or significant stock ownership.

The *middle* division would include all the criteria of the broadest group and would require that the founder or descendant runs the company. Again, this definition would include those businesses where only one member of the family is directly involved in the day-to-day operations.

The *narrowest* family business definition would require that the business has multiple generations involved, direct family involvement in daily operations, and more than one family member having significant management responsibility. The three rings of the "Bull's Eye" in Figure 2 below show how definitions can affect the size of the family business universe.
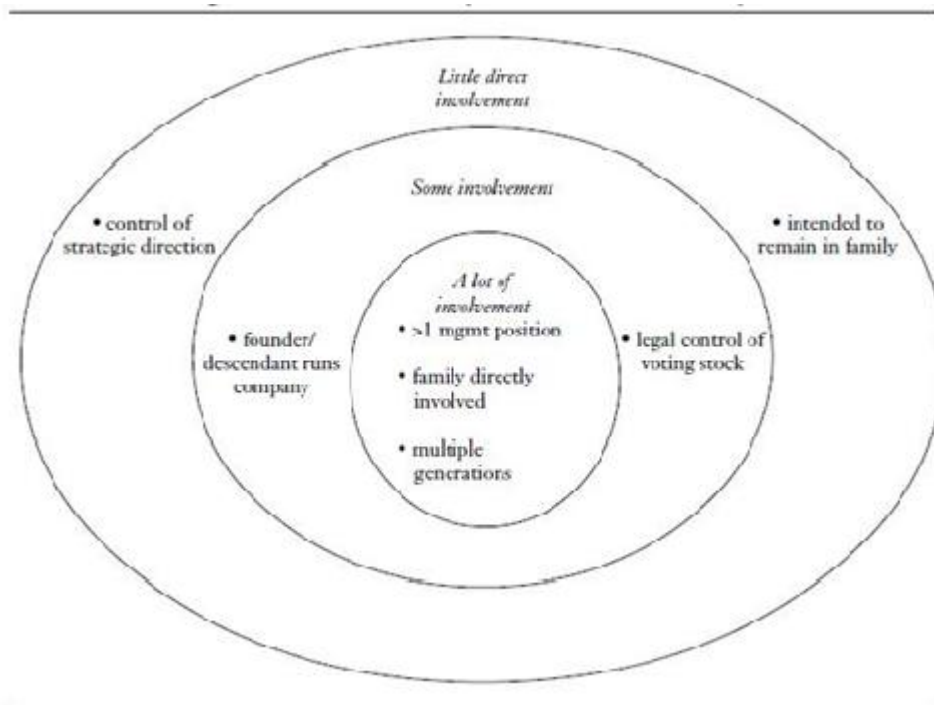
Figure 2: The family Universe Bull's Eye

Source: Shanker and Astrachan, 1996

A looser definition will ultimately include more businesses and result in larger economic contributions. While the outer ring of businesses appears to be legitimate "family firms", many people working in the field of family firms prefer more restricted family business definitions. One should distinguish the "type" of family business to which one refers before blindly accepting general statistics about family businesses' size and impact.

A more recent research is the study of Miller et al. (2007). In their study they present a list, of definitions of family firms that have been used in various studies around the world (Exhibit 2). It suggests that there are, indeed a wide variety of types that face a corresponding variety of conditions, and therefore there may be great variations in how such businesses perform.

For example, McConaughy et al. (1998) count as a family firm any company run by a founder or member of the founding family. Similarly, Anderson and Reeb (2003), Cronqvist and Nilsson (2003), Faccio and Lang (2002), La Porta et al. (1999), Smith and Amoako-Adu (1999), Barth et al. (2005) and others count as family businesses any firm in which a founding family or founding individual own a fraction of the company or serve on the board.

Villalonga and Amit (2006) examine a wide variety of definitions, encompassing different levels and generations of individual- or family-ownership and/or management. Other studies ensure involvement by multiple members of the same family, at least over time, by counting as family businesses only those in which there are several family members involved in owning or managing the business.

Bennedsen et al. (2008) and Perez-Gonzalez (2006), for example, focus on later generation businesses in which a blood relation of the founder or a major owner serves as the chief executive of the company. Gomez-Mejia et al. (2003) insist on multiple family members being involved in owning and operating the business.

2.3.1 An alternative method of defining family firms

Astrachan et al. (2002) sought a solution to the problem of defining family firms. They have designed the F-PEC scale, a scale which has the objective to investigate the degree of influence of a family on a business. The F-PEC scale contains three dimensions of family influence: power, experience and culture. The *power* dimension examines the extent to which the family can influence the company through its involvement in the shareholding and management of the company. The influence of the family through the board and management can be calculated as the percentage of family representatives who serve on the board of directors and management. The second dimension, the *experience*, includes the succession of the company and the number of families that

contribute to the company. The *culture* dimension examines the extent to which the values of the family correspond to the values of the company. A large overlap between family values and business values indicates a significant influence of the family on the business. Based on these three dimensions, the size of the family influence can be measured. Below, you can find a more detailed discussion of the three dimensions.

2.3.1.1   Power - Experience - Culture

The extent and manner of family involvement and influence on an enterprise is a pertinent issue. There are at least three important dimensions of family influence: Power, Experience, and Culture.

Power refers to dominance exercised through financing the business (shares held by the family) and through leading and/or controlling the business through management and/or governance participation by the family.

Experience refers to the summed experience that the family brings into the business and is operationalized by the generation in charge of management and ownership (the more generations, the more opportunity for relevant family memory).

Culture refers to values and commitment and employs the Family Business Commitment Questionnaire (Carlock & Ward, 2001). Family commitment is seen in the overlap of business and family values.

Three dimensions of Power, Experience, and Culture comprise the F-PEC scale, an index of family influence. Lazarsfeld (1937), quoted after Schnell, Hill, and Esser (1995), identified three critical reasons for developing a scale: functional reduction, arbitrary numerical reduction, and pragmatic reduction. Concerning the F-PEC scale, pragmatic reduction is perhaps one of the most important reasons for its development. The F-PEC heralds objectivity and standardization of measurement across investigations as well. The F-PEC scale is illustrated in the figure below.
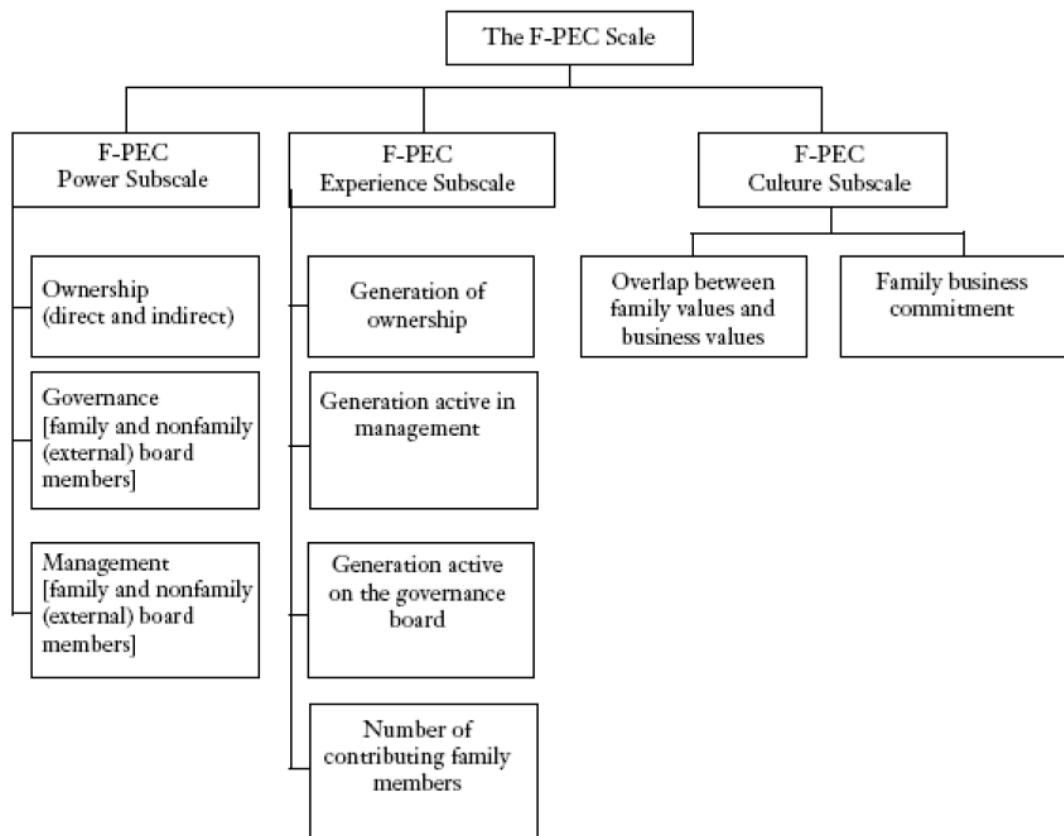
Figure 3: The F-PEC scale

Source: Astrachan et al. (2002)

2.3.1.2   The results

The results of this study, which provide empirical support for the validity and reliability of the F-PEC scale, are important, because they have gained theoretical support and are already being applied widely (Klein, 2003; Pieper, 2003; Varamäki, Pihkala, & Routamaa, 2003), and is acknowledged by scholars (Bird et al., 2002; Chrisman, et al., 2003). Koiranen (2002) stated that this measure introduces a new conceptual model "which offers an excellent common ground or platform for sharpening family business definitions." Similarly, Niemelä (2003) developed a model of family business based on the F-PEC scale, serving as a framework for her study on inter-firm cooperation and networking. Thus, the focus of attention of family business researchers seems to be shifting from simple categorizations to recognition of the importance of family influence (Penttilä, 2003).

The Family Influence on Power, Experience, and Culture (F-PEC) helps to understand one facet of the complex organization, potential family influence. By allowing measurement of influence, it can add to our understanding of under what conditions influence is exercised and with what effect. The F-PEC scale provides a mean to explore all businesses along a continuum from intensive family involvement to no family at all.

2.4   Economic interest

In the academic literature there is no exact consensus on the number of family businesses and their contribution to gross domestic product. These differences can be explained by what was stated in section 2.3. There, it was said that different authors use different definitions of family businesses. On the other hand this non agreement about the GDP can be explained by the reports of Shanker and Astrachan (1996). They say that figures used for family firms are usually estimates who are not substantiated by thorough research.

The international research organization International Family Enterprise Research Academy (IFERA) performed in 2003 a survey in 45 countries (Institute for Family Business, 2006). Part of the results is summarized in Table 3. This table shows that family firms in Europe constitute the majority of business enterprises. According to IFERA, family firms in Belgium account for 70% of the total number of companies. However, this study does not specify which definition was used.

Van den Berghe and Carchon (2002) found in their research that 79% of Belgian companies are to be regarded as a family firm. They argue that at least one of the following criteria must be met in order to be labeled as a family business:

- A person holds more than 50% of the shares;
- A family owns more than 50% of the shares;
- A family is able to exert a strong influence on the policies of the company or the management of the company is (partly) from one family.

In the United States 95% of all businesses are labeled as family firms, a figure significantly higher than in Europe (Institute for Family Businesses, 2006). Lee (2004)

argues that this is 80%, using the definition that a company is a family firm when a company has family with a significant part of ownership or a significant control position.

Table 1: Family businesses as a percentage of the total number of companies in a country

Country	Family firm as % of the total number of companies in a country
Belgium	70%
Germany	60%
Netherlands	74%
Portugal	70%
France	60%
Great Britain	70%
Spain	75%
Sweden	79%
Finland	80%
Greece	80%
Cyprus	80%
Italy	93%

Source: IFERA (2003), results www.familiebedrijf.be

Family businesses deliver generally a major contribution to the economy. According to IFERA (2003), family firms contribute to 55% of gross national product in Belgium. They argue that this percentage is 40% for the United States while McConaughy et al (2001) consider that these companies account for approximately 60% of gross national product in the U.S.

2.5   Models for family firms

2.5.1 Family businesses as systems

Governance in family businesses is more complex than those in non-family businesses. This is explained by the nature of the family firm.

   a) The two - circle model of family business

The study of family businesses as systems began with a few standalone articles in the 1960s and 1970s. These early classics focused on typical problems that appeared to hinder family firms, such as nepotism[9], generational and sibling rivalry, and unprofessional management. The underlying conceptual model held that family businesses are actually made up of two overlapping subsystems: the family and the business. This model is presented in Figure 4. Each of these two "circles" has its own norms, membership rules, value structures, and organizational structures. Problems arise because the same individuals have to fulfill obligations in both circles – as parents and as professional managers (Tagiuri and Davis, 1980).
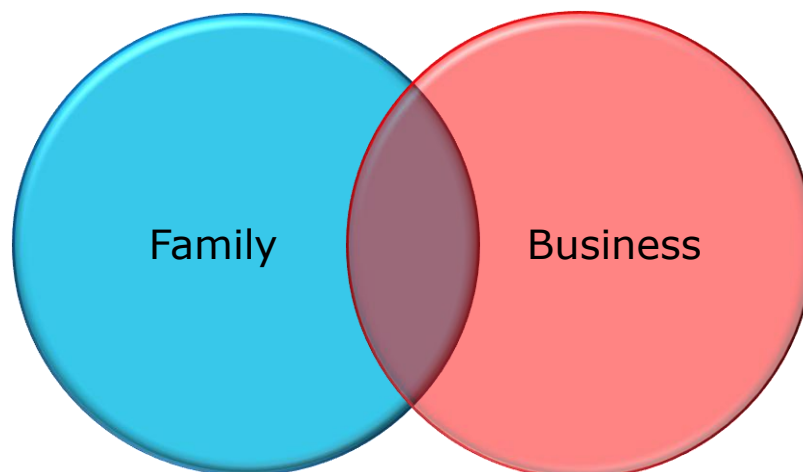
Figure 4: The two – circle model

Source: Tagiuri and Davis (1980)

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[9] ***Nepotism:*** Favoritism shown to relatives or close friends by those with power or influence.

b) The Three – circle model of family business

Tagiuri and Davis elaborated the two-system model with their work at Harvard in the early 1980s. They argued that a more accurate portrayal of the full range of family firms was needed. As a result, the three-circle model emerged. These three subsystems are illustrated in Figure 5 below.

The three-circle model describes the family business system as three independent but overlapping subsystems: business, ownership, and family. Any individual in a family business can be placed in one of the seven sectors that are formed by the overlapping circles of the subsystems.
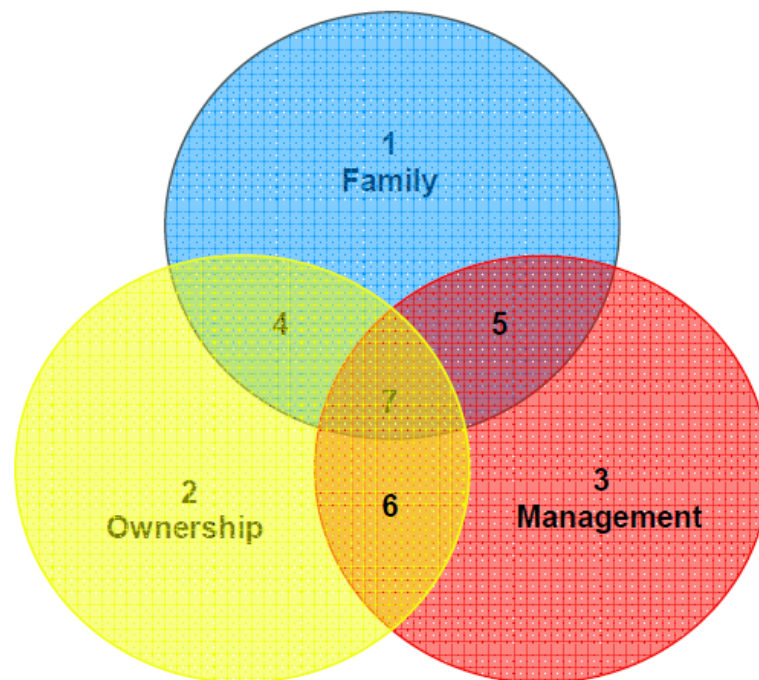
Figure 5: The Three - Circle model of a family business

Source: Taguiri and Davis (1996)

The parties in the family business system have differing perspectives depending on which of the segments they belong to. The numbers in Figure 5 refer to the various sectors in the three-circle model of family business. Sector 1 refers to those family members who are neither owners nor employees of the family firm. Those external investors or shareholders who are neither family members nor work for the firm are positioned in

Sector 2. Those managers or employees who work for the firm but are not members of the family nor owners in the company belong in Sector 3. Those in Sector 4 are so-called inactive or passive owners belonging to the family, who own shares but do not work for the firm. Those family members who work in the firm but do not own any shares are in Sector 5. Sector 6 refers to owner-managers who are not family members. Finally, those who are shareholders and family members and also work for the firm are in Sector 7.

The three subsystems each have their own values and objectives. A family is successful when it reaches unity and harmony and individual happiness. In such a case the company's focus is on profits and productivity. Employees are primarily valued on the basis of their contribution to the objectives of the company. The aspect of ownership of the family business, deals about the owners or shareholders, not necessarily active in the family business. They attach particular importance to the appreciation of their shares and the return to the family business yields.

These three aspects are present in any family business: they are a regular source of conflict and largely explain the complexity of the family business. In these systems individuals must manage issues within and across three overlapping groups: the family, the business, and the ownership group (see Figure 5). The overlap among the three groups often leads to differing points of view among individuals depending on their location in the three circles. To effectively manage business, family and ownership concerns require communication and decision making within and across the family, the business, and the ownership groups.

2.5.2 The three – dimensional developmental model of family business

In 1997, Gersick et al. proposed a developmental model to conceptualize the integration of the lifecycles of the subsystems of ownership, family, and business in family enterprises. They also identified the structural changes to be expected and planned as the subsystems progress through their lifecycles (Dunn, 1999). By adding development over time to the three-circle model, Gersick et al. (1997) worked out the three dimensional developmental model of family business that can be viewed in Figure 6.
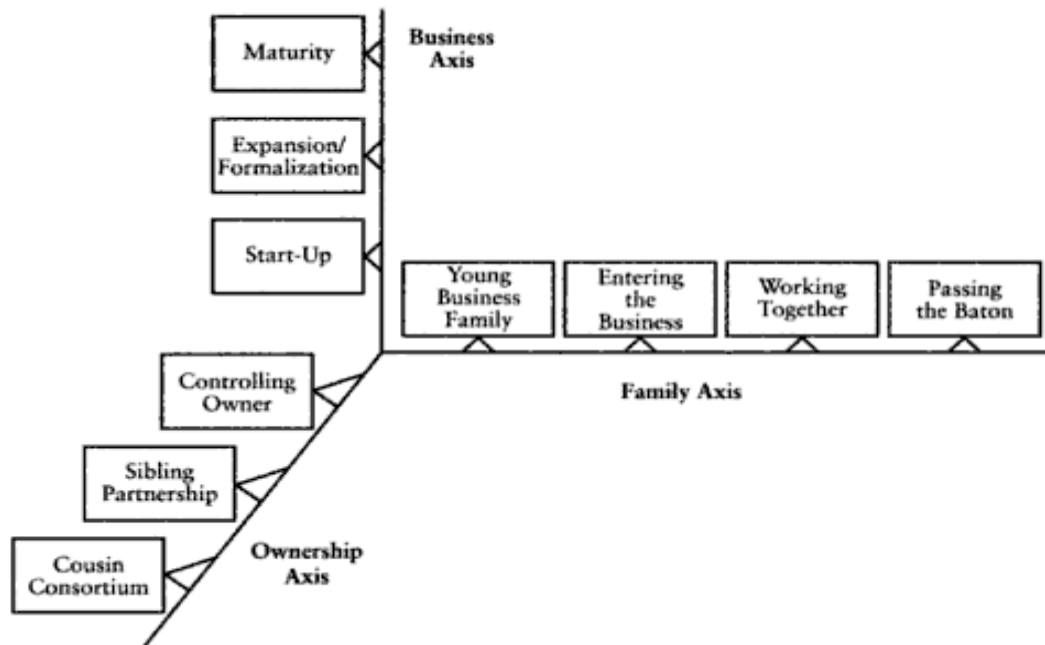
Figure 6: The Three-dimensional developmental model of family entrepreneurship

Source: Gersick et al.(1997)

In Dunn's (1999) words: "The three-circle model shows the complexity in the family business system by illustrating the many competing self-interests to be served at any snapshot in time. The developmental model shows that, by defining how family, business and ownership structures will inevitably change over single and multiple generations."

CHAPTER 3: AGENCY THEORY, STEWARDSHIP THEORY AND RESOURCE-BASED VIEW

This chapter discusses various theories related to family firms. It is crucial to have a vision of these theories because each predicts other performance effects. A clear view of these effects is of great importance to lead this thesis to a successful conclusion. This part will start with an overview of the agency theory in general followed by the agency problem in context of family firms. More specific, the agency problem between manager and owner (Agency Problem type I) and between majority and minority shareholders (Agency Problem type II) will be discussed. The next section will provide a description of stewardship theory and continue with the differences between agency and stewardship theory. The Resource Based View (RBV) is the next topic that will be reviewed. First, a short review of the RBV of a firm will be discussed, followed by an explanation of the pertinent and unique familiness resources. This chapter will end with a conclusion.

3.1   The Agency Theory

When there is a separation between management and ownership in a company, a primary agency problem may occur. This agency problem is concerned with the conflicts of interest between an agent acting as a representative of a principal. Theoretically, it arises from divergent interests and asymmetric information. If both parties have the same interests, then there is no conflict of interest and no agency problem. In many instances, however, the two parties will have different interests (Jensen & Meckling, 1976).

As a result of asymmetric information, agency problems fall into two basic categories: adverse selection and moral hazard. *Adverse selection* occurs when the principal inadvertently contracts with an agent who is less able, committed, industrious, or ethical, or whose interests are less compatible than the principal expected. *Moral hazard*, on the other hand, involves commission or omission of actions, after contracting that work in the interest of the agent but are detrimental to that of the principal.

Conceptually, if information is perfect and costless, and people are unbounded in their mental capabilities, then principals and agents can write a complete contract that anticipates and provides for every eventuality (Williamson, 1975). There will be few or no moral hazard problems because an agent cannot engage in opportunistic behavior without suffering the consequences enforceable by the principal under the contract.

In reality, people have bounded rationality: their capacity to process information, deal with complexity, and identify and pursue optimal actions is limited (Simon, 1957). The outcome is an incomplete contract between principal and agent (Williamson, 1975). Furthermore, information is imperfect and costly to obtain. For example, whether agents are exerting their full creative efforts is not easy to determine.

To control the adverse selection problem, principals have to incur higher search and verification costs. To control the moral hazard problem, principals must use an optimal combination of incentives, punishments, bonding, and managerial processes to align interests and monitor agents' actions. These constitute the agency costs of dealing with principal-agent relationships. The processes, systems, and structures set up for such purpose of monitoring and alignment of interests are described as *agency cost control mechanisms.* These costs and mechanisms apply to all sources of agency problems.

3.1.1 Agency theory in family firms

3.1.1.1   Agency problem between management and owners (Agency Problem I)

In theory, owner-managed firms in general, and family firms in particular, should have less need to control agency problems than publicly held firms because of the shared interests of principals and agents (e.g., Ang, Cole, & Lin, 2000; Jensen & Meckling, 1976). Also, because ownership aligns managers' attitudes toward growth opportunities and risks, thereby lowering the cost of reaching, monitoring, and enforcing agreements (Jensen, 1998; Jensen & Meckling, 1976).

Specifically, when managers hold an equity stake in the business, their personal involvement assures that managers will not expropriate shareholder wealth through the consumption of perquisites and misallocation of resources (Fama & Jensen, 1983).

Accordingly, owner-management should substitute for the costly control mechanisms that non-owner-managed firms use to limit agency problems. Furthermore, family owner-management should be an efficient form of owner-management because "family members have many dimensions of exchange with one another over a long horizon, and therefore have advantages in monitoring and disciplining related decision agents" (Fama & Jensen, 1983).

Field studies conclude otherwise. Levinson (1971) observes that family firms are "plagued by conflicts" which cause many to flounder, if not fail. Meyer and Zucker (1989) observe that these firms are vulnerable to a form of inactivity that can paralyze decision-making and threaten firm survival. Folklore presents an ironic Mandela where the expression from "rags to riches" ends with to "rags in three generations" (Ward, 1987).

Hofer & Charan (1984) investigated in their study the effect of agency when professionalization in family firms is present. Professionalization implies that owner-managers will delegate authority to middle level managers who are not necessarily owners (Hofer & Charan, 1984). Thus, this professionalization can lead to agency problems in both privately held family and nonfamily firms. Agency problems can also develop in family firms because a family consists of more than just the entrepreneur. When children reach adulthood and become involved in a family firm, their interests may deviate from those of the principal owner(s) despite the fact that they may have, in reality or by expectation, residual claims to the business.

Next, I would like to continue with the study of Schulze, et al. (2000). In their study, they propose an agency model (Figure 7) that specifically accounts for problems associated with the governance of family firms. The reason why I use this model as guideline, is because the aim of this agency model is to resolve the *discrepancy between theory and evidence from field studies* within family firms. Extant models in contrast, understate agency problems that arise in family firms and ignore altruism.
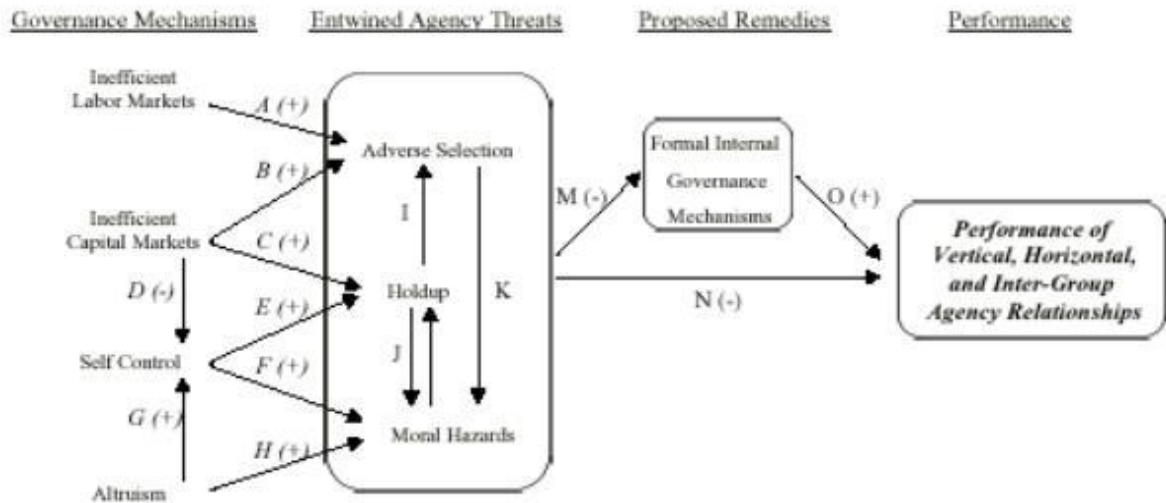
Figure 7: Model of agency relationships in family firms

Source: Schulze, Lubatkin and Dino, 2000

Below, a more detailed description of the model of agency relationship in family firms (Schulze, Lubatkin and Dino, 2000) can be found.

A) Agency problems associated with owner-control

Owner-control engenders the agency problems of adverse selection[10] and holdup[11] (arrows A, B and C in the figure) because it causes the family firms' capital and labor markets to fail. Widely-held firms are presumed to face efficient capital and labor markets whose external governance significantly reduces the threat of adverse selection and holdup to these firms (Besanko, Dranove & Shanley, 1996; Stulz, 1988).

B) Family management and capital market failures expose family firms to agency problems rooted in self-control (arrow D)

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[10] ***Adverse selection:*** Refers to a situation in which one party has relevant information that the other party lack (or vice versa) about some aspects.

[11] ***Holdup:*** Ineffective governance and incentives to free-ride and shirk.

Self-control problems can compel owner-managers to take actions that can "harm themselves as well as those around them" (Jensen, 1994). These "agency problems with oneself" (Thaler & Shefrin, 1981) increase agency costs and prevent increased ownership share from bringing the owner-managers' interests into alignment. Accordingly, it can be concluded that owner-management not only fails to minimize the agency costs of ownership, but can actually engender moral hazard[12] and holdup.

The theory also accounts for self-control problems associated with altruism (Arrow G). In brief, altruism characterizes family relationships (Stark, 1989) and compels parents to act generously to their children. However, altruism can engender information asymmetries, and hence moral hazard (Arrow H), because a parent's generosity can give children incentive to take actions that are not in the children's best interest (Buchanan, 1975). Schulze et al. (2000) extend this insight from the household economics literature (Becker; 1974; 1981; Bergstrom, 1989; Samuelson, 1993; Simon, 1993; Stark, 1995) to the domain of the family firm, and posit that family firms experience agency problems due to the information asymmetries that altruism engenders. Thus, while Fama and Jensen (1983) assert that "special relations among decision agents," allow family firms to efficiently monitor family agent conduct and settle disputes, Schulze et al. (2000) argue that family relations make agency problems associated with owner-control and owner-management even more difficult to resolve.

C) Problems associated with owner-control and owner-management

Finally, the theory hypothesizes that the problems associated with owner-control and owner-management are entwined such that the agency threats engendered by one amplify the threats posed by the other (Arrows I, J & K). For example, the capital and labor market inefficiencies that accompany owner-control increase the need for owner-managers to guard against the detrimental effects of adverse selection and holdup (Arrows A, B & C). The owner-manager's ability to monitor agent behavior, however, is compromised by the effect of owner-management on the firm's internal labor market. In addition, owner-control increases the likelihood that owners will use the firm's resources to enhance their personal utility while the accompanying capital market failures makes it more costly for owners to monitor and discipline each other's conduct.

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[12] ***Moral hazard:*** occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the perspective of the party with less information.

In other words, agency problems associated with self-control combined with problems associated with owner-management create a complex web of agency problems that can threaten the performance of privately-held family-managed firms.

From the agency model it can be deduced that performance debilitating conflicts between the founder and family member/agents, among family member/agents, and between family member/agents and non-family agents are likely to arise in privately-held family-managed firms (i.e., agency problems in vertical, horizontal, intergroup relationships, or Arrow N). However, they can minimize these threats by investing in the types of internal governance mechanisms that widely-held firms use to discipline management and settle conflicts of interest among stakeholders. These measures include strong boards of directors, carefully designed decision hierarchies, and the adoption of incentive structures that encourage mutual monitoring among owner-managers (Arrows M and O).

Schulze et al. (2001), invoking the asymmetric altruism (Bergstrom, 1989; Bernheim & Stark, 1988) and self-control (Thaler & Shefrin, 1981) literature in economics, argue that asymmetric altruism between family members can actually promote shirking[13] and free riding[14] in two ways. First, asymmetric altruism and lack of self-control can together make it difficult to enforce the explicit and implicit contracts between family owners and family members working in the business when the latter engage in opportunistic behavior. Second, altruism can color performance evaluations. Several studies have supported the premise that asymmetric altruism can have a significant impact on the behavior and performance of family firms (e.g., Chrisman, Chua, Kellermanns, & Chang, 2007; Karra et al., 2006; Schulze et al., 2001, 2003).

3.1.1.2   Agency problem between majority and minority shareholders (Agency Problem II)

Villalonga and Amit (2006) describe a second agency problem. They show that this problem stems from the conflicting interests of majority shareholders and minority shareholders. Ali et al. (2005) argue that this problem is more common than family

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[13] **Shirk:** To avoid work or duty (e.g., leave an assigned household chore for a parent to complete or be a spendthrift with their parent's money)

[14] **Free riding:** Party that enjoys a benefit accruing from a collective effort, but contributes little or nothing to the effort.

agency problem between managers and owners. In family businesses, the majority of the shares are held by the family, and the remaining shares are usually spread among some minority shareholders. The latter then have little to say about the policy of the company. The directors are appointed at the general meeting but it is the family that has the majority of the votes.

Anderson and Reeb (2004), argue that the families who possess the majority of the shares, try to reduce the risk of the company, to protect the welfare of the family. They keep their own interests above those of other stakeholders. Also known, is that family members often assign themselves with a large part of the operating profit in the form of special dividends (DeAngelo en DeAngelo, 2000). These reduced risk taking and special dividends could have an impact on the performance of family firms.

3.1.1.3   The effect of ownership on performance with agency problem

Berle and Means (1932) argue that the managers of firms pursue their own interests and neglect shareholders. This sort of agency problem is described as an*other people's money problem*. Jensen and Meckling (1976) argue that, all else equal, firm value should rise with increased insider ownership because managers are more attentive to shareholder value when they themselves are shareholders. This situation often occurs in family firms. The region between points A and B in Figure 8 illustrates this hypothesis.
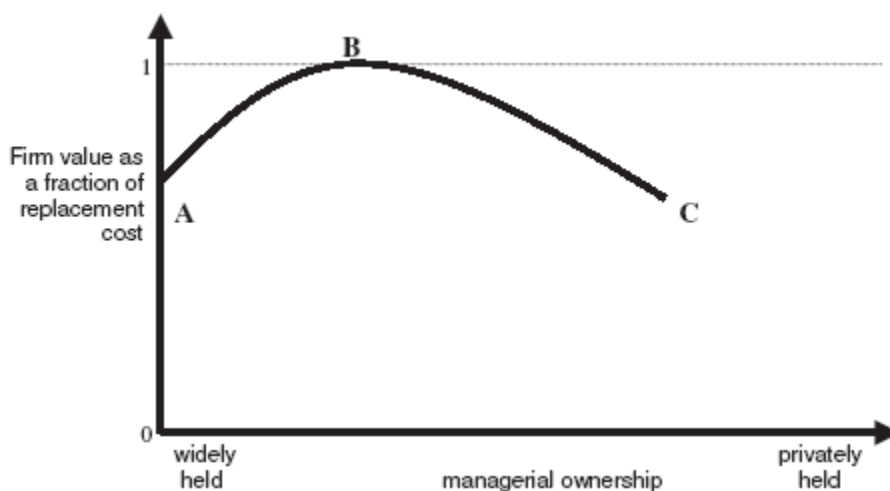
Figure 8: Exhibition of the value of a firm with managerial ownership

Source: Morck en Yeung (2003)

However, numerous studies, beginning with Morck, Shleifer, and Vishny (1988), find that firm value only rises with insider ownership where initial insider ownership is very small. Where insider ownership is already substantial, further insider equity ownership is associated with reduced shareholder value, as in the region from B to C in Figure 8. Beyond point B, these detrimental effects of increased managerial ownership come to dominate its beneficial effects.

3.2   Stewardship theory

Stewardship theory has its roots in psychology and sociology and was designed for researchers to examine situations in which executives as stewards are motivated to act in the best interests of their principals (Donaldson & Davis, 1989, 1991). In stewardship theory, a steward has higher utility than individualistic, self-serving behaviors. Given a choice between self-serving behavior and pro-organizational behavior, a steward's behavior will not depart from the interests of his or her organization. Stewards will not substitute or trade self-serving behaviors for cooperative behaviors. Thus, even where the interests of the steward and the principal are not aligned, the steward places higher value on cooperation than defection (terms found in game theory).

According to stewardship theory, the behavior of the steward is collective, because the steward seeks to attain the objectives of the organization (e.g., sales growth or profitability). A steward protects and maximizes shareholders' wealth through firm performance, because, by doing so, the steward's utility functions are maximized. Stewardship may produce group solidarity, trust, and loyalty—the precursors of "social capital" (Bourdieu, 1986).

Given the potential multiplicity of shareholders' objectives, a steward's behavior can be considered organizationally centered. Stewards in loosely coupled, heterogeneous organizations with competing stakeholders and competing shareholder objectives are motivated to make decisions that they perceive are in the best interests of the group. A steward who successfully improves the performance of the organization generally satisfies most groups, because most stakeholder groups have interests that are well served by increasing organizational wealth. Therefore, a pro-organizational steward is

motivated to maximize organizational performance, thereby satisfying the competing interests of shareholders (Donaldson & Davis, 1989, 1991, 1994; Fox & Hamilton, 1994).

The difference between the agent and the principal is how these needs are met. The steward realizes the trade-off between personal needs and organizational objectives and believes that by working toward organizational, collective ends, personal needs are met. Hence, the steward's opportunity set is constrained by the perception that the utility gained from pro-organizational behavior is higher than the utility that can be gained through individualistic, self-serving behavior. Stewards believe their interests are aligned with that of the corporation and its owners. Thus, the steward's interests and utility motivations are directed to organizational rather than personal objectives (Donaldson & Davis, 1989, 1991).

Stewardship theorists argue that the performance of a steward is affected by whether the structural situation in which he or she is located facilitates effective action. If the executive's motivations fit the model of man underlying stewardship theory, empowering governance structures and mechanisms are appropriate. Thus, a steward's autonomy should be deliberately extended to maximize the benefits of a steward, because he or she can be trusted. In this case, the amount of resources that are necessary to guarantee pro-organizational behavior from an individualistic agent (i.e., monitoring and incentive or bonding costs) are diminished, because a steward is motivated to behave in ways that are consistent with organizational objectives (Davis, Schoorman, & Donaldson, 1997). Indeed, control can be potentially counterproductive, because it undermines the pro-organizational behavior of the steward, by lowering his or her motivation (Argyris, 1964). The essential assumption underlying the prescriptions of stewardship theory is that the behaviors of the executive are aligned with the interests of the principals.

Kellermanns and Eddleston (2004) recently investigated the call for research that considers the positive aspects and advantages the family can contribute to family firms. Because the family shapes a family firm's culture, family members can be encouraged to behave as either "the self-serving, economically rational man postulated by agency theory, or the self-actualizing, collective serving man suggested by stewardship theory" (Corbetta and Salvato, 2004). Stewardship theory appears to be a suitable perspective in viewing the family as a resource because it depicts organizational members as collectivists, pro-organizational and trustworthy (Davis et al., 1997). When family

members are stewards of their organizations, they are motivated to fulfill organizational goals and to maximize firm performance (Davis et al., 1997).

Family firms are often depicted as relying on mutual trust, intra-familial concern, devotion to others (Corbetta and Salvato, 2004; Greenwood, 2003). Stewardship theory proposes that stewards maximize their own utility by acting in their organization's best interest to attain the objectives of the organization, such as sales growth and profitability (Davis et al., 1997). Indeed, a stewardship philosophy has been argued to be common among successful family businesses (Corbetta and Salvato, 2004). It has been proposed that the heightened involvement encouraged by the stewardship philosophy creates a sense of psychological ownership that motivates the family to behave in the best interest of the firm (Corbetta and Salvato, 2004; Zahra, 2003). For example, psychological ownership is related to feelings of responsibility and a sense of burden sharing for the organization (Pierce et al., 2001).

A key component of the stewardship perspective of the family firm is *altruism* (Zahra, 2003). Family firms that are characterized as altruistic may have an advantage because members' interests are more aligned with the success of the family firm. In such altruistic family firms, members are highly dedicated to the business and members believe that they have a common family responsibility to see the business prosper (Cabrera-Suarez et al., 2001). For example, family firm members have been found to be more committed to their organizations and to experience greater expectations for performance than members in nonfamily businesses (Beehr et al., 1997).

Accordingly, altruistic family firm members can be seen as stewards of the firm. Although others have focused on how altruism affects the parent–child relationship and compels parents to be overly generous toward their children thereby encouraging children to freeride and remain dependent upon their parents (Schulze et al., 2002, 2003a), Kellermanns and Eddleston (2004) in contrast, focus on the reciprocal aspect of altruism that can embody the family unit. In line with stewardship theory (Davis et al., 1997), altruistic families are characterized as possessing collectivistic orientations that encourage family members to exercise self-restraint and to consider the effect of their actions on the firm (Corbetta and Salvato, 2004; Kellermanns and Eddleston, 2004). Therefore, altruism appears to promote the family bond by fostering loyalty, interdependence and commitment to the family's long term prosperity (Ward, 1987).

However, the degree of altruism varies greatly among families; that is, families differ in their level of cohesion and strength of bonding among family members (Lansberg and Astrachan, 1994). In family firms with much altruism, communication and cooperation can be expected to be high (Daily and Dollinger, 1992; Simon, 1993). In line with the stewardship perspective of family firms, altruism is expected to reinforce family members' interdependence and to encourage them to place the firm's objectives ahead of their own (Zahra, 2003). This sense of commitment to the family as well as to the firm may help family members to get along and cooperate. Indeed, "a high degree of altruism influences individual conduct in family firms and helps strengthen family bonds" (Corbetta and Salvato, 2004).

Kellermanns and Eddleston (2004) also investigated in their study control concentration in family firms and the link with the stewardship theory. According to the stewardship theory, control concentration can be considered as an important factor that influences the effects of family relationships in family firms. Indeed, this variable helps to explain the motivation for members to act as stewards of the firm versus their propensity to act antagonistically (Corbetta and Salvato, 2004). Control concentration is defined as the level of power held by family firm members (Gersick et al., 1997). The degree of control concentration greatly varies among family firms. Some family firms have only one controlling owner, while others have several siblings controlling the firm, while still others have a great number of family members of various relations in control of the firm (Gersick et al., 1997). Low levels of control concentration indicate that many individuals share power in the family business, whereas higher levels indicate that the power in the organization is limited to a select few or one individual. The dominant coalition refers to the powerful actors in a firm who control their organization's development and future (Cyert and March, 1963; Hambrick and Mason, 1984). This coalition can consist of a wide variety of family members who share a common vision or it can consist of a single individual, most often the founder or later-generation controlling owner (Chua et al., 1999). In the case of low concentration of control, organizational members are much more likely to participate in the development of organizational strategies (Ruekert andWalker, 1987). When control is shared, no one person is likely to dominate the decision making process (Davis and Harveston, 2001). Although control is often highly centralized in family firms (Gersick et al., 1997), a lower level of control concentration is extremely desirable, since the sharing of control and power is expected to improve

creative goal achievement (Schwarz, 1990) and to be associated with greater family member involvement in the decision-making process (Kellermanns and Eddleston, 2004).

This is in line with stewardship theory which espouses the importance of an empowering and involvement oriented management philosophy (Davis et al., 1997). Therefore, in firms with a low concentration of control, greater participation in the strategy-making process is expected. On the other hand, a high concentration of control has been shown to lead to a less participative atmosphere in family firms (Ronstadt, 1984). For example, past research has suggested that the dominant leaders of a family firm are often reluctant to let members from newer generations join in the strategy-making process of a business (Handler, 1989; Lansberg, 1999; Stavrou, 1999). These dominant individuals often make themselves indispensable to the business in an effort to retain decision-making authority (Handler, 1989; Lansberg, 1988). Family firms with high control concentrations tend to be characterized as having owners who control their organization's structure and strategy without the input of other family members (Westhead et al., 2002). Furthermore, stewardship theory suggests that individuals working in very controlling environments often demonstrate withdrawal behaviors (Davis et al., 1997). Therefore, a high level of control concentration is predicted to be associated with a less participative strategy process in family firms.

Family stewardship motivations may shape organizational conduct and performance. A firm's missions, values, and practices, as well as systems of shared meanings, may be molded in the family and transferred to a business in which family members fill in influential positions (Arrègle et al., 2007). That family influence has been shown to give rise to a "long-run approach" that is anathema to the obsession with current earnings, the core theme of stewardship being to promote the robustness and long-term sustainability of the business (Miller & Le Breton-Miller, 2005). Whereas agency scholars predicted that family businesses would underinvest in core competencies and business renewal, the attitudes born of stewardship would suggest the opposite. If families feel unusual concern for the future of the business, they will invest profoundly in its capabilities (Miller & Le Breton-Miller, 2005; Miller et al., 2008).

3.2.1 Differences between stewardship theory and agency theory

Stewardship theory contrasts directly with agency theory. First, it takes a broader view of human behavior, proposing that individuals are motivated not only by self-interest, but also by service to others, altruism, and generosity (Davis, Schoorman, & Donaldson, 1997). Moreover, as opposed to people behaving as homo economicus, and being motivated solely by economic considerations, stewardship proponents see as pivotal higher level needs, such as self-actualization, through the fulfillment of personal values and aspirations (Donaldson, 1990). The former needs are largely extrinsic and enforced by institutional rewards and sanctions. The latter needs are intrinsic and a function of personal motivations (Davis et al., 1997).

3.3   The resource-based view (RBV)

Several scholars propose the use of strategic management as an organizing framework in family business research (Sharma, Chrisman, & Chua, 1996). In particular, family business firms must manage resources effectively in order to compete in today's dynamic markets. In so doing, they must identify and exploit opportunities in the market while simultaneously gaining and sustaining a competitive advantage (Hitt, Ireland, Camp, & Sexton, 2001, 2002). Figure 9 illustrates the general RBV model of familiness, including the "black box" of familiness resources and capabilities.
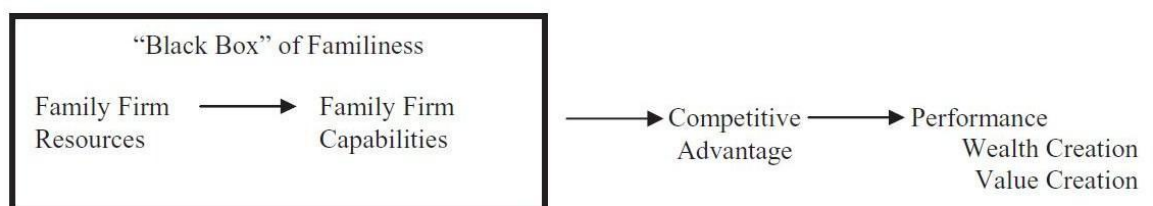
Figure 9: General RBV model of Familiness

Source: Habbershon and Williams, 1999

The resource-based view (RBV) of the firm, a prominent theory in strategic management, provides the logic to understand how family firms can simultaneously seek opportunities and competitive advantage. Family firms have several unique resources that have been referred to as the "familiness" of the firm (Cabrera-Suarez, De Saa-Perez, & Garcia-Almeida, 2001; Habbershon & Williams, 1999). These unique resources are human capital, social capital, patient capital and survivability capital, along with the governance structure attribute.

This perspective suggests that returns achieved by firms are largely attributable to their resources (Penrose, 1959). Based on the assumptions that firms can hold heterogeneous and idiosyncratic resources for extended periods, Barney (1991) described *four key characteristics* necessary for resources to provide a sustained competitive advantage.

Figure 10: The VRIN framework

Source: Barney (1991)

Resources must be valuable and rare to create a competitive advantage. But, for a resource to produce a sustainable competitive advantage (for a reasonable period), it must also be difficult to imitate and non-substitutable. This is called the VRIN framework

The relationships between resources and performance suggested by the RBV have largely been supported. For example, Miller and Shamsie (1996) found that different types of resources explained performance in contrasting environments. Hitt, Bierman, Shimizu, and Kochhar (2001) found that human capital has direct and indirect (interaction with strategy) effects on firm performance. Finally, Brush and Artz (1999) found that firm-

specific resources and capabilities required by the industry affected performance and could be used to protect a competitive advantage.

However, scholars have recently questioned the predictive power of the RBV without managerial involvement (Priem & Butler, 2001; Barney & Arikan, 2001; Mahoney, 1995). Therefore, while the resource profile of the firm may be important to performance, these resources must also be integrated and deployed effectively (i.e., through an appropriate strategy) to achieve a competitive advantage (Hitt, Ireland, & Hoskisson, 2001). This means that resources alone are not likely to produce a sustainable competitive advantage. Rather, the resources must be managed appropriately to produce value. Additionally, effective integration and deployment of resource bundles increases the difficulty of competitors in imitating or developing effective substitutes for these resource bundles.

3.3.1 Uniqueness of Family firms

Family firms' uniqueness arises from the integration of family and business life (Habbershon & Williams, 1999). The integration of the family and business creates several salient and unique characteristics; the focus will be on five traits that can differentiate family firms from nonfamily firms. These are human capital, social capital, survivability capital, patient capital, and governance structure.

3.3.2 Human Capital

Human capital represents the acquired knowledge, skills, and capabilities of a person that allows for unique and novel actions (Coleman, 1988). Family firms' human capital is complicated by the close proximity of dual relationships. Family members simultaneously participate in both business and family relationships in their personal and professional lives. The duality of these relationships increases their complexity and creates a unique context for human capital (both positive and negative), compared to nonfamily firms.

There are limits to the quality and quantity of human capital in family firms. Dunn (1995) found that the goal of employing family members could lead to hiring suboptimal employees. Furthermore, family firms frequently have trouble attracting and retaining

highly qualified managers. Qualified managers may avoid family firms due to the exclusive succession, limited potential for professional growth, lack of perceived professionalism, and limitations on wealth transfer (Covin, 1994a, 1994b; Burack & Calero, 1981; Donnelley, 1964; Horton, 1986). Fiegener et al. (1996) found that while nonfamily firms emphasized outside work experience and university training in promotion decisions, family firms rarely did so. Thus, family firms may undervalue managers considered well trained by most standards.

However, positive attributes of family firms' human capital include extraordinary commitment (Donnelley, 1964; Horton, 1986), warm, friendly, and intimate relationships (Horton, 1986), and the potential for deep firm-specific tacit knowledge. The potential for the early involvement of children in the family firm can produce deeper levels of firm-specific tacit knowledge. Having both negative and positive human capital attributes heightens the importance of the management of human capital to the success of family businesses (Astrachan & Kolenko, 1994).

3.3.3 Social capital

Whereas human capital focuses on individual attributes, social capital involves relationships between individuals or between organizations (Burt, 1997). Nahapiet and Ghoshal (1998) define social capital as the "sum of the actual and potential resources embedded within and derived from the network". Social capital can affect a number of important firm activities such as interunit and interfirm resource exchange, the creation of intellectual capital, interfirm learning, supplier interactions, product innovation, and entrepreneurship (Adler & Kwon, 2002). In fact, Hitt, Ireland, Camp, & Sexton (2001, 2002) suggested that social capital provides information, technological knowledge, access to markets, and to complimentary resources.

As such, social capital is a highly important resource. Social capital is composed of three dimensions: structural, cognitive, and relational. The *structural* component is based on network ties and configuration. The *cognitive* dimension is based on a shared language and narratives, while the *relational* dimension is based on trust, norms, and obligations. Each of these dimensions is embedded within the family unit and in ties the family firm has with external stakeholders.

Coleman (1988) suggests that social capital influences the creation of human capital in subsequent generations. He argues that genetics inherited by a child may be irrelevant if strong social capital is not present to help develop the child. Both physical presence and strong relationships are needed for social capital to facilitate effective child development. Thus, the family firm with strong social capital may be unusually effective in developing the human capital of the next generation.

3.3.4 Patient Financial Capital

Finances within this work's focal family firms are also unique, having both positive and negative attributes. On the negative side, these family firms have limited sources of external financial capital because they avoid sharing equity with nonfamily members. Also, their size normally does not justify bond issues. As a result, these firms do not have access to the traditional equity or debt markets that are available to many nonfamily firms and to large family firms that have diluted intrafamily ownership.

On the positive side, these family firms provide effective structures to manage financial capital because they generally have a longer time horizon and are not as accountable for short-term results as are many nonfamily firms (Dreux, 1990). Also, the desire to perpetuate the business for future generations provides a special incentive to manage capital effectively (Gallo & Vilaseca, 1996; McConaughy & Phillips, 1999). This generational investment strategy creates desirable patient capital (Reynolds, 1992). Patient capital is financial capital that is invested without threat of liquidation for long periods (Dobrzynski, 1993). Thus, patient capital differs from the typical financial capital due to the intended time of investment (Teece, 1992; Dobrzynski, 1993).

3.3.5 Survivability Capital

Survivability capital represents the pooled personal resources that family members are willing to loan, contribute, or share for the benefit of the family business (Haynes et al., 1999; Horton, 1986; Dreux, 1990). These personal resources can take the form of free labor, loaned labor, additional equity investments, or monetary loans. This pool of external resources is available due to the family members' duality of family and business relationships and the warmth, dedication, and commitment of family members.

Survivability capital can help sustain the business during poor economic times or, for example, after an unsuccessful extension or new market venture. This safety net is less likely to occur in nonfamily firms due to the lack of loyalty, strong ties, or long-term commitments on the part of employees.

3.3.6 Governance Structure & Costs

Early agency theorists suggested that family owned and operated firms have highly desirable structures due to the lack of agency costs (Jensen & Meckling, 1976). However, current scholars argue against this viewpoint (i.e., Lubatkin, Lane, & Schulze, 2001; Gomez-Mejia, Nunez-Nickel, & Gutierrez, 2001). The accuracy of both viewpoints may depend on the type of family firm.

For example, Lubatkin, Lane, & Schulze (2001) suggest that family firms' agency costs begin to increase dramatically due to owner/mangers' altruism. However, the family firms on which this work is focused have mutually-shared objectives of wealth creation and the maintenance of family relatedness. Additionally, the agency costs may occur unevenly in the life cycle of a firm. An illustration, during succession of the CEO in the family firm, altruism may grow thereby increasing agency costs. However, succession in these firms is uncommon, with as much as 40 to 50 years between events. Thus, the focal firms enjoy lower governance costs, which can be a source of competitive advantage.

3.4 Conclusion

The literature on family business is in many respects dichotomous and divided. On the one hand there is the *agency theory* that addresses the relationship between a principal such as an owner, an agent, and the contract that binds them (Jensen & Meckling, 1976). Problems arise from asymmetric information and divergences of interest between the two parties. Agency problems emerge not only from "principal–agent conflict," but also from "owner–owner conflict" stemming from the divergent interests of majority and minority shareholders.

On the other hand there is the *stewardship theory* that contrasts directly with the agency theory. First, it takes a broader view of human behavior, proposing that individuals are motivated not only by self-interest, but also by service to others, altruism, and generosity. Moreover, as opposed to people behaving as homo economicus, and being motivated solely by economic considerations, stewardship proponents focus on the pivotal higher level needs, such as self-actualization, through the fulfillment of personal values and aspirations. The former needs are largely extrinsic and enforced by institutional rewards and sanctions. The latter needs are intrinsic and a function of personal motivations.

The *Resource-Based View (RBV)* of competitive advantage provides a theoretical framework from the field of strategic management for assessing the competitive advantages of family firms. The RBV isolates idiosyncratic resources that are complex, intangible and dynamic within a particular firm. The bundle of resources that are distinctive to a firm as a result of family involvement are identified as the "familiness" of the firm.

CHAPTER 4: FAMILY OWNERSHIP, MANAGEMENT, CONTROL AND GENERATIONS

This section will discuss four topics: family ownership, management, control and generations. Where possible, the topics will be split into listed and nonlisted family firms. After summarizing the most important studies about the first three topics, I will break down family firms into founder-run firms and second- or later-generation firms so the dimension generation also will be taking into account. Next, hypothesis will be formulated for each topic, ending with the conclusion.

4.1 Family ownership and firm performance

4.1.1 The relationship between family involvement in ownership (FIO) and performance on listed companies

Most studies on the relationship between FIO were run on listed companies. Results partially converge toward the acknowledgment of positive effects of FIO on performance.

Anderson and Reeb (2003) explored the relationship between founding-family ownership and firm performance in large public firms. They observed that founding families are a prevalent and important class of investors and that, generally speaking, FIO positively affects firm performance. More precisely, according to their findings, performance first increases as FIO increases but then decreases with increasing FIO, thus arriving at an inverted-U-shaped relationship.

Lee (2006) extended Anderson and Reeb's study and used further measures of performance: this study found that family-owned companies tend to experience higher employment and revenue growth over time and are more profitable.

Even more recently, Martinez, Stohr, and Quiroga (2007) conducted a similar study and proved that family owned firms perform better than nonfamily firms. Similarly, Sraer and Thesmar (2007) found that family-owned firms largely outperform.

Although studies generally support that there is a positive correlation between FIO and firm performance, some scholars have not found any influence of FIO on performance. In one case, it was even found that FIO influenced company performance negatively: Sraer and Thesmar (2007) found that nonfamily companies performed better in terms of sales growth.

4.1.2 The relationship between family involvement in ownership and performance on nonlisted companies

The main limitation of all these studies mentioned above is the fact that their sample is limited to large listed firms, although most firms are small or medium-sized and unlisted. Before Sciascia and Mazzola (2008), only two studies explored the relationship between FIO and performance on nonlisted companies: Westhead and Howorth (2006) and Castillo and Wakefield (2006). In their study, no correlations were found between FIO and performance although several types of performance measures were employed.

Because of this research gap, Sciascia and Mazzola (2008) investigated family involvement in ownership and management. In line with Westhead and Howorth (2006), Sciascia and Mazzola (2008) did not find any significant relation between FIO and performance in nonlisted companies.

This result can be interpreted as follows:

Explanation for not finding any significant relationship between FIO and performance is because there are both positive as negative effects of the *institutional overlap* [15] between family and business. In general, there is no threshold level that distinguishes those situations in which advantages outweigh disadvantages. There could be said that the benefits (positive effects of the institutional overlap) deriving from the long-term perspective and the survivability capital are all compensated by excessive family member pay, related-party transactions, special dividends, nepotism, and conflicts among shareholders (negative effects of the institutional overlap). Because of this compensation, no relationship could be found between FIO and firm performance in nonlisted companies according to these studies.

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[15] Institutional overlap: Chapter two, section 2.5.1

This result is in contrast with the findings of Anderson and Reeb (2003), Lee (2006), Villalonga and Amit (2006), Martinez et al. (2007), and Sraer and Thesmar (2007), but we can explain this situation by the fact that their samples are made up of nonlisted SMEs, while the other samples are made up of large listed companies, where the institutional overlap is often treated with care and the disadvantages of FIO are overcompensated by the benefits.

4.1.2.1   Arguments for FIO influences performance

A)   Arguments why FIO positively influences performance

The bright side of altruism

This section will use the brighter side of altruism to explain why family firms, whose controlling owners are able to exercise self-restraint, are able to capture the agency benefits of family owner-management.

To begin, it is important to note that even economists recognize altruism's potential to minimize agency conflicts. Simon (1993) and Eshel et al. (1998) note that altruism compels parents to care for their children, encourages family members to be considerate of one another, and makes family membership valuable in ways that both promote and sustain the family bond. This family bond, in turn, transfers a history, identity, and language to family firms that make them unique. Communication and some types of decision making are facilitated by the intimate knowledge about each other that family members bring into the firm (Gersick et al., 1997).

In addition, parental altruism fosters loyalty, as well as commitment by the family firm's leadership to the organization's long-run prosperity (Ward, 1987). It also makes each family member employed by the family firm, a owner of the firm in the sense that each acts in the belief that they have a residual claim or an option on the family's inheritance (Holtz-Eakin et al., 1993; Stark & Falk, 1998). This claim should further serve to align preferences for growth and risk taking within the family, and thus limit a major source of agency conflict.

This brighter side of altruism, however, also requires that parents discipline their altruistic impulses. Implicit to the dark side explanation (see next section) is the

behavioral economic assumption that an interaction between the owner-manager's altruistic impulse and their capacity to use the firm resources as they see fit can cause them to lose self-control. Taken to its illogical extreme, this view depicts a world in which children fail to learn the value of deferred gratification and reciprocity or the consequences of selfish behavior. Moreover, these children would be ill suited to teach their own children to value prudence, mutual respect, tolerance, frugality, and so on. Of course, parents are not necessarily destined by their altruistic trait to lose control. Indeed, the behavioral economic literature recognizes that while all individuals are capable of making suboptimal choices, they are also reasonably aware of those areas in their life where they have a propensity to lose control, and therefore they try to compensate accordingly (O'Donoghue & Rabin, 2000; Thaler & Shefrin, 1981). To do so, they commonly put into place self-governing mechanisms like rules and incentives to gain control over their behaviors. Others may anticipate and cope with their propensity for acting impulsively by adopting decision rules or taking measures to circumscribe their behavior. And, while no individual is perfectly self-disciplined, it is difficult to imagine that someone who had the vision and commitment to build a firm would be entirely undisciplined in their relationships with their offspring.

What is important is the ability of the parent to self-govern their parental altruistic impulses; those who can will be more apt to raise their children with the kind of values, like symmetrical altruism and reciprocity, that later in their lives will make them more reliable agents to the family firm.

Scholars agree on the fact that FIO often requires a long-term perspective within the firm which brings several benefits. Owners with longer investment horizons suffer less managerial myopia (Stein, 1988, 1989), invest more efficiently (James, 1999), and monitor the activities of managers better (Fama & Jensen, 1983). Such a long-term perspective derives mainly from the fact that the family intends to pass the company on to succeeding generations. In other words, owners view their firm as an asset to pass on to their descendants rather than wealth to consume during their lifetimes (Casson, 1999).

In addition, as recently argued by Zellweger (2007), the extended time horizon that characterizes family firms reduces the marginal risk of an investment and therefore the

corresponding risk-equivalent cost of equity capital (McNulty, Yeh, Schulze, & Lubatkin, 2002).

Consequently, family-owned firms can seize investment opportunities their nonfamily competitors do not consider as sufficiently attractive or consider too risky; "such a situation offers family-owned firms the possibility of developing their activities unhindered by aggressive competitors and of conquering markets that competitors cannot enter" (Zellweger, 2007)

Moreover, families may bring with them significant financial and physical resources, called "survivability capital" (Sirmon & Hitt, 2003), which can be used to sustain the business during economic hardship or after unsuccessful strategic moves (Dyer, 2006). These elements are usually known by customers and suppliers, who may establish and cultivate long-lasting relationships because of the goodwill and trustworthiness generated by the family commitment (Dollinger, 1995).

B) Arguments why FIO negatively influences performance

The dark side of altruism

It is tempting to conclude that family ownership and management naturally minimize agency costs while giving family directors the incentive to make investment decisions that serve the best interests of a firm and family. However, this positive portrait is at odds with evidence suggesting that these firms are "plagued by conflicts" (Levinson, 1971). I refer for this part to section 3.1.1.1 of chapter three where this item is discussed in detail.

Contrary to the tenets of agency theory, inside ownership and board oversight do not efficiently resolve the agency problems experienced by private, family-owned and - managed firms (Schulze, Lubatkin, Dino, and Buch holtz, 2001). In their study, Schulze et al. (2001) found indirect support that *altruism has a dark side*. Although it can temper self-interest and engender loyalty, commitment, and a long-term perspective, altruism

can also alter the incentive structure of a firm so that some of the agency benefits gained are offset by *free riding*[16] and other agency problems.

Economists tend to believe that the altruistic bond between parent and child is generally stronger and more enduring than it is between unrelated individuals. This compulsion can lead to agency problems, because it can cause parents to threaten their children with *moral hazard*[17]. M.H. Lubatkin et al. (2005) say in their study that parents have incentive to spoil their children and take actions that, however innocent the parent's intent, encourage the children to free-ride and shirk[18]. Kets De Vries (1996) reports that family firm founders have a tendency to lavish their children with gifts, perhaps to make up for their absence from the household when their children were young. Parental altruism, along with the controlling owner's self-control problems, therefore may exacerbate the agency problems of moral hazard associated with family firms' private ownership and owner-management.

This study also believes that parental altruism may exacerbate the agency problem of *adverse selection*[19]. Parental altruism and its associated self-control problem can expose the family firm to labor markets that are characterized by an unfavorable self-selection or sorting process, and, as a result, adverse selection problems.

Finally, there could be said that parental altruism may exacerbate the agency problem of *hold-up*[20]. That is, the challenges caused by parental altruism and its associated self-control problems will likely persist, because family agents face very high exit costs and, thus, are more vulnerable to being held up than are agents in public and non-family private firms.

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[16] **Free riding:** Party that enjoys a benefit accruing from a collective effort, but contributes little or nothing to the effort.

[17] **Moral hazard:** occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the perspective of the party with less information.

[18] **Shirk:** To avoid work or duty (e.g., leave an assigned household chore for a parent to complete or be a spendthrift with their parent's money)

[19] **Adverse selection:** Refers to a situation in which one party has relevant information that the other party lack (or vice versa) about some aspects.

[20] **Hold up:** Ineffective governance and incentives to free-ride and shirk.

Families can also be capable of reducing firm value through excessive compensation, related-party transaction, or special dividends (DeAngelo & DeAngelo, 2000). Barclay and Holderness (1989) argue that large ownership stakes, as in the case of family-owned firms, reduce the probability of bidding by other agents, thus reducing firm value. Similarly, *nepotism*[21] often characterizes the selection of managers by family owners, with negative impact on subsequent company management and results (Lansberg, 1983), and particularism makes it difficult for owning families to effectively evaluate family members (Dyer, 2006).

As noted by Burkart, Gromb, and Panunzi (1997), families acting on their own behalf can adversely affect employees' efforts and productivity, with negative effects on firm performance. All these reflections are related to the so-called institutional overlap of family and business that can reduce the efficiency of the firm and its performance in several respects (Davis, 1983).

In addition, family firms are fertile ground for misunderstanding and conflict among shareholders (Boles, 1996; Miller & Rice, 1989; Swartz, 1989), since divergent groups pursue competing goals (Gersick, Davis, Hampton, & Landsberg, 1997). Financial goals may conflict with nonfinancial goals (e.g., growth in revenue vs. increasing employment) and family objectives may conflict with business objectives (e.g., controlling the destiny of the firm vs. growing with the global market).

This section is divided to find a correlation between the ownerships influence on firm performance by addressing the following hypothesis.

HYPOTHESES 1a: Firm performance decreases with increasing family involvement in ownership, thus arriving at an inverted-U-shaped relationship.

HYPOTHESES 1b: Family firms with sole-ownership will have a less positive effect on firm performance than family owned firms.

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[21] *Nepotism:* Favoritism shown to relatives or close friends by those with power or influence.

4.2   Family management and firm performance

The concept of family involvement in management is distinct from that of FIO of the firm, given that family-owned companies can be managed by family or nonfamily members (Corbetta & Montemerlo, 1999).

4.2.1 The relationship between family involvement in management (FIM) and performance on listed companies

As far as listed companies are concerned, results are mixed. According to Lee (2006) FIM has positive effects on profitability, employment and revenue growth. On the other hand, Lauterbach and Vaninsky (1999), indicate that owner-manager firms, including family-owned firms, are less efficient in generating net income than firms run by nonfamily managers. Siding with them, Filatotchev et al. (2005), found a negative relationship between the percentage of directors linked to a family and a number of measures of profitability and firm value.

Some studies have tried to grasp the complexity of conflicting results, arriving at more articulated theses. Anderson and Reeb (2003), for instance, found that when family members serve as CEO, profitability is higher than with a nonfamily member CEO.

Sraer and Thesmar (2007), confirmed these findings and extended them to profitability and growth. According to Villalonga and Amit (2006), on the other hand, FIM can add or destroy value: it adds value when the founder serves as CEO or as chairperson but destroys value when descendants occupy these positions.

4.2.2 The relationship between family involvement in management and performance on nonlisted companies

In 1992, Daily and Dollinger explored the effects of FIM on firm performance, focusing on small family-owned firms, and their results were not significant. Family business research waited a few years before arriving at some significant findings on the relationship

between FIM and performance. However, results are conflicting and their focus is on listed companies.

Only three studies have been run on the relationship between FIM and performance in non-listed companies. McConaughy, Matthews, and Fialko (2001), argue that firms managed by the founding family have greater value, are operated more efficiently, and carry less debt than other firms. Castillo and Wakefield (2006), found a positive relationship between FIM and perceived ROI (return on investment). On the other hand, according to Westhead and Howorth (2006), a family CEO is associated with a lower propensity to export. Moreover, in the two latter pieces of research, no association was found between FIM and a number of objective and subjective performance measures.

In 2008, Sciascia and Mazzola also investigated the relationship between family involvement management and performance in nonlisted family firms. A negative quadratic relationship between FIM and performance was found. In this study, the results are also surprising; some scholars found a negative relationship between FIM and performance (Filatotchev et al., 2005; Lauterbach & Vaninsky, 1999; Westhead & Howorth, 2006), both in private and public firms, but it was simply linear. Thus, Sciascia and Mazzola (2008) contributed by adding some details to the nature of such a relationship. This result can be interpreted in the light of the below-mentioned theoretical perspectives.

The stewardship effect and the reduction of salaries and agency costs induced by the presence of family managers does not appear strong enough to compensate for the disadvantages deriving from a nonmonetary goal orientation. The costs deriving from the need to solve conflicts among family managers and the impossibility of enlarging the company's social and intellectual capital through the employment of nonfamily managers is a second interpretation. That is to say that the benefits deriving from reduced information asymmetries, interests' alignment, sense of belonging, and high commitment among family members are not as strong as hypothesized. The disadvantages of FIM overtake the benefits even at low levels.

FIM reduces both the competencies and the social capital of the firm, thus limiting the possibilities of acquiring new resources and combining them in novel and efficient ways to reduce costs and increase revenue. Conflicts and the orientation toward nonmonetary

objectives do not allow the family-managed company to focus on pursuing a satisfactory financial performance.

The nonlinearity of such negative effects on performance means, the higher the FIM, the higher the performance reduction. This means that the negative effects of FIM are more pronounced at higher levels of family member participation in management, especially when the whole management team is made up of family members and vice versa. Figure 11 represents this finding.
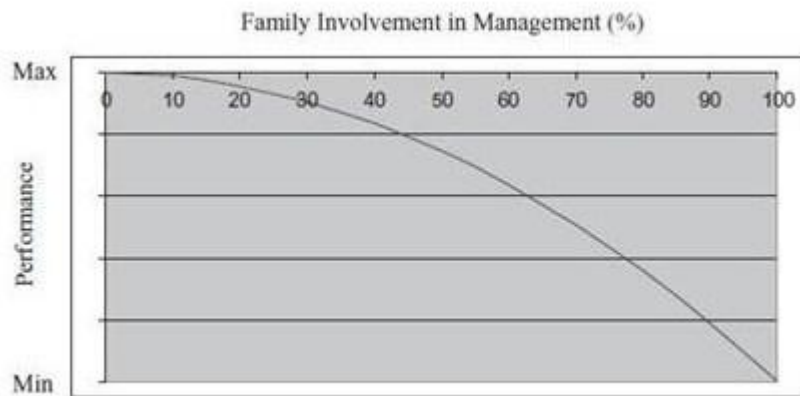
Figure 11: The quadratic negative relationship between FIM and performance

Source: Personal elaboration Sciascia and Mazzola (2008)

The slope of the curve at low levels of FIM is smaller than the slope of a generic linear function, while the slope of the curve at high levels of FIM is instead greater.

Eventually, FIO and FIM do not interact in influencing performance, thus confirming that FIO has no influence on performance. Company results in family business are affected only by the degree of presence of family members in the management team.

4.2.2.1   Arguments for FIM influences performance

A) Arguments why FIM positively influences performance

According to some scholars (Becker, 1974; Daily & Dollinger, 1992; Eisenhardt, 1989; Jensen & Meckling, 1976; Parsons, 1986), family-managed firms should be characterized

by reduced problems of agency and agency costs. This hypothesis has been tested and confirmed by Chrisman, Chua, and Litz (2004). FIM, in fact, aligns the interests of owners and managers and reduces information asymmetries. This resulting reduction in agency costs is associated with savings and thus with surplus resources that can generate superior financial returns (Miller & Le Breton-Miller, 2006).

In addition, in light of stewardship theory, it has been argued that family members act as stewards because they strongly identify with the firm (J.H. Davis, Schoorman, & Donaldson, 1997).

Active family members work, with a superior commitment (Ward, 1988) because they perceive firm performance as an extension of their own well-being. Since they operate with the expectation that they will be in office for a long time (Le Breton-Miller, Miller, & Steier, 2004), they avoid potentially hazardous moves to boost revenue and resist down-sizing expedients that may reduce costs at het expenses of human capital and employee morale; on the contrary, they make far-sighted investments, for example in R&D, training and infrastructure (Miller & Le Breton-Miller, 2006).

This phenomenon is transparent to all the stakeholders, who are consequently likely to maintain their relationship with the company (Anderson & Reeb, 2003). Family owned businesses exhibit much care about continuity, community and connection: specifically, about the long term preservation and nurturing of their business and its markets, the fostering of talent and effective deployment of employees, and an emphasis on growing and sustaining relationships with clients. Each of these forms of stewardship may make FOBs fine contributors to the technological and economic wealth of their communities, as well as unusually favorable places to work (Miller et al., 2008).

Moreover, family members have often been conditioned at a very young age to understand the nature of the business and have received hands-on training from other family members involved in the company (Dyer, 2006).

Finally, some studies on the determinants of executive compensation (e.g., Gomez-Meja, Larraza-Kintana, & Makri, 2003) reveal that CEOs of family-controlled firms receive lower total income than outsider CEOs: Incumbents with family ties to owners enjoy high employment security and trade it for lower earnings. This should increase company

profitability. According to Sraer and Thesmar (2007), the cost savings are not only related to CEO compensation but to that of any worker: Family-managed firms pay lower average wages. In these companies, labor demand appears less sensitive to industry shocks because family managers, thanks to their reputation and longer-term horizons, can commit themselves to honoring implicit labor contracts with their workers. Thus, they are allowed to pay lower wages in exchange for this form of insurance (Sraer & Thesmar, 2007).

B) Arguments why FIM negatively influences performance

Because the benefits of the stewardship effects and salary and agency cost reductions are limited to small amounts of FIM percentages: Disadvantages emerge after certain levels of FIM.

First of all, the benefits of reduced agency costs can be cancelled out by possible conflicts between family managers, who may have competing goals and values (Dyer, 2006). Family businesses are places where parties, while working together, can experience disagreement about task priorities and about how to accomplish them and can experience interpersonal incompatibilities on values and attitudes (Jehn, 1997). It has been shown that the family adds complexity to business conflicts and conflict resolution as family members can be concerned not only about business performance but also about their involvement in and satisfaction with the business (Sorenson, 1999).

Second, family managers have the possibility of substituting monetary for nonmonetary returns (Adems, Manners, Astrachan, & Mazzola, 2004): They often follow nonmonetary goals, such as independence, employment for family members, prestige (Sharma, Chrisman, & Chua, 1997). Zellweger (2006) has presented evidence that family business entrepreneurs tend to value emotional factors and consequently substitute them for the above-mentioned nonmonetary outcomes.

Third, family-managed firms may have greater difficulty in becoming successful as one of their major constraints could be a lack of professional management competencies (Dyer, 1989): That is, they may lack knowledge-based resources that impact on the effectiveness of management. Successful management requires the development of strategic plans as well as control systems for monitoring performance. This implies the

need for competencies in strategic and financial planning (Filbeck & Lee, 2000), sometimes missing in family-managed firms (Smyrnios & Walker, 2003). Hiring nonfamily-managers with previously developed capabilities can be a method of overcoming such a problem and running the company more successfully. Enrolling poorly educated family members in the management team may also lead to resentment on the part of senior nonfamily managers because they would not see tenure, merit and talent as requisite skills.

Finally, having nonfamily members in the management team increases the firms' social capital (Portes, 1998); this facilitates the acquisition of knowledge by promoting a constant flow of information from diverse sources (Blyler & coff, 2003) with positive effects on opportunity recognition. Coleman (1988) suggests that social relations reduce the amount of time and investment required to gather information, and Burt (1992) argues that this type of benefit increases as the social network increases. Not only can new information be accessed, but also any kind of new resource, thanks to nonfamily managers' social capital. They are able to make contact with new partners, who in turn share human, intellectual, and tangible resources to develop the business. The information base of nonfamily managers is expected to be different and higher than that of family managers, affecting opportunity recognition and exploitation (Shane, 2003).

To measure the relationship between family involvement in management and firm performance, the following hypotheses will be examined.

HYPOTHESES 2: There will be a positive relationship between FIM and firm performance in family firms.

4.3   Family control and firm performance

4.3.1 The relationship between family control and performance

Individual- and family controlled firms are the foremost example of the corporation modeled by Shleifer and Vishny (1986), one with a large shareholder and a fringe of small shareholders. In such a corporation, the classic owner-manager conflict described by Berle and Means (1932) or Jensen and Meckling (1976) (which is referred as Agency Problem I) is mitigated due to the large shareholder's greater incentives to monitor the manager (reference 3.1.1.1. chapter three).

However, a second type of conflict appears (Agency Problem II): The large shareholder may use its controlling position in the firm to extract private benefits at the expense of the small shareholders. As a result, the large shareholder's incentives for expropriating minority shareholders are small, but so are its incentives for monitoring the manager, and thus we revert to Agency Problem I. If, on the other hand, the large shareholder is an individual or a family, it has greater incentives for both expropriation and monitoring, which are thereby likely to lead Agency Problem II to overshadow Agency Problem I (reference 3.1.1.2 chapter three).

Which of these two agency problems is more detrimental to shareholder value? The evidence on this point is scant and inconclusive. Claessens et al. (2002) and Lins (2003) show that in East Asian economies, the excess of large shareholders' voting rights over cash flow rights reduces the overall value of the firm, albeit not enough to offset the benefits of ownership concentration. Cronqvist and Nilsson (2003) find that in Sweden it is cash flow ownership, not excess voting rights, that has a negative impact on value.

Villalonga and Amit (2006), find that family ownership creates value only when it is combined with certain forms of family *control* and management. Family control in excess of ownership is often manifested in the form of multiple share classes, pyramids, cross-holdings, or voting agreements.

These mechanisms reduce shareholder value, with the reduction in value being proportional to the excess of voting over cash flow rights. Family management adds

value when the founder serves as the CEO of the family firm or as its Chairman with a nonfamily CEO, but destroys value when descendants serve as Chairman or CEO. The interaction between family control and management also generates significant value differences across firms.

For instance, the negative impact ton value of control significantly reduces the founder premium. Despite this "control discount," however, minority shareholders are likely to be better or at least no worse off in a family firm than they would have been in a nonfamily firm. Founder-CEO firms with control-enhancing mechanisms are about 25% more valuable than nonfamily firms.

In descendant-CEO firms, control-enhancing mechanisms have a mildly positive impact on value. This positive impact suggests that the mechanisms play a different role in these firms or at least send a weaker signal to the market: If control-enhancing mechanisms are put in place by descendants, it may be perceived as a defensive move to counter the dilution of their ownership stake that would come with firm or family growth. If it is the founder who sets up such mechanisms, it may be seen as a more proactive move to appropriate private benefits of control. Nevertheless, non-family shareholders in descendant-CEO firms are worse off than they would have been in a non-family firm.

In the very recent study of Miller et al. (2009), family control is also taking into account. It is said that family business owners wish to maintain control of their firm to satisfy family objectives for wealth, employment security, status, and power for present and subsequent generations (Claessens et al., 2002). These owners may use their voting control to appropriate company assets for personal or family purposes. One purpose is simply to obtain resources in the form of perquisites, inflated compensation, and safe managerial positions (Schulze, Lubatkin, & Dino, 2003). Another is to have secure top executive posts for family members, despite any incompetence (Bennedsen et al., 2007; Volpin, 2002). A final family preference is to avoid risk, as most family funds are tied up in the business (Gómez-Mejía, Haynes, Nuñez-Nickel, Jacobson, & Moyano- Fuentes, 2007). This can lead to underinvestment in renewal (Miller & Le Breton-Miller, 2005).

To explore the control variable with firm performance, the following hypotheses are formulated.

HYPOTHESES 3a: Family firms with large shareholders (>50%) have a less positive effect on firm performance than family firms with smaller shareholders.

HYPOTHESES 3b: Family firms with large shareholders (>50%) led by founder CEO(s) have a less positive effect on firm performance than family firms with descendant CEO(s).

4.4   Family firm generations and performance

In this section, the topic generations will be approached through two angles. First, performance will be approached as the family business passes on to the next generation. So the impact of founders and descendants on firm performance will be taking into account. Second, the effect on performance will be investigated trough the investment in the continuity of the business trough generations.

4.4.1 Performance and family firm passing through generation

The results mentioned above, reported by Villalonge and Amit (2006), thus far do not distinguish between generations of family firms or family CEOs. However, earlier studies suggest that founders and descendants may have very different impacts on firm value (Morck et al., 1988; Perez-Gonzalez, 2001, etc.). This section will discuss these differences.

Villalonga and Amit (2006) examine the effects that founders and descendants have on the value of family firms when they occupy the position of CEO or Chairman of the Board.

In their research, they report results for different (six) combinations of founders, descendants, and hires in the roles of Chairman and CEO. Firms with a founder-CEO (and Chairman) have the highest corporate value. The value of firms in which the founder remains as Chairman but hires an outside CEO is almost as high, and not significantly different from the previous groups. When the founder remains as Chairman but is succeeded by a descendant in the role of CEO, the resulting corporate value is the lowest across all categories. The next-lowest value belongs to firms that have a descendant-Chairman and a descendant-CEO. The results confirm that founder-CEO firms are the most valuable of all (family and nonfamily firms), descendant-CEO firms are the least valuable, and family firms with a hired CEO are not significantly different in value from nonfamily.

The analyzation of the effects of different generations of descendants on firm value, by Villalonge and Amit (2006), have also find the following results. Their study, reports the effect of family firm generation, that is, the latest generation of family members that are

active in the firm as managers, directors, or blockholders, in relation to the founder. The results show that the positive value effect of family firms is entirely attributable to first-generation family firms. Second-generation firms are not significantly different from nonfamily firms. In the marginal contribution of later generations, there is no drop in value when one moves from second-generation family firms to third-generation firms or from third-generation firms to fourth-generation firms.

In line with the above mentioned studies, I would like to identify generational effects that may have an influence on firm performance by the following hypotheses

HYPOTHESES 4a*: Performance of family firms decreases over generations. First generation family firms show a more positive effect on performance than second or third+ generation.

HYPOTHESIS 4b*: Family firms with founder CEO(s) are associated with higher firm performance than firms with descendant-led firms and hired CEO(s).

4.4.2 Investment in the continuity of the business trough generations

Historians such as Fear (1997) and James (2006) argue that family businesses often put more into research and development than other businesses. They suggest that the managers of FOBs (family owned businesses) tend to have very long tenures and are thus concerned not so much with quarterly earnings but the long run continuity of the enterprise. This causes leaders to invest for the long run in *developing new products and technologies* (Danco, 1975; Gallo and Vilaseca, 1996; Weber et al., 2003).

Another concern of many FOBs is *reputation in the market*, as that too is a resource that enhances the very long-term robustness of a business (Barney, 1991; Eddleston et al., 2008; James, 2006; Morris et al., 1997). Reputation improves customer loyalty and attracts new clients; it also sustains market share during industry downturns and enhances the stability of the business (Fombrun, 1996). It is only natural, therefore, that a family's stewardship would translate into a more concerted effort to build reputation (Lyman, 1991). This can be done, in part, by doing more to disseminate specific factual information about the performance of the firm's products and services.

A final investment in the continuity of the business is in *building market share* – in more deeply penetrating existing markets or expanding into new ones, again to solidify the business for the future (see also Chadeau, 1993). Signs of such efforts might be the employment of different types of advertising and promotion vehicles, and the use of those devices in new markets to expand market scope. Again, these longer-term investments might be less attractive to an impatient single founder. While FOB owners are argued to care about the long-term future of other family members and their involvement in the business, many single owners who do not have family involved in the business embrace objectives of a shorter-term nature. Indeed, the latter often sell their businesses when the time is ripe and move on to a different venture (Zahra, 2003). There is less concern there that the business be able to support vocationally family members, now or for the future, and so less of an incentive to invest in the various stewardship initiatives (Gersick et al., 1997; Ward, 2004).

HYPOTHESES 4c: Family owned firms will display more stewardship over generations by making more future-oriented investments in research and development.

HYPOTHESES 4d: Family owned firms will display more stewardship over generations by making more future-oriented investments in reputation development.

HYPOTHESES 4e: Family owned firms will display more stewardship over generations by making more future-oriented investments in market share development.

4.5   Conclusion

Family ownership and firm performance in family businesses give different results concerning listed and nonlisted companies. Listed companies, partially converge toward positive effects of FIO on performance. Regarding nonlisted companies on the other hand, only three studies were conducted. All three studies couldn't find a significant relation between FIO and performance.

Concerning the results of family management and firm performance, a distinction between listed en nonlisted companies is made. Studies on listed companies give mixed

results. Positive, negative and no correlation was found. In these companies, a difference between founder as CEO and descendants could be found. Four studies investigated the relationship between FIM and firm performance in nonlisted companies. Nonlisted companies also give different results. The study of Sciascia and Mazzola (2008) found a negative quadratic relationship.

The presence of family control mechanisms could affect the Firm performance negatively. This affect is different when we look at founding-family firms, descendant-family firms and hired CEOs in family firms.

CHAPTER 5: METHODOLOGY

Chapter five starts with the research methodology. We first describe the definition of family firms used in this thesis. Next, data collection, measures and formulas will be illustrated.

5.1 Research method

5.1.1 Definition family firm

The choice of a definition has important implications for the way data is collected. The definition of family firms used for this thesis is based on the study of Chua et al. (1999) who give a review of the literature on the definitions of a family firm. The definitions in their study touch on the degree or nature of family involvement (Exhibit 1). The definitions can be grouped into three categories based on combinations of ownership and management. The first category includes family firms who are family owned and family managed (>50%). This group is generally regarded as a family firm by many researchers with very little disagreement. For this reason, we define the first category as a family firm in this thesis. On the other two categories, there is more disagreement. The second group consists of businesses who are family owned but not family managed. Within this second group, only those firms who identify themselves as a family firm are considered to be family businesses. For the third category, firms who are family managed but not family owned, two additional conditions were included to consider a firm as a family business: (1) the sample respondent defines the firm as family business and (2) the majority of the shares is held by an investment company or venture capitalist. This condition was included to distinguish between an investment company who wishes to leave the business at a specific moment so the majority of the shares returns to the family and other permanent shareholders.

5.1.2 Sample

The empirical data used in this thesis originate from a study for the Institute of family businesses in April 2003 by Prof. dr. Wim Voordeckers and Prof. dr. Anita Van Gils. The

data is based on a survey of a representative sample of Flemish family firms. The study has attempted to assess to what extent good functioning Boards are present in Flemish family firms and to what extent there is attention for governance. The number of respondents for this research was two hundred ninety-five firms.

From this database, a new database was created with the variables that apply for this thesis. The new database consists of 260 observations of Flemish family firms. After removing cases with missing values (1,3 percent), of the 245 valid observations, 205 observations (83,8 percent) were family-owned and managed, 34 (13,6 percent) family-owned but not family-managed and 3 (1,3 percent) in hands of non-family managers. The family firms of this sample vary from small, medium-sized to large family businesses. The database has a mean of 38,73 employees (min=2, max=485 employees).

The development phase of a firm consist of the start phase, growth phase, majority phase and the consolidation phase. If we look at the development phase of this database, we noticed that the majority, 126 (50,4 percent) family firms are in their maturity phase. The growth phase is the second largest phase of the database with 88 (35, 2 percent) family firms. The consolidation phase on the other hand counts for 36 (14,4 percent) Flemish family firms. In this dataset, there were no companies in the first phase (growth phase).
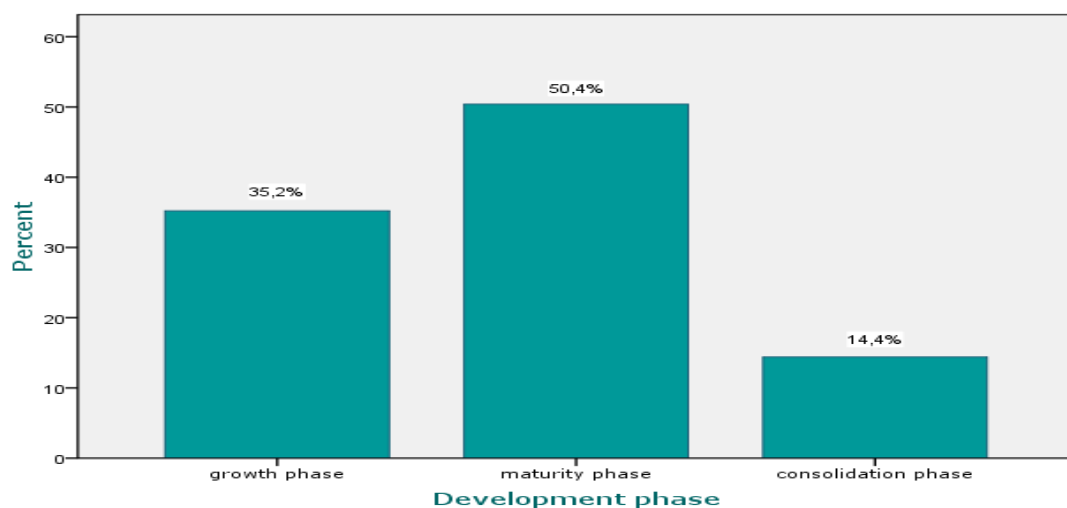
Figure 12: Development phase of the database

Source: own creation based on our sample

Given the familial nature of this data, another way had to be found to collect financial data. Data collection for performance measurements were drawn from the Bel-First database (Bureau van Dijk). Bel-First contains comprehensive financial information on more than 330 000 Belgian companies who have filed their accounts in the last ten years.

All variables used in the study are derived from this database exclusive the variables that measure the performance which are contained from the Bel-First database.

5.1.3 Measures

5.1.3.1 Dependent variable

Firm performance is the dependent variable of this study. Performance consists of different dimensions that can take different forms. Return on equity, return on investment and return on assets are among the many concepts that are used in practice (e.g. Anderson and Reeb, 2003). These concepts have in common that they are all return conceptions who indicate the relationship between results and the therefore required capacity. Therefore, this study will use the firm's net return on assets (NROA) and net return on equity (NROE) as the dependent variable. We will also include the ROA growth and ROA mean as the dependent variable in order to extend and obtain a more accurate research.

We define:

NROA (2003):	The net income of total assets before taxes and financial charges.
NROE (2003):	The net income after-tax divided by the book value.
ROA GROWTH:	(ROA 2003 – ROA 2002) / ROA 2002
ROA MEAN:	(ROA 2003 + ROA 2002) / 2

5.3.1.2   Independent variable

A. Ownership

The variable family involved ownership was measured using the number of family members with shares, testing *hypothesis 1a*.

We define:

FIO: Number of family members with shares.

FIO squared: Number of family members with shares².

For *hypothesis 1b*, analyzing family firms with sole-ownership having a less positive effect on firm performance than family-owned firms, we created new dummy variables. A first distinction between 'family managers and family members not participating in the management' and 'non-family members' had to be made. These two dummy variables were created in order to separate sole-ownership and firms who are family-owned. Because the database shows very little data about outsider-ownership, this category was disregarded.

We define:

SOLE-OWNERSHIP: Dummy variable if the number of family members with shares = 1 and the firm member is a family manager and/or a family member not participating in the management.

FAMILY-OWNED: Dummy variable if the number of family members with shares > 1 and the firm member is a family manager and/or a family member not participating in the management.

B. Management

The hypothesis that investigates the relationship between management and performance is as follows: There will be a positive relationship between family involved management (FIM) and firm performance. Family involved management was measured using the percentage of firm's managers who are also family members.

We define:

FAMILY INVOLVED MANAGAGMENT: The percentage of family owned managers calculated by the number of family members who are part of the management team divided by the number of members of the management team.

C. Control

To investigate the relationship between family control and performance, two hypotheses were constructed. On one hand, there is the hypothesis 'Family firms with large shareholders (>50%) have a less positive impact on firm performance than family firms with smaller shareholders'. On the other hand, the hypothesis 'Family firms with large shareholders (>50%) led by founder CEO(s) have a less positive effect on firm performance than family firms with descendant (or outside) CEO(s)'. In order to test the first hypothesis, we looked at the relationship between family firms with large shareholders and firm performance. A large shareholder is defined as a person who owns more than 50% of the shares. For the first hypothesis, we define the following dummy variable:

LARGE SHAREHOLDERS (>50%):   A large shareholder is defined as 1 if a person owns more than 50% of the shares, 0 otherwise.

To incorporate the second hypothesis, we generated a cross tab. In order to make this cross tab, we first created three dummy variables. These dummy variables refer to which generation the CEO(s) belongs to.

We define:

FOUNDER – CEO: Is a dummy variable if CEO = 1, 0 otherwise.

DESCENDANT – CEO: Is a dummy variable if CEO = 2, 0 otherwise.

OUTSIDE – CEO: Is a dummy variable if CEO = 3, 0 otherwise.

The next step was the creation of the cross tab (table 2). This tab displays the joint distribution of the CEO generation and the large shareholder(s) for their performance. The three dummy variables, mentioned above, made the distinction regarding to which generation the CEO belongs to. The large shareholder on the other hand, is defined as 1 if a person owns more than 50% of the shares, 0 otherwise.

$X_1 =$ Is a dummy variable if the CEO is a founder and owns more than 50% of the shares.

$X_2 =$ Is a dummy variable if the CEO is a founder and owns less than 50% of the shares.

$X_3 =$ Is a dummy variable if the CEO is a descendant and owns more than 50% of the shares.

$X_4 =$ Is a dummy variable if the CEO is a descendant and owns less than 50% of the shares.

$X_5 =$ Is a dummy variable if the CEO is an outsider and owns more than 50% of the shares.

$X_6 =$ Is a dummy variable if the CEO is an outsider and owns less than 50% of the shares.

Table 2: Cross tab: CEO generation and the large shareholder(s) for their performance

	Founder – CEO	Descendant - CEO	Outsider – CEO
A person owns more than 50% = 1	X_1, Performance	X_3, Performance	X_5, Performance
A person owns more than 50% = 0	X_2, Performance	X_4, Performance	X_6, Performance

Source: own creation

D. Generation

The topic generations is approached through two perspectives. The first perspective approaches performance as the family business passing on to the next generation. For *hypothesis 4a*, g*enerational effects* are measured by asking the respondent for the generation that is currently managing the firm. The variable is recoded into dummy variables with categories first, second and third or higher generation. The first generation serves as the reference category. Testing *hypothesis 4b*, CEO is measured by making distinction between CEO generation. The CEO variable is recoded into dummy variables, mentioned above, with categories founder, descendant and outside CEO, whereby founder is used as the reference category.

We define:

GEN_1:   Is a dummy variable if generation = 1, 0 otherwise.

GEN_2:   Is a dummy variable if generation = 2, 0 otherwise.

GEN_MORE: Is a dummy variable if generation = 3 or more, 0 otherwise.

The second perspective focuses on performance and investment in the continuity of the business through *generations*. Three hypotheses were created in order to investigate this perspective. The above mentioned dummy variables concerning generational effects are used as the dependent variable in these hypotheses. This is because the mission is to explore the relationship of investments through *generations* and not the performance. By doing so, a more clear view about the family firms internal operations can be obtained. Research and development (R&D), firm reputation and market share are the variables used in order to test the investment in the continuity through generations. *Research and development* can be measured in several ways. In our thesis, we measure R&D by five different criteria's.

We define:

R&D_1:   There are almost no R&D activities undertaken in your principal industry.

R&D_2:   Top managers place great accent on R&D, technological leadership and innovation.

R&D_3:   The company has launched many new products and/or services in the last five years.

R&D_4:   The objectives of the company of being innovative.

R&D_5:   The objectives of the company for marketing a unique product and/or service to the market.

In order to capture the effect of firm reputation on generations, we define reputation as follow:

REPUTATION: Declares the importance of company reputation in a family firm.

For the third hypothesis, two variables are used to measure the market share effect on generation.

We define:

MARKETSHARE_1:   Advice on future markets, products and investments

MARKETSHARE_2:   Detection of new markets.

5.1.3.3   Control variable

Several control variables are included in this thesis. Firm size, development stage, industry and the level of internationalization were adopted in the regression models. As earlier mentioned, no firm within its start phase is present in the database. Variables representing the development stage and industry were controlled using dummy coding. Growth phase and Industry_1 are the suppressed categories.

We define:

Firm size: Measured by the number of employees in the family firm.

Level of internationalization: Measured by the percentage of sales generated from international markets in 2003.

Growth phase: Is a dummy variable if growth phase is 1, 0 otherwise

Maturity phase: Is a dummy variable if maturity phase is 1, 0 otherwise.

Consolidation phase: Is a dummy variable if consolidation phase is 1, 0 otherwise.

Industry 1:   Is a dummy variable for manufacturing firms

Industry 2:   Is a dummy variable for manufacturing firms

Industry 3:   Is a dummy variable for manufacturing firms.

Industry 4:   Is a dummy variable for manufacturing firms.

Industry 5:   Is a dummy variable for manufacturing firms.

5.1.3 Formulas

5.1.3.1 OWNERHSIP

<u>HYPOTHESIS 1a</u>

Firm performance decreases with increasing family involvement in ownership (FIO), thus arriving at an inverted-U-shaped relationship.

PERFORMANCE = β_0 + β_1FIO + β_2FIO² +β_3FIRMSIZE + β_4INTERNATIONALIZATION + β_5MATUR_STAGE + β_6CONSOL_STAGE + β_7INDUSTRY2 + β_8INDUSTRY3 + β_9INDUSTRY4 + β_{10}INDUSTRY5

<u>HYPOTHESIS 1b</u>

Family firms with sole-ownership will have a less positive effect on firm performance than family owned firms.

PERFORMANCE = β_0 + β_1FOUNDER + β_2DESCENDANT

Using independent sample T test

5.1.3.2 MANAGEMENT

<u>HYPOTHESIS 2</u>

There will be a positive relationship between FIM and firm performance.

PERFORMANCE = α + β_1FIM + β_2FIRMSIZE + β_3INTERNATIONALIZATION + β_4MATUR_STAGE + β_5CONSOL_STAGE + β_6INDUSTRY2 + β_7INDUSTRY3 + β_8INDUSTRY4 + β_9INDUSTRY5

5.1.3.3 CONTROL

<u>HYPOTHESIS 3a</u>

Family firms with large shareholders (>50%) have a less positive effect on firm performance than family firms with smaller shareholders.

PERFORMANCE = α + β1LARGE_SHARHOLDER + β2FIRMSIZE + β3INTERNATIONALIZATION + β4MATUR_STAGE + β5CONSOL_STAGE + β6INDUSTRY2 + β7INDUSTRY3 + β8INDUSTRY4 + β9INDUSTRY5

<u>HYPOTHESIS 3b</u>

Family firms with large shareholders (>50%) led by founder CEO(s) have a less positive effect on firm performance than family firms with descendant CEO(s).

PERFORMANCE = α + β1X1 + β2X2 + β3X3 + β4X4 + β5X5 + β6X6 + β7FIRMSIZE + β8INTERNATIONALIZATION + β9MATUR_STAGE + β10CONSOL_STAGE + β11INDUSTRY2 + β12INDUSTRY3 + β13INDUSTRY4 + β14INDUSTRY5

5.1.3.4 GENERATIONS

<u>HYPOTHESIS 4a</u>

Performance of family firms decreases over generations. First generation family firms show a more positive effect on performance than second or third+ generation.

PERFORMANCE = β0 + β1GEN_2 + β2GEN_MORE +β3FIRMSIZE + β4INTERNATIONALIZATION + β5MATUR_STAGE + β6CONSOL_STAGE + β7INDUSTRY2 + β8INDUSTRY3 + β9INDUSTRY4 + β10INDUSTRY5

HYPOTHESIS 4b

Family firms with founder CEO(s) are associated with higher firm performance than firms with descendant-led firms and hired CEO(s).

PERFORMANCE = $\beta 0$ + $\beta 1$DESCENDANT + $\beta 2$OUTSIDER + $\beta 3$FIRMSIZE + $\beta 4$INTERNATIONALIZATION + $\beta 5$MATUR_STAGE + $\beta 6$CONSOL_STAGE + $\beta 7$INDUSTRY2 + $\beta 8$INDUSTRY3 + $\beta 9$INDUSTRY4 + $\beta 10$INDUSTRY5

HYPOTHESIS 4c

Family owned firms will display more stewardship over generations by making more future-oriented investments in research and development.

GENERATION = α + $\beta 1$R&D_1 + $\beta 2$R&D_2 + $\beta 3$R&D_3 + $\beta 4$R&D_4 + $\beta 5$R&D_5

Using ANNOVA, multiple comparison

HYPOTHESIS 4d

Family owned firms will display more stewardship over generations by making more future-oriented investments in reputation development.

GENERATION = α + $\beta 1$REPUTATION

Using ANNOVA, multiple comparison

HYPOTHESIS 4e

Family owned firms will display more stewardship over generations by making more future-oriented investments in market share development.

GENERATION = α + $\beta 1$MARKETSHARE_1 + $\beta 2$MARKETSHARE_2

Using ANNOVA, multiple comparison

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

The sixth chapter discusses the results of the empirical research. We start with the descriptive statistics for the quantitative variables, followed by the category variables. Next, hypotheses are tested using the linear regression, independent samples T test and ANOVA (multiple comparison).

6.1 Interpretation of the results

Table 3 and 4 present the descriptive statistics of the variables included in our study. The average number of employees in our thesis is 38,73 with a standard deviation of 67,40. The mean FIO and FIM counts respectively 2,86 and 82,76 percent. Since our database consists of many negative amounts, concerning the performance measurements, the ROA and ROE have a low average of respectively 6,22 and 5,21.

Table 3: Descriptive statistics

Variables	Mean	Median	St. Dev.	Min	Max
FIRM SIZE (number of employees)	38,73	17,00	67,40	2,00	485,00
FIO (number of family members with shares)	2,86	2,00	2,09	0,00	22,00
FIM (percentage)	82,76	100	29,65	0,00	100
ROA	6,22	5,00	11,14	- 85,00	56,00
ROE	5,21	6,00	22,67	- 139,00	104,00
ROA GROWTH	- 0,12	0,00	1,81	- 15,50	8,00
ROA MEAN	5,91	5,00	7,72	- 38,50	35,00

Source: own creation

All variables (except marketshare_2) used to measure the generation hypotheses were category variables. Respondents were asked to indicate on a five point scale, to which extent they agreed concerning the variables shown in table 5 (totally disagree=1 –

totally agree=5). The variables RD_4 till marketshare_2 show a rather degree of agreement while the first three variables show an average score.

Table 4: Descriptive statistics of Category variables

Variables	Mean	Median	St. Dev.
RD_1	2,90	3,00	1,30
RD_2	2,79	3,00	1,14
RD_3	2,83	3,00	1,23
RD_4	3,63	4,00	1,01
RD_5	3,53	4,00	1,24
REPUTATION	3,63	4,00	1,64
MARKETSHARE_2	3,42	4,00	1,08
MARKETSHARE_1(%)	37,19	35,00	20,01

Source: own creation

Table 5 is the percentage display of the remaining variables included in our thesis. Our database consist largely of family firms in their maturity phase with a percentage of 50,4 followed by the growth (35,2%) and consolidation phase (14,4%). Regarding the CEO, the database counts most of descendant CEO with a percentage of 68,5; followed by founder CEO with a much lower percentage of 29,2. The lowest rate for CEO is the outside CEO (2,30 percent). Other important factors to note are the sole – ownership versus family – owned and the generation effects. The percentages of the former variables are respectively 14,3% and 85,7% and the generation effects are respectively 20,0; 49,2; 26,8 percent for the first, second and third+ generations in our dataset.

Table 5 – Percent distributions of firms in the sample

Variable	Percent distribution
Life cycle stage	
Growth phase	35,2 percent
Maturity phase	50,4 percent
Consolidation phase	14,4 percent
Level of internationalization	
0%	40,3 percent
1-25%	36,0 percent
26-50%	8,90 percent
51-75%	6,20 percent
76-99%	7,80 percent
100%	0,80 percent
CEO	
Founder	29,2 percent
Descendant	68,5 percent
Outsider	2,30 percent
GENERATION	
Gen 1	24,0 percent
Gen 2	49,2 percent
Gen 3+	26,8 percent
LARGE SHAREHOLDER	
> 50 %	46,8 percent
< 50 %	53,2 percent
X1	12,7 percent
X2	36,2 percent
X3	1,90 percent
X4	14,2 percent
X5	30,0 percent
X6	0,40 percent
OWNERSHIP	
Sole – ownership	14,3 percent
Family – owned	85,7 percent
INDUSTRY	
Industry 1	31,9 percent
Industry 2	15,0 percent
Industry 3	18,5 percent
Industry 4	16,5 percent
Industry 5	18,1 percent

The hypotheses contained in this thesis are tested using the linear regression and for one hypotheses the independent samples T test. The last three hypotheses, concerning the future oriented investments through business generations, are tested with ANOVA. The regression results and bivariate correlations are listed in the following tables. We tested for multicollinearity by calculating the Variance Inflation Factors. No VIF factor exceeded the value 10 which indicates that multicollinearity is not a problem in our regressions. Even no value rose above the value 2 except FIO (VIF=4,930) and its squared variable

(VIF=4,722) and the variables that were used to test *hypothesis 3b*, excluding X_3 (VIF X_1=3, VIF X_2=6, VIF X_4=3, VIF X_5=5).

Table 6a – OLS estimation of hypothesis 1a

Variables	Model 1	Model 2	Model 3	Model 4
Ownership characteristics				
FIO	0,699	1,750	0,051	-0,767
	(0,809)	(2,244)	(0,131)	(0,538)
FIO²	-0,023	-0.051	-0,003	0,050
	(0,047)	(0,130)	(0,008)	(0,031)
Control variables				
Firm size	-0,006	-0.047	0,002	-0,004
	(0,013)	(0.035)	(0,002)	(0,008)
L_internationalization	-0,547	3,174	-0,085	0,205
	(0,707)	(1,978)	(0,115)	(0,474)
Matur_stage	-0,997	-4,147	-0,027	-0,905
	(1,752)	(4,862)	(0,283)	(1,164)
Consol_stage	-0,208	-1,609	0,032	-2,510
	(2,420)	(6,725)	(0,393)	(1,605)
Industry_2	0,249	9,254	0,132	0,350
	(2,791)	(7,673)	(0,444)	(1,848)
Industry_3	2,173	14,914**	-0,095	-0,058
	(2,337)	(6,474)	(0,375)	(1,548)
Industry_4	-0,820	6,677	0,161	-0,741
	(2,465)	(6,860)	(0,401)	(1,633)
Industry_5	-1,615	9,909	0,067	1,112
	(2,276)	(6,375)	(0,370)	(1,524)
Constant	5,001	-8,307	-0,159	7,687***
	(3,068)	(8,471)	(0,497)	(2,030)
R²	0,021	0,044	0,010	0,029
Adj R²	-0.023	0,000	-0,034	-0,015
F value	0,474	0,981	0,235	0,651

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 6b: Correlation table of hypothesis 1a

		ROA	ROE	ROA_GROW TH	ROA_MEAN	FIO	FIO2	FIRM_SIZE	L_INTER NATIO NALIZA TION	GROW TH_PHASE	MATUR _PHAS E	CONS OL_PHASE	INDUS TRY 1	INDUS TRY 2	INDUS TRY 3	INDUS TRY 4	INDUS TRY 5
ROA	Pearson Correlation	1,000															
	Sig. (2-tailed)																
	N	2,570 E2															
ROE	Pearson Correlation	,725	1,000														
	Sig. (2-tailed)	,000															
	N	250	2,500 E2														
ROA_GROW TH	Pearson Correlation	,192	-,055	1,000													
	Sig. (2-tailed)	,002	,384														
	N	257	250	2,600 E2													
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000												
	Sig. (2-tailed)	,000	,001	,017													
	N	256	250	256	2,560 E2												
FIO	Pearson Correlation	,036	,031	,020	-,027	1,000											
	Sig. (2-tailed)	,569	,631	,753	,672												
	N	247	240	250	246	2,500 E2											
FIO2	Pearson Correlation	,020	,021	,002	,030	,881	1,000										
	Sig. (2-tailed)	,752	,751	,981	,645	,000											
	N	247	240	250	246	250	2,500 E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	,250	,156	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,000	,015										
	N	252	245	255	251	245	245	2,550 E2									
L_INTER NATIO NALIZA TION	Pearson Correlation	-,067	,036	-,043	,007	,083	,081	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,195	,204	,000									
	N	255	248	258	254	248	248	253	2,580 E2								
GROW TH_PHASE	Pearson Correlation	,017	,027	-,002	,058	-,069	-,084	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,284	,192	,764	,335								
	N	247	240	250	246	241	241	246	248	2,500 E2							
MATUR _PHAS E	Pearson Correlation	-,031	-,034	-,004	-,009	,048	,056	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,456	,385	,509	,422	,000							
	N	247	240	250	246	241	241	246	248	250	2,500 E2						
CONS OL_PHASE	Pearson Correlation	,022	,011	,008	-,066	,025	,034	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,699	,600	,598	,865	,000	,000						
	N	247	240	250	246	241	241	246	248	250	250	2,500 E2					
INDUS TRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	,085	,084	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,181	,185	,012	,000	,245	,089	,402					
	N	257	250	260	256	250	250	255	258	250	250	250	2,600 E2				
INDUS TRY_2	Pearson Correlation	,017	,005	,024	,005	-,049	-,045	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,436	,481	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	250	250	255	258	250	250	250	260	2,600 E2			
INDUS TRY_3	Pearson Correlation	,103	,120	-,023	,007	-,018	-,040	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,782	,527	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	250	250	255	258	250	250	250	260	260	2,600 E2		
INDUS TRY_4	Pearson Correlation	-,025	-,023	,025	-,040	-,096	-,070	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,132	,269	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	250	250	255	258	250	250	250	260	260	260	2,600 E2	
INDUS TRY_5	Pearson Correlation	-,050	,057	,007	,068	,052	,047	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,410	,462	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	250	250	255	258	250	250	250	260	260	260	260	2,600 E2

To test the hypothesis, that the relationship between family involved ownership (FIO) and performance is an inverted U-shape (*hypothesis 1a*), we included both FIO and its squared term in the regressions. An inverted-U-shaped relationship would have been supported if the FIO beta coefficient had been significantly positive and the FIO squared beta coefficient had been significantly negative.

This result applied in our regression analysis for the first three models show a positive FIO beta coefficient and a negative FIO squared beta coefficient in table 6a. If we look at the t-statistics (beta/St. error) we see that these values, as well as the beta coefficients of FIO and the FIO squared, are less than one. This indicates that we cannot reject the null hypothesis which indicates that *hypothesis 1a* is not supported. Model (4) indicates an opposite effect of the hypothesis we formulated. This is the only model whereby the t-statistics is larger than 1. But since none of the beta coefficients were statistical significant, the hypothesis is not supported by our results.

Table 6c – Independent samples T test of hypothesis 1b

	Sole-ownership	Family-owned	Difference	
Mean	0,6471	5,9350	-5,28794	
Std. Error	23,68337	7,64480	4,06166	
N	34	200		

F value	Sig.	T	Df	Sig (2-tailed)	95% confidence interval	
					Lower	Upper
16,107	0,000	-2,501	232	0,013	-9,45376	-1,12213

In order to test *hypothesis 1b*, family firms with sole-ownership will have a less positive effect on firm performance than family-owned firm, we executed the independent samples T test in table 6c. In comparison to the sole-ownership firms (0,6471), family–owned firms have a higher average performance (5,9350). Given the negative mean difference, we conclude that this result is in support of *hypothesis 1b* and confirms the findings of Fiegener (2010) on the locus of ownership and family involvement in small

private firms. Fiegener (2010) argues that there are significant differences between family-owned and sole-ownership firms, and therefore deserve special mention.

Table 7a: OLS estimation of hypothesis 2

Variables	Model 1	Model 2	Model 3	Model 4
Management characteristic				
FIM	5,708*	-1,702	0,532	0,538
	(2,907)	(8,230)	(0,473)	(1,988)
Control variables				
Firm size	0,008	-0,035	0,003	-0,005
	(0,013)	(0,035)	(0,002)	(0,009)
L_internationalization	-0,448	2,473	-0,067	0,126
	(0,674)	(1,892)	(0,110)	(0,458)
Matur_stage	-0,903	-3,258	-0,025	-0,724
	(1,706)	(4,770)	(0,276)	(1,154)
Consol_stage	0,636	-0,678	0,087	-1,888
	(2,353)	(6,597)	(0,383)	(1,590)
Industry_2	0,088	8,301	0,138	-0,160
	(2,620)	(7,262)	(0,419)	(1,766)
Industry_3	2,474	15,409**	-0,034	0,024
	(2,281)	(6,374)	(0,370)	(1,538)
Industry_4	-1,111	6,680	0,154	-0,797
	(2,441)	(6,864)	(0,398)	(1,648)
Industry_5	-1,252	10,863*	0,088	1,135
	(2,248)	(6,341)	(0.366)	(1,531)
Constant	1,030	-2,534	-0,595	5,693**
	(3,774)	(10,511)	(0,615)	(2,551)
R²	0,035	0,038	0,015	0,014
Adj R²	-0,004	-0,001	-0,024	-0,025
F value	0,904	0,970	0,378	0,353

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression also includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 7b: Correlation table of hypothesis 2

		ROA	ROE	ROA_GROWTH	ROA_MEAN	FIM	FIRM_SIZE	L_INTERNATIONALIZATION	GROWTH_PHASE	MATUR_PHASE	CONSOL_PHASE	INDUSTRY_1	INDUSTRY_2	INDUSTRY_3	INDUSTRY_4	INDUSTRY_5
ROA	Pearson Correlation	1,000														
	Sig. (2-tailed)															
	N	2,570 E2														
ROE	Pearson Correlation	,725	1,000													
	Sig. (2-tailed)	,000														
	N	250	250,000													
ROA_GROWTH	Pearson Correlation	,192	-,055	1,000												
	Sig. (2-tailed)	,002	,384													
	N	257	250	2,600 E2												
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000											
	Sig. (2-tailed)	,000	,001	,017												
	N	256	250	256	2,560 E2											
FIM	Pearson Correlation	,123	,004	,048	,017	1,000										
	Sig. (2-tailed)	,052	,944	,444	,795											
	N	251	244	254	250	2,540 E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	-,393	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,000										
	N	252	245	255	251	249	2,550 E2									
L_INTERNATIONALIZATION	Pearson Correlation	-,067	,036	-,043	,007	-,222	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,000	,000									
	N	255	248	258	254	253	253	2,580 E2								
GROWTH_PHASE	Pearson Correlation	,017	,027	-,002	,058	,006	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,930	,764	,335								
	N	247	240	250	246	245	246	248	2,500 E2							
MATUR_PHASE	Pearson Correlation	-,031	-,034	-,004	-,009	,042	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,515	,509	,422	,000							
	N	247	240	250	246	245	246	248	250	2,500 E2						
CONSOL_PHASE	Pearson Correlation	,022	,011	,008	-,066	-,067	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,300	,598	,865	,000	,000						
	N	247	240	250	246	245	246	248	250	250	2,500 E2					
INDUSTRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	-,068	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,277	,012	,000	,245	,089	,402					
	N	257	250	260	256	254	255	258	250	250	250	2,600 E2				
INDUSTRY_2	Pearson Correlation	,017	,005	,024	,005	-,030	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,630	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	254	255	258	250	250	250	260	2,600 E2			
INDUSTRY_3	Pearson Correlation	,103	,120	-,023	,007	,062	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,327	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	254	255	258	250	250	250	260	260	2,600 E2		
INDUSTRY_4	Pearson Correlation	-,025	-,023	,025	-,040	,129	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,040	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	254	255	258	250	250	250	260	260	260	2,600 E2	
INDUSTRY_5	Pearson Correlation	-,050	,057	,007	,068	-,077	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,222	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	254	255	258	250	250	250	260	260	260	260	2,600 E2

Table 7a shows that family involved management (p = 0,052) is significant positively related to firm performance expressed in ROA. The R² although is very low and the adj. R² on the other hand is even negative. When we look at the formula of the adj. R², mathematically this happens when the regressors, taken together, reduce the sum of squared residuals by such a small amount that this reduction fails to offset the factor (n-1)/(n-k-1). Since the adj. R² is negative, and is a modified version of the R², we take the R² to explain the fit of the regression. The regression R² explains 3,5% of the sample variance of the performance measure ROA. This value is quite low, which can be a result of including the control variables into the regression. To ascertain this, we made a separate regression excluding the control variables. As you can see in table 7b, the F value became suddenly significant at 10 percent level (sign. 0,052). Although there isn't much difference in the Adj. R², we do see that in this regression model, it is increased.

Table 7c: Regression analysis excluding the control variables of hypothesis 2

Variables	Model 1	Model 2	Model 3	Model 4
FIM	4,755* (2,437)	0,478 (6,841)	0,298 (0,389)	0,440 (1,690)
R²	0,015	0,000	0,002	0,000
Adj. R²	0,11	-0,004	-0,002	-0,004
F value	3,806*	0,005	0,588	0,068

As conclusion we can say that FIM is significant for model (1) but we have to take into account that the R² is very low. The regression line of the performance ROA is now explained by 11%. We can only assume that there is an small indication of a positive relationship between FIM and performance. Taking this into account, we support *hypothesis 2*.

The control variable (LARGE_SHAREHOLDER) to test *hypothesis 3a* is not statistically significant for any performance measurements, therefore this hypothesis is not supported.

Table 8a: OLS estimation of hypothesis 3a

Variables	Model 1	Model 2	Model 3	Model 4
Control characteristic				
LARGE_SHAREHOLDER	-1,329	-1,047	0,243	0,753
	(1,651)	(4,621)	(0,265))	(1,737)
Control variables				
Firm size	-0,004	-0,036	0,003	-0,004
	(0,013)	(0,035)	(0,002)	(0,008)
L_internationalization	-0,603	2,792	-0,107	0,137
	(0,719)	(2,017)	(0,116)	(0,484)
Matur_stage	-0,544	-2,935	-0,024	-0,922
	(1,794	(4,995)	(0,289)	(1,201)
Consol_stage	0,676	-0,434	0,040	-2,005
	(2,430)	(6,770)	(0,393)	(1,623)
Industry_2	0,079	9,438	0,050	-0,096
	(2,777)	(7,667)	(0,441)	(1,850)
Industry_3	2,451	15,786**	-0,071	-0,041
	(2,352)	(6,543)	(0,379)	(1,568)
Industry_4	-0,861	6,930	0,117	-0,574
	(2,524)	(7,066)	(0,409)	(1,684)
Industry_5	-1,637	10,907*	0,048	1,023
	(2,310)	(8,499)	(0,374)	(1,557)
Constant	6,924***	-4,402	-0,132	5,797***
	(2,597)	(7,208)	(0,419)	(1,737)
R²	0,021	0,039	0,013	0,014
Adj R²	-0,019	-0,002	-0,027	-0,026
F value	0,537	0,948	0,328	0,347

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression also includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 8b: Correlation table of hypothesis 3a

		ROA	ROE	ROA_GROWTH	ROA_MEAN	LARGE_SHAREHOLDER	FIRM_SIZE	L_INTERNATIONALIZATION	GROWTH_PHASE	MATUR_PHASE	CONSOL_PHASE	INDUSTRY_1	INDUSTRY_2	INDUSTRY_3	INDUSTRY_4	INDUSTRY_5
ROA	Pearson Correlation	1,000														
	Sig. (2-tailed)															
	N	2,570 E2														
ROE	Pearson Correlation	,725	1,000													
	Sig. (2-tailed)	,000														
	N	250	2,500 E2													
ROA_GROWTH	Pearson Correlation	,192	-,055	1,000												
	Sig. (2-tailed)	,002	,384													
	N	257	250	2,600 E2												
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000											
	Sig. (2-tailed)	,000	,001	,017												
	N	256	250	256	2,560 E2											
LARGE_SHAREHOLDER	Pearson Correlation	-,047	,008	,039	,045	1,000										
	Sig. (2-tailed)	,467	,901	,546	,481											
	N	245	238	248	244	2,480 E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	-,188	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,003										
	N	252	245	255	251	243	2,550 E2									
L_INTERNATIONALIZATION	Pearson Correlation	-,067	,036	-,043	,007	,003	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,962	,000									
	N	255	248	258	254	246	253	2,580 E2								
GROWTH_PHASE	Pearson Correlation	,017	,027	-,002	,058	-,147	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,023	,764	,335								
	N	247	240	250	246	239	246	248	2,500 E2							
MATUR_PHASE	Pearson Correlation	-,031	-,034	-,004	-,009	,098	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,130	,509	,422	,000							
	N	247	240	250	246	239	246	248	250	2,500 E2						
CONSOL_PHASE	Pearson Correlation	,022	,011	,008	-,066	,057	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,380	,598	,865	,000	,000						
	N	247	240	250	246	239	246	248	250	250	2,500 E2					
INDUSTRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	-,069	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,282	,012	,000	,245	,089	,402					
	N	257	250	260	256	248	255	258	250	250	250	2,600 E2				
INDUSTRY_2	Pearson Correlation	,017	,005	,024	,005	,106	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,094	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	248	255	258	250	250	250	260	2,600 E2			
INDUSTRY_3	Pearson Correlation	,103	,120	-,023	,007	,010	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,875	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	248	255	258	250	250	250	260	260	2,600 E2		
INDUSTRY_4	Pearson Correlation	-,025	-,023	,025	-,040	-,004	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,952	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	248	255	258	250	250	250	260	260	260	2,600 E2	
INDUSTRY_5	Pearson Correlation	-,050	,057	,007	,068	-,022	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,730	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	248	255	258	250	250	250	260	260	260	260	2,600 E2

In order to analyse the subsequent *hypothesis 3b*, we conducted a regression analysis and correlation table with cross tabs. The correlation table 8d shows that only the dummy variable X_4 (is a dummy variable if the CEO is a descendant and owns less than 50% of the shares) has a significant influence on the performance measurement ROE. This means that only family firms with a descendant CEO who do not own more than 50% of the shares have an impact on performance (only for ROE). But when we look at the regression analysis table 8c, we see that the variable X_4 is not significant at any level. Besides, if we look at the R^2 (0,057) and the adj. R^2 (0,002) we see that these values are very low. So based on these values, we conclude that *hypothesis 3b* is not supported.

Table 8c: OLS estimation of hypothesis 3b

Variables	Model 1	Model 2	Model 3	Model 4
Control characteristics				
X_1	-1,628	-3,083	-0,020	-1,390
	(4,156)	(11,408)	(0,672)	(2,779)
X_2	-0,735	2,351	-0,380	-2,032
	(3,827)	(10,448)	(0,618)	(2,559)
X_3	-0,487	6,784	-0,727	-1,156
	(6,721)	(18,339)	(1,086)	(4,493)
X_4	-4,326	9,443	-0,375	-2,323
	(4,121)	(11,343)	(0,667)	(2,768)
X_5	-1,268	-4,529	0,118	-0,504
	(3,876)	(40,599)	(0,626)	(2,592)
Control variables				
Firm size	-0,004	-0,044	0,003	-0,004
	(0,013)	(0,035)	(0,002)	(0,009)
L_internationalization	-0,625	2,754	-0,106	0,039
	(1,761)	(1,873)	(0,109)	(0,456)
Matur_stage	-0,625	-2,583	-0,078	-0,699
	(1,761)	(4,852)	(0,283)	(1,183)
Consol_stage	0,003	1,656	-0,049	-2,129
	(2,473)	(6,815)	(0,399)	(1,656)

Industry_2	-0,022	7,923	0,081	-0.359
	(2,620)	(7,170)	(0,416)	(1,752)
Industry_3	2,516	14,749**	-0,025	0,012
	(2,252)	(6,207)	(0,362)	(1,506)
Industry_4	-1,144	6,455	0,176	-0,817
	(2,424)	(6,727)	(0,392)	(1,623)
Industry_5	-1,033	9,737	0,091	1,224
	(2,258)	(6,293)	(0,365)	(1,524)
Constant	8,034*	-4,916	0,145	7,745***
	(4,213)	(11,527)	(0,681)	(-2,822)
R²	0,029	0,057	0,024	0,023
Adj R²	-0,027	0,002	-0,031	-0,033
F value	0,518	1,030	0,436	0,410

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression also includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 8d: Correlation table hypothesis 3b

		ROA	ROE	ROA_GROWTH	ROA_MEAN	X1	X2	X3	X4	X5	X6	Employees	L_INTERNATIONALIZATION	GROWTH_PHASE	MATUR_PHASE	CONSOL_PHASE	INDUSTRY 1	INDUSTRY 2	INDUSTRY 3	INDUSTRY 4	INDUSTRY 5
ROA	Pearson Correlation	1,000																			
	Sig. (2-tailed)																				
	N	2,570 E2																			
ROE	Pearson Correlation	,725	1,000																		
	Sig. (2-tailed)	,000																			
	N	250	2,500 E2																		
ROA_GROWTH	Pearson Correlation	,192	-,055	1,000																	
	Sig. (2-tailed)	,002	,384																		
	N	257	250	2,600 E2																	
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000																
	Sig. (2-tailed)	,000	,001	,017																	
	N	256	250	256	2,560 E2																
X1	Pearson Correlation	,007	-,038	,029	,035	1,000															
	Sig. (2-tailed)	,909	,548	,638	,580																
	N	257	250	260	256	2,600 E2															
X2	Pearson Correlation	,033	,018	-,060	-,086	-,287	1,000														
	Sig. (2-tailed)	,601	,780	,334	,168	,000															
	N	257	250	260	256	260	2,600 E2														
X3	Pearson Correlation	,003	-,004	-,004	,003	-,053	-,105	1,000													
	Sig. (2-tailed)	,956	,952	,948	,956	,391	,090														
	N	257	250	260	256	260	260	2,600 E2													
X4	Pearson Correlation	-,091	,111	-,043	-,024	-,155	-,307	-,057	1,000												
	Sig. (2-tailed)	,146	,080	,493	,697	,012	,000	,360													
	N	257	250	260	256	260	260	260	2,600 E2												
X5	Pearson Correlation	,014	-,076	,072	,055	-,250	-,493	-,092	-,267	1,000											
	Sig. (2-tailed)	,824	,234	,247	,384	,000	,000	,140	,000												
	N	257	250	260	256	260	260	260	260	2,600 E2											
X6	Pearson Correlation	-,012	-,011	-,005	-,020	-,024	-,047	-,009	-,025	-,041	1,000										
	Sig. (2-tailed)	,853	,856	,942	,755	,704	,453	,889	,685	,514											
	N	257	250	260	256	260	260	260	260	260	2,600 E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	-,059	,164	,284	-,063	-,167	,211	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,345	,009	,000	,320	,008	,001										
	N	252	245	255	251	255	255	255	255	255	255	2,550 E2									
L_INTERNATIONALIZATION	Pearson Correlation	-,067	,036	-,043	,007	-,050	,027	-,008	-,042	,022	,046	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,419	,668	,894	,503	,725	,459	,000									
	N	255	248	258	254	258	258	258	258	258	258	253	2,580 E2								
GROWTH_PHASE	Pearson Correlation	,017	,027	-,002	,058	,119	-,024	,194	-,008	-,172	.	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,061	,705	,002	,903	,006	,000	,764	,335								
	N	247	240	250	246	250	250	250	250	250	250	246	248	2,500 E2							
MATUR_PHASE	Pearson Correlation	-,031	-,034	-,004	-,009	-,051	-,006	-,144	,101	,038	.	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,422	,923	,023	,113	,546	,000	,509	,422	,000							
	N	247	240	250	246	250	250	250	250	250	250	246	248	250	2,500 E2						
CONSOL_PHASE	Pearson Correlation	,022	,011	,008	-,066	-,089	,041	-,059	-,133	,179	.	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,161	,515	,356	,036	,005	,000	,598	,865	,000	,000						
	N	247	240	250	246	250	250	250	250	250	250	246	248	250	250	2,500 E2					
INDUSTRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	-,013	,069	,024	-,090	-,016	,091	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,832	,271	,697	,148	,795	,145	,012	,000	,245	,089	,402					
	N	257	250	260	256	260	260	260	260	260	260	255	258	250	250	250	2,600 E2				
INDUSTRY_2	Pearson Correlation	,017	,005	,024	,005	-,031	-,114	,098	,045	,078	-,026	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,622	,066	,115	,473	,213	,675	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	260	260	260	260	260	260	255	258	250	250	250	260	2,600 E2			
INDUSTRY_3	Pearson Correlation	,103	,120	-,023	,007	-,003	,013	-,067	,005	,013	-,030	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,965	,831	,284	,939	,835	,635	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	260	260	260	260	260	260	255	258	250	250	250	260	260	2,600 E2		
INDUSTRY_4	Pearson Correlation	-,025	-,023	,025	-,040	-,045	,053	-,062	-,033	,025	-,028	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,467	,396	,317	,594	,690	,657	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	260	260	260	260	260	260	255	258	250	250	250	260	260	260	2,600 E2	
INDUSTRY_5	Pearson Correlation	-,050	,057	,007	,068	,091	-,041	,007	,095	-,089	-,029	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,143	,506	,911	,128	,150	,639	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	260	260	260	260	260	260	255	258	250	250	250	260	260	260	260	2,600 E2

Hypothesis 4a, describes that the first-generation family firms will have a more positive effect on performance than second or third+ generation family firms. The generation characteristics GEN_2 and GEN_more needs to be compared with the first generation since GEN_1 is the suppressed category. If we look at the regression table 9a, we see the opposite effect for the second generation family firms. GEN_2 is sign. at 5% level compared with GEN_1. This indicates that the second generation family firms have a larger effect on performance (ROA in this case) than the first generation family firms. The regression R^2 explains 41% of the sample variance of the performance measure ROA. This is the only model that shows a reasonable value for R^2 compared to the other three models. So we can conclude that there is an opposite effect than we assumed and therefore *hypothesis 4a* cannot be supported.

Table 9a: OLS estimation of hypothesis 4a

Variables	Model 1	Model 2	Model 3	Model 4
Generation characteristics				
GEN_2	4,424**	5,520	0,215	0,199
	(1,972)	(5,520)	(0,322)	(1,334)
GEN_MORE	3,411	6,510	0,226	0,985
	(2,336)	(6,510)	(0,381)	(1,579)
Control variables				
Firm size	-0,003	-0,033	0,002	-0,007
	(0,012)	(0,033)	(0,002)	(0,008)
L_internationalization	-0,689	2,677	-0,088	0,133
	(0,673)	(1,887)	(0,110)	(0,460)
Matur_stage	-1,299	-4,221	-0,062	-0,837
	(1,722)	(4,786)	(0,280)	(1,164)
Consol_stage	-0,450	-0,012	-0,022	-2,421
	(2,517)	(6,980)	(0,411)	(1,698)
Industry_2	0,046	7,442	0,152	-0,025
	(2,687)	(7,406)	(0,430)	(1,812)
Industry_3	2,540	14,862**	-0,055	0,029
	(2,265)	(6,290)	(0,369)	(1,527)
Industry_4	-1,335	4,657	0,152	-0753
	(2,429)	(6,790)	(0,397)	(1,640)
Industry_5	-0,807	10,894*	0,116	1,112
	(2,277)	(6,382)	(0,373)	(1,548)
Constant	3,946	-7,746	-0,198	5,987***
	(2,708)	(7,472)	(0,443)	(1,825)
R²	0,41	0,052	0,011	0,016
Adj R²	-0,002	0,008	-0,032	-0,028
F value	0,949	1,185	0,264	0,360

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression also includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 9b: Correlation table of hypothesis 4a

		ROA	ROE	ROA_GROWTH	ROA_MEAN	GEN_1	GEN_2	GEN_3	FIRM_SIZE	L_INTERNATIONALIZATION	GROWTH_PHASE	MATUR_PHASE	CONSOL_PHASE	INDUSTRY_1	INDUSTRY_2	INDUSTRY_3	INDUSTRY_4	INDUSTRY_5
ROA	Pearson Correlation	1,000																
	Sig. (2-tailed)																	
	N	2,570 E2																
ROE	Pearson Correlation	,725	1,000															
	Sig. (2-tailed)	,000																
	N	250	2,500 E2															
ROA_GROWTH	Pearson Correlation	,192	-,055	1,000														
	Sig. (2-tailed)	,002	,384															
	N	257	250	2,600 E2														
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000													
	Sig. (2-tailed)	,000	,001	,017														
	N	256	250	256	2,560 E2													
GEN_1	Pearson Correlation	-,114	-,054	-,045	,034	1,000												
	Sig. (2-tailed)	,072	,402	,480	,593													
	N	251	244	254	250	2,540 E2												
GEN_2	Pearson Correlation	,081	,094	,020	-,037	-,553	1,000											
	Sig. (2-tailed)	,203	,142	,746	,556	,000												
	N	251	244	254	250	254	2,540 E2											
GEN_3	Pearson Correlation	,019	-,054	,020	,009	-,340	-,595	1,000										
	Sig. (2-tailed)	,765	,397	,752	,882	,000	,000											
	N	251	244	254	250	254	254	2,540 E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	-,080	-,041	,122	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,211	,521	,054										
	N	252	245	255	251	249	249	249	2,550 E2									
L_INTERNATIONALIZATION	Pearson Correlation	-,067	,036	-,043	,007	-,066	-,025	,091	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,298	,698	,151	,000									
	N	255	248	258	254	252	252	252	253	2,580 E2								
GROWTH_PHASE	Pearson Correlation	,017	,027	-,002	,058	,125	,015	-,135	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,051	,821	,035	,764	,335								
	N	247	240	250	246	244	244	244	246	248	2,500 E2							
MATUR_PHASE	Pearson Correlation	-,031	-,034	-,004	-,009	-,014	,115	-,116	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,825	,073	,071	,509	,422	,000							
	N	247	240	250	246	244	244	244	246	248	250	2,500 E2						
CONSOL_PHASE	Pearson Correlation	,022	,011	,008	-,066	-,148	-,181	,345	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,021	,004	,000	,598	,865	,000	,000						
	N	247	240	250	246	244	244	244	246	248	250	250	2,500 E2					
INDUSTRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	-,093	-,006	,096	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,142	,925	,127	,012	,000	,245	,089	,402					
	N	257	250	260	256	254	254	254	255	258	250	250	250	2,600 E2				
INDUSTRY_2	Pearson Correlation	,017	,005	,024	,005	,009	,006	-,016	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,882	,919	,796	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	254	254	254	255	258	250	250	250	260	2,600 E2			
INDUSTRY_3	Pearson Correlation	,103	,120	-,023	,007	-,007	-,023	,032	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,914	,716	,607	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	254	254	254	255	258	250	250	250	260	260	2,600 E2		
INDUSTRY_4	Pearson Correlation	-,025	-,023	,025	-,040	-,057	,123	-,083	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,364	,051	,186	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	254	254	254	255	258	250	250	250	260	260	260	2,600 E2	
INDUSTRY_5	Pearson Correlation	-,050	,057	,007	,068	,166	-,095	-,053	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,008	,132	,396	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	254	254	254	255	258	250	250	250	260	260	260	260	2,600 E2

Hypothesis 4b, family firms with founder CEO have a higher effect on performance than descendant led and hired CEO(s), could not be proven statistically significant and is therefore not supported.

Table 9c: OLS estimation of hypothesis 4b

Variables	Model 1	Model 2	Model 3	Model 4
Generation characteristics				
DESCENDANT	1,878	-3,804	0,061	0,254
	(1,740)	(4,880)	(0,282)	(1,170)
OUTSIDER	2,154	2,159	-0,402	0,832
	(5,834)	(16,046)	(0,947)	(3,911)
Control variables				
Firm size	-0,003	-0,034	0,002	-0,006
	(0,012)	(0,034)	(0,002)	(0,008)
L_internationalization	-0,674	2,626	-0,091	0,109
	(0,667)	(1,886)	(0,108)	(0,452)
Matur_stage	-0,839	-2,580	-0,056	-0,661
	(1,721)	(4,776)	(0,278)	(1,157)
Consol_stage	-0,186	0,793	0,009	-1,950
	(2,414)	(6,701)	(0,391)	(1,618)
Industry_2	-0,264	7,874	0,121	-0,216
	(2,594)	(7,145)	(0,414)	(1,739)
Industry_3	2,439	14,866**	-0,027	0,032
	(2,241)	(6,218)	(0,362)	(1,502)
Industry_4	-1,168	6,571	0,161	-0,819
	(2,415)	(6,743)	(0,392)	(1,621)
Industry_5	-1,189	9,789	0,083	1,143
	(2,241)	(6,284)	(0,364)	(1,516)
Constant	5,467**	-1,786	-0,084	6,031***
	(2,614)	(7,224)	(0,424)	(1,752)
R^2	0,023	0,040	0,010	0,014
Adj R^2	-0,019	-0,003	-0,032	-0,029
F value	0,551	0,927	0,243	0,321

Model 1 measures performance based on ROA 2003, Model 2 is based on ROE 2003, model 3 performance measurement is ROA growth and model 4 measures performance based on ROA mean.

*, **, *** significant at the 10%, 5% and 1% level respectively (two-tailed test). Standard errors are reported in parentheses. The regression also includes dummy variables that represents the life cycle stage of a firm. Growth is the suppressed comparison category. We also controlled for the industry by including dummy variables for the one digit SIC code whereby Industry_1 is the suppressed category.

Table 9d: Correlation table hypothesis 4b

		ROA	ROE	ROA_GROWTH	ROA_MEAN	FOUNDER	DESCENDANT	OUTSIDER	FIRM_SIZE	L_INTERNATIONALIZATION	GROWTH_PHASE	MATUR_PHASE	CONSOL_PHASE	INDUSTRY_1	INDUSTRY_2	INDUSTRY_3	INDUSTRY_4	INDUSTRY_5
ROA	Pearson Correlation	1,000																
	Sig. (2-tailed)																	
	N	2,570E2																
ROE	Pearson Correlation	,725	1,000															
	Sig. (2-tailed)	,000																
	N	250	2,500E2															
ROA_GROWTH	Pearson Correlation	,192	-,055	1,000														
	Sig. (2-tailed)	,002	,384															
	N	257	250	2,600E2														
ROA_MEAN	Pearson Correlation	,701	,214	,149	1,000													
	Sig. (2-tailed)	,000	,001	,017														
	N	256	250	256	2,560E2													
FOUNDER	Pearson Correlation	-,051	,058	-,016	,034	1,000												
	Sig. (2-tailed)	,415	,359	,800	,586													
	N	257	250	260	256	2,600E2												
DESCENDANT	Pearson Correlation	,051	-,054	,017	-,032	-,947	1,000											
	Sig. (2-tailed)	,420	,393	,782	,611	,000												
	N	257	250	260	256	260	2,600E2											
OUTSIDER	Pearson Correlation	-,002	-,008	-,006	-,005	-,099	-,226	1,000										
	Sig. (2-tailed)	,979	,897	,929	,938	,112	,000											
	N	257	250	260	256	260	260	2,600E2										
FIRM_SIZE	Pearson Correlation	-,033	-,065	,057	-,042	-,105	-,010	,347	1,000									
	Sig. (2-tailed)	,606	,310	,364	,508	,093	,869	,000										
	N	252	245	255	251	255	255	255	2,550E2									
L_INTERNATIONALIZATION	Pearson Correlation	-,067	,036	-,043	,007	-,079	,073	,012	,264	1,000								
	Sig. (2-tailed)	,284	,575	,496	,913	,207	,240	,854	,000									
	N	255	248	258	254	258	258	258	253	2,580E2								
GROWTH_PHASE	Pearson Correlation	,017	,027	-,002	,058	,068	-,125	,194	-,019	,061	1,000							
	Sig. (2-tailed)	,791	,673	,973	,367	,287	,048	,002	,764	,335								
	N	247	240	250	246	250	250	250	246	248	2,500E2							
MATUR_PHASE	Pearson Correlation	-,031	-,034	-,004	-,009	,066	-,021	-,144	,042	-,051	-,743	1,000						
	Sig. (2-tailed)	,622	,602	,956	,892	,302	,745	,023	,509	,422	,000							
	N	247	240	250	246	250	250	250	246	248	250	2,500E2						
CONSOL_PHASE	Pearson Correlation	,022	,011	,008	-,066	-,185	,200	-,059	-,034	-,011	-,302	-,413	1,000					
	Sig. (2-tailed)	,734	,869	,900	,306	,003	,002	,356	,598	,865	,000	,000						
	N	247	240	250	246	250	250	250	246	248	250	250	2,500E2					
INDUSTRY_1	Pearson Correlation	-,037	-,132	-,025	-,034	-,077	,056	,060	,157	,345	,074	-,108	,053	1,000				
	Sig. (2-tailed)	,559	,037	,688	,592	,214	,365	,338	,012	,000	,245	,089	,402					
	N	257	250	260	256	260	260	260	255	258	250	250	250	2,600E2				
INDUSTRY_2	Pearson Correlation	,017	,005	,024	,005	-,009	-,016	,079	,038	-,165	,089	-,061	-,034	-,288	1,000			
	Sig. (2-tailed)	,785	,932	,694	,939	,879	,795	,205	,547	,008	,161	,338	,591	,000				
	N	257	250	260	256	260	260	260	255	258	250	250	250	260	2,600E2			
INDUSTRY_3	Pearson Correlation	,103	,120	-,023	,007	,021	,003	-,073	-,087	-,052	-,069	,079	-,018	-,326	-,200	1,000		
	Sig. (2-tailed)	,100	,058	,707	,905	,735	,962	,240	,165	,404	,277	,214	,773	,000	,001			
	N	257	250	260	256	260	260	260	255	258	250	250	250	260	260	2,600E2		
INDUSTRY_4	Pearson Correlation	-,025	-,023	,025	-,040	-,058	,079	-,068	-,158	-,226	-,040	,082	-,062	-,305	-,187	-,212	1,000	
	Sig. (2-tailed)	,691	,715	,685	,522	,348	,202	,272	,011	,000	,529	,196	,326	,000	,002	,001		
	N	257	250	260	256	260	260	260	255	258	250	250	250	260	260	260	2,600E2	
INDUSTRY_5	Pearson Correlation	-,050	,057	,007	,068	,138	-,133	-,006	,015	,005	-,062	,027	,045	-,322	-,197	-,224	-,209	1,000
	Sig. (2-tailed)	,424	,372	,913	,277	,027	,032	,928	,816	,937	,330	,665	,478	,000	,001	,000	,001	
	N	257	250	260	256	260	260	260	255	258	250	250	250	260	260	260	260	2,600E2

Exploring the relationship of investments through generations, three hypotheses were constructed. These hypotheses are tested using ANOVA, multiple comparisons. The Bonferroni correction method is used to address the problem of multiple comparisons. The correction is based on the idea that if an experimenter is testing n dependent or independent hypotheses on a set of data, maintaining the familywise error rate to test each individual hypothesis at a statistical significance level of 1/n times, what it would be if only one hypothesis was tested (Klockars, A.J. *multiple comparisons*, Beverly Hills, Calif., 1986). This way a distinction between the three category generations in comparison with the R&D measurements can be made. We will look at the R&D for each criteria between the first generation and second, between first and third plus generation. But also between the second and third generation is calculated within the multiple comparisons. Looking at the significance level of the F value, we will determine whether these hypotheses could be statistically confirmed. The multiple comparison is only included in our thesis if there is a significance level.

The first *hypothesis 4c* examines the effect of future-oriented investments in research and development and generations.

Table 10a: ANOVA of hypothesis 4c

Variable	F value	Sign.
R&D_1	1,953	0,144
R&D_2	0,502	0,606
R&D_3	0,201	0,818
R&D_4	1,885	0,154
R&D_5	4,293	**0,015****

Table 10a shows the F values for the five criteria's used to measure *research and development*. Only one of the R&D measurements (R&D_5) shows a significance at 5% level. Because this is the only variable that shows a significance, we report the multiple comparison table for R&D measurement in table 10b below.

Table 10b shows a significance level of 5% only between the first generation and second. This is however the opposite of we assumed. In the first generation family firms more

R&D (in this case marketing a unique product and/or service to the market) is performed. This indicates that *hypothesis 4a* is not supported.

Table 10b: Multiple comparison of hypothesis 4c

(i)	(j)	Mean difference (i-j)	Std. Error	Sign.
GEN1	GEN2	0,56953**	0,19495	0,011
GEN1	GEN3	0,34663	0,21923	0,345
GEN2	GEN3	-0,22290	0,18587	0,695

The result for *hypothesis 4d*, stating that family firms display more reputation over the continuity of the business, is with a small difference statistically insignificant with a significance level of 0,152 for the F value. Therefore we can conclude that there is an opposite effect than we assumed and therefore *hypothesis 4d* cannot be supported.

Table 10c: ANOVA of hypothesis 4d

Variable	F value	Sign.
REPUTATION	1,902	0,152

Hypothesis 4e is statistically insignificant for both measurements. Thus, *Hypothesis 4e* is not supported.

Table 10d: ANNOVA of hypothesis 4e

Variable	F value	Sign.
MARKETSHARE_1	0,241	0,786
MARKETSHARE_2	0,409	0,665

6.2 Conclusion

This study examines the relationship between family ownership and financial performance. Besides this central research question, we formulated three sub questions concerning the relationship between management, control and generation and financial performance in family firms. The data used is obtained from a sample of 260 Flemish family firms performed for a study for the Institute of family businesses in April 2003 by Prof. dr. Wim Voordeckers and Prof. dr. Anita Van Gils. Data collection for performance measurements were drawn from the Bel-First database (Bureau van Dijk).

The results, relating to the central research question (*ownership*), partially confirm our hypotheses. On the one hand, the results applied in our regression analysis to confirm an inverted-U-shaped relationship, were statistically insignificant for all beta coefficients. Thereby, the *hypothesis 1a* is not supported by our results. On the other hand, significant difference between performance in family firms with sole-ownership and family owned firms is found. In comparison to the sole-ownership firms, family-owned firms have a higher average performance. This result is consistent with Lee (2006) who reported that family-owned companies tend to experience higher employment and revenue growth over time and are more profitable.

The variable *management* is positive and significant (for performance measurement ROA), accepting the hypothesis that firms with family involvement in management have a greater performance. This confirms earlier findings of McConaughy, Matthews, and Fialko (2001) and Castillo and Wakefield (2006).

Exploring the hypotheses on the topic control, neither formulated hypotheses is supported. Regarding *hypothesis 3a*, family firms with large shareholders (>50%) have a less positive effect on firm performance than family firms with smaller shareholders, is not statistically significant for any performance measurements. Also no significant difference is found between family firms with large shareholders (>50%) led by founder CEO(s) and family firms with descendant CEO(s) on performance. Therefore, *hypothesis 3b,* is not supported.

The last set of hypotheses concerned the relationship between generation and performance. Five different hypotheses were constructed relating to this topic. The first two are related to performance like all above mentioned hypotheses, while the last three

relate to the effect of future-oriented investments through generations. The first hypothesis (*hypothesis 4a*), describes that the first-generation family firms will have a more positive effect on performance than second or third+ generation family firms. Our results show the opposite effect for the second generation family firms. This indicates that second generation family firms have a larger effect on performance (ROA in this case) than the first generation family firms. Therefore the assumed relationship cannot be supported. The following hypothesis (*4b*), stating that firms with founder CEO have a higher effect on performance than descendant led and hired CEO(s), lacks statistical significance and therefore this hypothesis is not supported.

The next three hypotheses relate to generation as the dependent variable, involving respectively *research and development, reputation* and *market share* through generations. None of these three are statistically significant.

6.3 Limitations and further research

The findings presented in this paper offer a number of opportunities for further research, as this study is not without limitations. First, this study makes comparisons between family firms themselves. Due to lack of data in our sample concerning non-family firms, it was not possible to compare family with non-family firms. An opportunity for research exist to examine the differences between family and non-family firms.

Second, we use performance as financial measure. Return on assets and return on equity are short term financial data while family firms are known for their long term horizon. Future studies would benefit from the collection of more longitudinal data to solve this issue.

Also another measure for performance can lead to interesting future research. Performance in its most general form means to what extent implemented objectives are executed efficiently and effectively. Performance can be measured against many measurements as preset standards of accuracy, completeness, innovation, costs, speed and many more.

Another limitation of this study is the limited sample size. A higher number of observations will increase the validity of the research.

In order to test the last three hypotheses, we defined R&D, reputation and market share as mentioned in section 5.3.1.2 part d. This approach has limitations since it just measures these variables as we defined them. Additional research could investigate whether there are other definitions that will explain these variables.

REFERENCES

ADAMS, R., ALMEIDA, H. and FERREIRA, D. (2009) 'Understanding the relationship between founder–CEOs and firm performance', *Journal of Empirical Finance*, 16 (1), 136-150.

ASTRACHAN, J.H., KLEIN, S.B. and SMYRNIOS, K.X. (2002) 'The F-PEC Scale of Family Influence: Construction, Validation, and Further Implication for Theory, *Family Business Review,* 29 (3), 321-339.

ASTRACHAN, J.H. and SHANKER, M.C. (2003) 'Family Businesses' Contribution to the U.S. Economy: A Framework for Assessing Family Business Statistics, *Family Business Review,* 9, 107-123.

BARNEY, J.B. (1996) 'The Resource-based Theory of the Firm', *Organization Science,* 7 (5), 469-469.

BARONTINI, R. and CAPRIO, L. (2006) 'The effect of family control on firm value and performance: evidence from continental Europe', *European Financial Management*, 12 (5), 689-723.

CABRERA-SUAREZ, K., DE SAA-PEREZ, P. and GARCIA-ALMEIDA, D. (2001) ' The succession process from a resource- and knowledge- based view of the family firm', *family business review*, XIV (1).

CHRISMAN, J.J., CHUA J.H., KELLERMANNS, F.W. AND CHANG, E.P.C (2007) 'Are family managers agents or stewards? An exploratory study in privately held family firms', *Journal of Business Research*, 60 (10), 1030-1038.

CHUA, J.H., CHRISMAN, J.J. EN SHARMA, P. (1999) 'Defining the family business by behaviour', *Entrepreneurship: Theory & Practice,* 23 (4), 19-39.

CHUA, J.H., CHRISMAN, J.J. and BERGIEL, E.B. (2009) 'An Agency Theoretic Analysis of the Professionalized Family Firm', Entrepreneurship: Theory & Practice, 33 (2), 355-372.

CHRISMAN, J.J., CHUA, J.H. and LITZ, R.A. (2004) 'Comparing the Agency Costs of Family and Non-Family Firms: Conceptual Issues and Exploratory Evidence', *Entrepreneurship: Theory & Practice,* 28 (4), 335-354.

HABBERSHON, TIMOTHY G.; WILLIAMS, MARY (2003); MACMILLAN, IAN C., 'A unified systems perspective of family firm performance'*, Journal of Business Venturing*, 18 (4), 451-465.

MILLER, D., LE BRETON-MILLER I., LESTER, R.H., CANNELLA A.A. (2007) 'Are family firms really superior performers?', *Journal of Corporate Finance*, 13 (5), 829-858.

MORCK, R. and YEUNG, B. (2003) 'Agency Problems in Large Family Business Groups', *Entrepreneurship: Theory & Practice*, 27 (4), 367-382

KARRA, N., TRACEY, P., PHILLIPS, N. (2006) 'Altruism and agency in the family firm: exploring the role of family, kinship, and ethnicity', *Entrepreneurship: Theory & Practice*, 30 (6), 861-877

KELLERMANNS, F.W. and EDDLESTON, K.A. (2007) 'A family perspective on when conflict benefits family firm performance', *Journal of Business Research*, 60 (10), 1048-1057.

KLOCKARS, A.J.(1986) 'multiple comparisons', *Quantitative applications in the social sciences*, 61.

RONALD, A.C., REEB, D.M. (2003) 'Founding-Family Ownership and Firm Performance: Evidence from the S&P 500', *Journal of Finance*, 58 (3), 1301-1328.

SCHULZE, W.S., LUBATKIN, M.H. and DINO, R.N. (2003) 'Toward a theory of agency and altruism in family firms', *Journal of Business Venturing*, 18 (4), 473-490.

SCHULZE, W.S., LUBATKIN, M.H., DINO, R.N. and BUCHHOLTZ, A.K. (2001) 'Agency Relationships in Family Firms: Theory and Evidence', *Organization Science*, 12 (2), 99-116.

SCIASCIA, SALVATORE; MAZZOLA, PIETRO (2008) 'Family Involvement in Ownership and Management: Exploring Nonlinear Effects on Performance', *Family Business Review*, 21 (4), 331-345.

SIRMON, D.G. and HITT, M.A. (2003) 'Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms', *Entrepreneurship: Theory & Practice*, 27 (4), 339-358.

STAVROU, E.T. (1998) 'A four factor model: A guide to planning next generation involvement in the family firm', *Family business review*, XI (2).

VAN DEN BERGHE, L.A.A. and CARCHON, S. (2003) 'Agency Relations within the Family Business System: an exploratory approach', *Corporate Governance: An International Review*, 11 (3), 171-179.

VILLALONGA, B. and AMIT, R. (2006), 'How do family ownership, control and management affect firm value?', *Journal of financial economics*, 80 (2), 385-471.

WESTHEAD, P. and HOWORTH, C. (2007) ''Types' of private family firms: an exploratory conceptual and empirical analysis', *Entrepreneurship & Regional Development*, 19 (5), 405-431.

ZAHRA, S.A., HAYTON, J.C and SALVATO, C. (2004) 'Entrepreneurship in Family vs. Non-Family Firms: A Resource-Based Analysis of the Effect of Organizational Culture', *Entrepreneurship: Theory & Practice*, 28 (4), 363-381.

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EXHIBIT 2: Definitions of family firms used in various studies around the world

EXHIBIT 1: List of 21 definitions on the degree or nature of family involvement

Author(s)	Definition
Alcorn, 1982	a profit-making concern that is either a proprietorship, a partnership, or a corporation, . . .If part of the stock is publicly owned, the family must also operate the business (p. 230).
Babicky, 1987	is the kind of small business started by one or a few individuals who had an idea, worked hard to develop it, and achieved, usually with limited capital, growth while maintaining majority ownership of the enterprise (p. 25)
Barnes & Hershon, 1976	Controlling ownership is rested in the hands of an individual or of the members of a single family (p. 106)
Bernard, 1975	an enterprise which, in practice, is controlled by the members of a single family (p. 42)
Carsrud, 1994	closely-held firm's ownership and policy making are dominated by members of an "emotional kinship group" (p. 40)
Churchill & Hatten, 1993	what is usually meant by family business. . . .is either the occurrence or the anticipation that a younger family member has or will assume control of the business from the elder (p. 52)
Davis, 1983	are those whose policy and direction are subject to significant influence by one or more family units. This influence is exercised through ownership and sometimes through the participation of family members in management (p. 47)
Davis & Tagiuri, 1985	a business in which two or more extended family members influence the direction of the business (quoted in Rothstein, 1992)
Donckels & Frohlich, 1991	if family members own at least 60 percent of the equity (p. 152)
Donnelley, 1964	when it has been closely identified with at least two generations of a family and when this link has had a mutual influence on company policy and on the interests and objectives of the family (p. 94)
Dreux, 1990	are economic enterprises that happen to be controlled by one or more families (that have) a degree of influence in organizational governance sufficient to substantially influence or compel action (p. 226)
Gallo & Sveen, 1991	a business where a single family owns the majority of stock and has total control (p. 181)
Handler, 1989	an organization whose major operating decisions and plans for leadership succession are influenced by family members serving in management or on the board (p. 262)
Holland & Oliver, 1992	any business in which decisions regarding its ownership or management are influenced by a relationship to a family or families (p. 27)
Lansberg, Perrow, Rogolsky (1988)	a business in which members of a family have legal control over ownership (p. 2)
Leach, et al (1990)	a company in which more than 50 percent of the voting shares are controlled by one family, and/or a single family group effectively controls the firm, and/or a significant proportion of the firm's senior management is members from the same family (quoted by Astrachan, 1993, pp. 341-342)
Lyman, 1991	the ownership had to reside completely with family members, at least one owner had to be employed in the business, and one other family member had either to be employed in the business or to help out on a regular basis even if not officially employed (p. 304)
Pratt & Davis, 1986	one in which two or more extended family members influence the direction of the business through the exercise of kinship ties, management roles, or ownership rights (chap. 3, p. 2)
Rosenblatt, deMik, Anderson, & Johnson, 1985	any business in which majority ownership or control lies within a single family and in which two or more family members are or at some time were directly involved in the business (pp. 4-5)
Stern, 1986	owned and run by the members of one or two families (p. xxi)
Welsch, 1993	one in which ownership is concentrated, and owners or relatives of owners are involved in the management process. (p. 40)

Source: Chua et al. (1999)

EXHIBIT 2: Definitions of family firms used in various studies around the world

#	Author(s)	Study time line	Data source	Data location	Family firm definition(s) employed
1	Allen and Panian (1982)	1971–1980	250 largest firms in terms of sales for 1974 or 1975	U.S.	Family firm whenever the members of a descendent group and their affines owned or controlled at least 5 percent of the voting stock in a corporation and were represented on board of directors. Other definitions employed: Direct family control when the CEO is a member of the controlling family.
2	Anderson and Reeb (2003)	1992–1999	1992 S&P 500	U.S.	Family firm if there exists fractional equity ownership of the founding family and / or the presence of family members serving on the board of directors. Other definitions employed: Ratio of board seats held by family members to board seats held by independent directors / CEO founder indicates a founding family firm when the CEO is the founder of the firm / CEO descendent indicates a founding family firm when the CEO is a descendent of the founder during the past decade.
3	Anderson and Reeb (2004)	1992–1999	1992 S&P 500	U.S.	Family firm if there exists fractional equity ownership of the founding family and/or the presence of family members serving on the board of directors. Other definitions employed: Ratio of board seats held by family members to board seats held by independent directors/If family board control exceeds independent director control.
4	Anderson, Mansi, and Reeb (2003)	1993–1998	Firms in both the Lehman Brothers Bond Database and the S&P 500	U.S.	Family firm if there exists fractional equity ownership of the founder and his/her immediate family. Other definitions employed: Fractional equity ownership of the founder and his/her immediate family & board of directors membership/ Fractional equity ownership of the founder and his/her immediate family and size of the family's ownership stake relative to other block holders/Fractional equity ownership of the founder and his/her immediate family and family equity holdings as a fraction of outstanding shares.
5	Ang, Cole, and Lin (2000)	1992	Federal Reserve Board's National Survey of Small Business Finances	U.S.	Family firm when a single family controls more than 50% of the firm's shares.
6	Barontini and Caprio (2005)	1999	Large publicly traded firms greater than 300 million euros in assets. 675 firms.	Continental Europe (11 countries)	Family firm if the largest shareholder owns at least 10% of ownership rights and either family or largest shareholder controls more than 51% of direct voting rights or controls more than the double of the direct voting rights of the second largest shareholder. Other definitions employed: Firm run by family COO/Firm run by non family COO but one family member is on board/Family firm when founder or descendent of founder runs firm.
7	Barth et al. (2005)	1996	Survey of firms associated with the Confederation of Norwegian Business and Industry	Norway	Family firm if at least 33% of the shares of the firm are owned by one person or one family.
8	Bennedsen et al. (in press)	1994–2002	Limited liability public and private firms which underwent a CEO succession	Denmark	Family firm whenever an incoming CEO is related by blood or marriage to the outgoing CEO.
9	Claessens et al. (2000)	1996	WorldScope	9 East Asian Countries	Family groups are those that control more than 5% of the company's votes. Family group is identified through published family trees in each country and may consist of one family or a group of families.
10	Claessens et al. (2002)	1996	WorldScope	8 East Asian Countries	Family firm when there is the presence of a group of people related by blood or marriage with large ownership stakes.
11	Cronqvist and Nilsson (2003)	1991–1997	Stockholm Stock Exchange	Sweden	Founder families may include only a single individual or a closely knit group of individuals who do not belong to the same family. Other definitions employed: Founder family ownership is ownership by the founder or descendents of the founder and families/individuals affiliated with the founder.
12	Denis and Denis (1994)	1985	Value Line Investment Survey	U.S.	Family firm if 2 or more family members are present as officers/directors or if founders are officers.
13	Faccio and Lang (2002)	1996–1999	WorldScope plus various country specific reference data bases	13 Western European countries	Family firm if a family or an individual or unlisted firm on any stock exchange is considered as the ultimate owner (greater than 20% of either cash flow or control rights).
14	Fahlenbrach (2006)	1992–2002	2327 publicly traded firms listed in IRCC for all years, firms drawn from S&P 500, Fortune, Forbes, Business Week	US	Family firm if the CEO is the founder or co-founder.
15	Gomez-Mejia et al. (in press)	1944–1998	Spanish government registry	Spain	Family firm if the company is owned and operated by the founding family. Other definitions employed: Owned and operated by non-founding extended family/Owned and operated by non-founding extended family members but managed by hired professionals.
16	Gomez-Mejia et al. (2003)	1995–1998	Random sample culled from Compustat	U.S.	Family controlled firm under two conditions: two or more directors had a family relationship, and family members owned or controlled at least 5% of the voting stock. Family relationship included father, mother, sister, brother, son, daughter,

				spouse, in-laws, aunt, uncle, niece, nephew, cousin. Other definitions employed: Family controlled and CEO is family member/Percentage of family equity ownership/Family controlled and family member(s) are on the compensation committee.
17	Gomez-Mejia et al. (2001)	1966–1993	Registry of Newspapers, Media Guide of Spain, Oficina de Justificacion de la Difusion—All daily newspapers	Spain	Family firm if in this newspaper sample there were family ties between the newspaper's CEO and editor.
18	Holderness and Sheehan (1988)	1980–1984	114 randomly chosen publicly traded firms — data source Spectrum 5	US	Family firm if an individual majority shareholder or entity owns at least 50.1% of the stock: may include trusts and foundations.
19	La Porta et al. (1999)	1995–1997	World scope-27 countries represented	Worldwide	Family firm if a person is the controlling shareholder (ultimate owner) whose direct and indirect voting rights exceed 20%.
20	Luo and Chung (2005)	1973–1996	Directory business groups in Taiwan	Taiwan	Firm created by entrepreneurs. Other definitions employed: Firm's key leader has inner circle members who are immediate family members/Firm's key leader has inner circle members with prior social relationships — distant relatives, in-laws, friends, classmates, colleagues, business partners.
21	Maury (2006)	1996–2003	Faccio and Lang, 2002 data plus WorldScope 2003	13 Western European countries	Family firm if the largest controlling shareholder who holds at least 10% of the voting rights is a family, an individual, or an unlisted firm (unlisted firms are often closely held and therefore considered under family control). Other definitions employed: The controlling shareholder is from an unlisted firm/The largest controlling shareholder is an identified family or individual/The controlling shareholder is a family or an individual holding the title of CEO, Honorary Chairman, Chairman, or Vice Chairman.
22	McConaughy et al. (1998)	1987	*Business Week* CEO 1000	U.S.	Family founder controlled firm — A public corporation whose CEO is either the founder or a member of the founder's family.
23	Morck et al. (1988)	1980	*Fortune* 500	U.S.	Family firm if a member of the founding family is among the top two officers.
24	Perez-Gonzalez (2006)	1980–2001	*Compustat* 1994	U.S.	Sample firms met the following requirements: (1) founded prior to 1971; (2) exhibited at least one of the following (a) two or more individuals related by blood were directors, officers, or shareholders (b) an individual had at least 5% ownership (c) a founder was an executive or director, and (3) a CEO change occurred during the time window. Further a family succession was coded within this sample of firms when the new CEO was related by blood or marriage to : (1) the departing CEO, (2) the founder, or (3) a large shareholder.
25	Schulze et al. (2001)	1995	Survey of American family businesses conducted by the Arthur Anderson Center for Family Business.	U.S.	Family firm if privately held, greater than $5 m annual sales, and listed by Arthur Anderson as a family business.
26	Schulze et al. (2003)	1995	Survey of American family businesses conducted by the Arthur Anderson Center for Family Business.	U.S.	Family firm if privately held, greater than $5 m annual sales and listed by Arthur Anderson as a family business.
27	Smith and Amoako-Adu (1999)	1962–1996	Toronto Stock Exchange companies	Canada	Family firm if a person or a group related by family ties holds the largest voting block and at least 10% of the total votes.
28	Villalonga and Amit (2006b)	1994–2000	*Fortune* 500	U.S.	Family firm if the founder or a member of the family is officer, director or owns >5% of the firm's equity. Other definitions employed: 1 or more family members are officers directors or block holders/At least 1 family officer and 1 family director/Family is largest vote holder/Family is largest shareholder/1 or more family members from 2nd generation or later are officers, directors, or block holders / Family is largest vote holder and has at least one family officer and 1 family director/Family is largest shareholder and has at least 20% of the votes/1 or more family members are directors or block holders but there are no family officers/Family is largest vote holder, has at least 20% of votes, one family officer and 1 family director and is in 2nd or later generation.

This table represents studies identified by searching top tier finance and management journals between 1996 to 2006 (e.g. *Academy of Management Journal – Administrative Science Quarterly – Journal of Corporate Finance – Journal of Financial Economics – Quarterly Journal of Economics – Review of Financial Economics – The Journal of Finance*) for titles or abstracts that used the term "family firm". Using the ancestral approach we were also able to identify other sources. The list above is intended to be representative of the major contributions to the field of empirical family business research published in the last decade.

Source: Miller et al. (2007)

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