5-2018

Understanding the role of social capital on performance in family firms.

Mahshid Jessri
University of Louisville

UNDERSTANDING THE ROLE OF SOCIAL CAPITAL ON PERFORMANCE IN FAMILY FIRMS

By

Mahshid Jessri
BSc, Amirkabir University of Technology, 2011

A Dissertation
Submitted to the Faculty of the
College of Business of the University of Louisville
in Partial Fulfillment of the Requirement
for the Degree of

Doctor of Philosophy
in Entrepreneurship

Department of Entrepreneurship
University of Louisville
Louisville, Kentucky

May 2018

UNDERSTANDING THE ROLE OF SOCIAL CAPITAL ON PERFORMANCE IN FAMILY FIRMS

By

Mahshid Jessri
BSc, Amirkabir University of Technology, 2011

A Dissertation Approved on

April 10, 2018

By the following Dissertation Committee:

Dr. Manju Ahuja (Dissertation Chair)

Dr. Bruce Kemelgor

Dr. Sandeep Goyal

Dr. Dean Shepherd

DEDICATION

To my parents,

For teaching me the value of education and hard work,

And for showing me love in its rarest form.

"I am grateful to have been loved. Love liberates. Love says, 'I love you. I love you if you're in China. I love you if you're across town. I love you if you're in Harlem. I love you. I would like to be near you. I'd like to have your arms around me. I'd like to hear your voice in my ear. But that's not possible now, so I love you.'"[1]

[1] by Maya Angelou

ACKNOWLEDGEMENTS

First and foremost, I would like to extend my most sincere gratitude to my dissertation advisor, Dr. Manju Ahuja, for the guidance, encouragement and mentorship she has provided throughout my doctoral studies. I have been extremely lucky to have a supervisor who set an example of excellence as a researcher, mentor and role model.

I would like to thank members of my dissertation committee, Dr. Bruce Kemelgor, Dr. Sandeep Goyal, and Dr. Dean Shepherd. Thank you for your time and effort throughout these years. This work would not have been possible without your advice and support. I am very grateful to all the faculty members and staff of the College of Business at University of Louisville for their assistance and valuable insights throughout my doctoral studies. In addition, I would like to thank the PhD program in Entrepreneurship for financially supporting my dissertation.

On a more personal note, I would like to thank my eldest sister, Maryam for her unwavering support. You have always paved the road for me and pushed me to strive for the best. Thank you for leading by example. I would like to thank my elder sister, Mahsa for believing in me. You have been and continue to be my best teacher. Thank you for loving me through my faults and mistakes, and knowing me better than I know myself. I have saved this last word of acknowledgment for the rock of my life, Farrokh. You have made me feel strong when I needed it most. Thank you for always being there for me.

ABSTRACT

UNDERSTANDING THE ROLE OF SOCIAL CAPITAL ON PERFORMANCE IN FAMILY FIRMS

Mahshid Jessri

April 10, 2018

One important form of social capital is family social capital, which is mainly the relationship among family members in family business. In this dissertation, we utilize two perspectives of innovativeness and network mobilization to study the relationship between family social capital and firm performance. In the first study, we examine family social capital as a multidimensional construct, and study the relationship between the three aspects of structural, cognitive, and relational family social capital. The relationship between relational social capital and performance is studied through the lens of network mobilization, and the model investigates how family firm identity alters this relationship, and the relationship between structural and cognitive social capital. In the second study, we examine the relationship between family social capital and performance through an innovativeness perspective. Also, environmental munificence and family involvement are predicted to respectively moderate the relationship between innovativeness and firm performance, and the relationship between family social capital and firm performance.

Analyzing a sample of 267 small private US family firms, strong support was found for our hypotheses. We find that structural family social capital and cognitive family social capital have a positive relationship with relational family social capital. Also as predicted, network mobilization is shown to mediate the relationship between relational social capital and firm performance. Further, family firm identity is shown to positively moderate the relationship between structural social capital and cognitive social capital, and also the relationship between relational social capital and network mobilization. Results of study 2 indicate that family social capital is positively related to firm performance, and innovativeness positively mediates this relationship. Further, in this study, environmental munificence is shown to positively moderate the relationship between innovativeness and firm performance.

This dissertation has several theoretical, practical, and methodological implications. It expands our understanding of the importance of network mobilization and innovativeness in family firm's success. It helps family business owners and managers to recognize the importance of environment and family variables. This dissertation offers new insights for the family social capital literature and highlights the importance of studying the effect of family social capital on performance through different perspectives.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Family-owned firms are an important form of business in the USA and the world (Morck and Yeung, 2004). According to reports from Business Week (2003), one third of the S&P 500 firms have family members in their top management level. Including 80 percent of the workforce in the USA, family business has become a growing topic with a significant influence (Neubauer and Lank, 1998; Sharma et al., 1996).

Research in the family business area has been a growing but still emerging field of study in the last decade (Benavides-Velasco, Quintana-Garcia, Guzman-Parra, 2013; Chrisman et al., 2008). Family business was first studied as a topic in Sociology and later in small business management (Benavides-Velasco et al., 2013). Studying family firms has been an interesting topic for scholars of other fields since the 1980s, but family business research has gained popularity as a discipline mostly in the last decade (Benavides-Velasco et al., 2013). Therefore, the scope of literature in this discipline is still limited compared to other management areas (Bird, Welsch, Astrachan, and Pistrui, 2002). The topics that have received attention in the family firms discipline mostly include succession (Handler, 1994; Lansberg and Astrachan, 1994; Sharma et al., 2003), corporate governance (Lubatkin, Schulze, Ling, and Dino, 2005; Miller and Le Breton-Miller, 2007), and strategic management (Chrisman et al., 2005).

The progress that is made in the field of family business research, and most importantly, research on performance of family firms is significant. Much of the prior literature has largely focused on the unique characteristics of family firms and how these characteristics bring competitive advantage to these firms (Ward, 1988; Taguiri and Davis, 1996; Aronoff and Ward, 1995). However, many studies do not link the descriptive characteristics of family business to performance variables. Most of the studies, which have used performance variables (McConaughy, Walker, Henderson, and Mishra, 1995), do not link these advantages to antecedents. We believe that developing an understanding of antecedents of family business performance, from a social capital lens, can help researchers and practitioners by expressing how the quantity and quality of relationships in their family and firm can help their family firm create value.

In order to link firm-level antecedents to performance outcomes, scholars have started studying family business through the lens of the resource-based view of the firm (RBV) (Habbershon and Williams, 1999). RBV has been utilized as a basis for explaining the competitive advantage of firms based on the application of a bundle of valuable resources. Access to resources can help firms sustain good standing performance; hence, resources for family businesses (family capital) are of great importance. In the context of resources needed for family firms, Danes et al. (2009) suggest that three types of family capital (social, human, and financial) account for a significant part of success, especially in small or entrepreneurial firms. Researchers suggest that what distinguishes family firms from nonfamily businesses is mostly family social capital (Sorenson and Bierman, 2009). Although human capital and financial resources are also important factors for family firms, they can be obtained from other places. But family social capital exists within family relationships and cannot be hired or imported (Sorenson and Bierman, 2009). Social capital is difficult to copy or imitate, which makes it a great source of competitive advantage for family businesses (Pearson et al., 2008). Therefore, the nature of family social relationships is an important factor in an examination of family firm performance (Dyer and Dyer, 2009).

The notion of family social capital is derived from the general notion of social capital. Social capital is defined as “the sum of the actual and potential resources embedded within, available through, and derived from the networks of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal, 1998, p. 243). Social capital in family businesses is shaped through time and over generations and is based on values and norms of the family (Pearson et al., 2008).

Although social capital is an important antecedent of family firm performance, there is little consensus in the literature regarding the effect of family social capital on firm performance. The results range from a positive relationship (Andersson, Forsgren, and Holm, 2002; Park and Luo, 2001) to a negative relationship (Rowley, Behrens and Krackhardt, 2000). Therefore, studying the role of social capital on family firm performance is a significantly important topic and the focus of this dissertation.

Based on these arguments, the general research question that we are addressing in this dissertation is:

How does family social capital create value or lead to competitive advantage in family firms?

For answering this broad question, we use two lenses of network mobilization and innovativeness. First, network mobilization is chosen alongside the social capital inside the family firm, because we argue that firms can use experiences of other firms for implementing new strategies and how to deal with uncertainty. Also, external networks are of a great importance for family firms, because of the nature of their dense internal networks. Second, studying innovative behavior in family firms is important, because family firms have unique sets of norms, cultures, and processes that may not be found in nonfamily firms (Kellermanns, Eddleston, Sarathy, and Murphy, 2012). Using innovativeness as a mediator for the relationship between family social capital and performance is a novel contribution to the family business domain.

Therefore, we break the research question into two models: in the first model, we study how the social capital dimensions (structural, cognitive, and relational) mediated by network mobilization create value in family firms. And in the second model, we study how innovativeness mediates the relationship between family social capital and firm performance.

We begin the introduction by explaining how social capital is created in family firms and how families try to maintain and use this resource for creating value. Then, the theoretical framework of this dissertation is discussed, followed by a detailed description of both studies. Finally, the scope of the dissertation, contributions to the field and a road map are presented.

Social capital in family firms is mainly formed through relationships among family members involved in the family firm. Family relationships can manage conflicts and help members work together even during negative feelings (Sorenson and Bierman, 2009). Relationships in the family can help promote trust and cooperation and attract human and financial capital to the business (Sorenson and Bierman, 2009). Family social capital refers to how members relate to each other and even to the larger community (Hoffman, Hoelscher, and Sorenson, 2006). Moral infrastructure is the heart of family social capital, which provides a basis for family values, norms, obligations, and expectations (Sorenson and Bierman, 2009). Open dialogue within the family helps develop family values that become common among individuals across communities and cultures. In family businesses, family beliefs form values and norms for relationships among stakeholders, including employees and customers (Sorenson and Bierman, 2009). Therefore, family relationships can have a positive and/or negative impact on the business and the larger community (Sorenson et al., 2009).

For building and maintaining social capital, families hold meetings and councils. Having a continuous dialogue with other members helps family firms keep the social structure of the family (Sorenson et al., 2009). Social capital that is developed through relationships in the family can be employed for business purposes (Danes et al., 2009; Sharma, 2008).

According to Nahapiet and Ghoshal (1998), antecedent conditions for creation of social capital in the firms are: (1) time (stability), (2) interdependence, (3) interaction, and (4) closure (Arregle et al., 2007; Nahapiet and Ghoshal, 1998; Pearson et al., 2008) - these four tasks are explained in more details in chapter 2. Because these four elements are what family firms do well (Arregle et al., 2007 and Pearson et al., 2008), they have the potential to have highly valuable and more effective social capital compared to non-family firms. Family firms are highly stable and interdependent and have dense interactions and networks. Therefore, studying the role of social capital in family firms is crucial.

To have a broad understanding of how social capital affects performance in family firms, contribution from several research disciplines has been necessary to develop theories (Chrisman et al., 2008). Application of theories of the firm in the context of family business can provide theoretical and empirical structure (Chua et al., 2003). Building on theories of the firm, it is important to understand how this form of organization behaves and performs, and what features make family firms different from other forms of business.

According to several studies, one of the defining features of family firms is to transfer ownership to their next generation (Chua et al., 1999; Uhlander, 2005; Kellermanns et al., 2012), which is ultimately a central goal of this type of firm too (Gomez-Mejia et al., 2007; de Vries, 1993). Like all firms, one other important goal of family firms is to perform well. For achieving that goal, family firms have some unique resources that distinguish them from non-family firms. A key part of the studies in this dissertation is examining resources in families and how they provide a basis for better performance.

One of the most well-known frameworks addressing resources in the firm is RBV. RBV suggests that when a resource is valuable, rare, inimitable, and without substitutes, it provides the basis for competitive advantage (Barney, 1991). Social capital as a resource of the firm makes a positive contribution to the firm's competitive advantage and outcome (Nahapiet and Ghoshal, 1998; Sorenson et al., 2009), and those benefits may last across generations in family firms (Chua et al., 1999). Social capital helps reduce transaction costs, facilitate knowledge creation and information flow inside the organization (Burt, 2000; Nahapiet and Ghoshal, 1998).

For understanding family social capital, as a valuable resource in family firms, we use social capital theory as the overarching theory. Social capital theory (which is discussed in detail in chapter 2) is a broad theory and has been described as an umbrella concept (Hirsch and Levin, 1999). Hence, based on the models in this dissertation, social capital theory is the principal theory that is used to explain the general research question of this dissertation. And RBV is used as an additional framework to explain focus of the models on firm resources for gaining competitive advantage.

Here, we lay out the two studies of this dissertation. Both studies address the general research question, which is the role of family social capital on firm performance, but they do it through different lenses of innovativeness and external social capital. Both models take family variables into account as moderators.

Study 1

In study 1, we examine social capital as a multidimensional construct, and focus on the three aspects of social capital: structural embeddedness, cognitive embeddedness and relational embeddedness. First, this study examines how structural and cognitive family social capital helps develop relational family social. We argue that strong structural social capital strengthens values and goals and helps norms to be easily transferred to the firm. Also it helps norms to be shared by all members of the family firm, and this homogeneity among the members increases the level of relational social capital among members of the firm (Cabrerra-Suarez et al., 2015).

In the next step, the relationship between relational family social capital and network mobilization is studied. Network mobilization refers to using outside networks to benefit the organization (Lin, 2001). In the social capital literature, it is also known as *bridging* or external social capital (Burt, 1997; Elfring and Hulsink, 2003). Firms can learn from each other and gain competitive advantage, therefore studying network mobilization is particularly important. We argue that relational social capital in family firms ensures that people can work collectively, and by using resources from both inside and outside the organization, they can benefit the family firm.

We argue that the relationship between relational social capital and network mobilization in family firms is moderated by a family effect. Family firm identity, introduced by Eddleston (2011) is a variable that shows the degree to which family identity and firm identity overlap. We argue that the quality of relationships among members of the firm affects the level to which the firm develops outside networks, but family firm variables (and specifically family firm identity) alter the strength of this relationship. When family firm identity is high, owners try to work collectively to help the family and the firm, but that is strengthened when high levels of relational social capital exists among members of the firm (Uhlander et al., 2015).

Finally, based on literature including Uhlander et al. (2015), network mobilization has many benefits, including but not limited to improved firm's intellectual capital (Nahapiet and Ghoshal, 1998), innovation (Zheng, 2010), more access to information (Adler and Kwon, 2002), knowledge transfer (Reagans and McEvily, 2003), and firm performance (Westlund and Adam, 2010). The last part of this study is exploring the relationship between network mobilization and family firm performance.

Study 2

In study 2, we examine the role of innovativeness as a mediator for the relationship between family social capital and firm performance in family firms. Innovativeness is a firm's willingness to engage in new ideas and creative processes for developing new products and services (Lumpkin and Dess, 1996). Through an innovativeness perspective, we study how high quality networks in families can help promote innovation, which is believed to help firms perform better.

First, we argue that social capital helps the flow of information in the organization. Through an increased number of network ties with high quality (which is what is present in family businesses), family firms have access to networks through which they can transfer knowledge and skills and it leads to a higher level of innovativeness. Next, we argue that innovativeness in family firms not only provides a basis for competitive advantage, but also makes for improvements in firm performance.

The next step is studying the moderating role of environmental factors, which is one of the key goals of this study. Aldrich (1979, p. 61) stated that "environments affect organizations through the process of making available or withholding resources". Organization-environment relations have long been an important theme in strategic management (Aldrich and Pfeffer, 1976; Starbuck, 1976). Dess and Beard (1984) placed environmental factors in three dimensions: munificence (capacity), dynamism (stability-instability, turbulence), and complexity (homogeneity-heterogeneity, concentration-dispersion). These three categories of environmental dimensions are based on Aldrich's work (1979) and consistent with previous proposed dimensions (Pfeffer and Salancik, 1978; Mintzberg, 1979). For purposes of this study, we have chosen the most commonly used dimension of the environment that has shown to affect the firm: environmental munificence. This environmental factor is studied to show how the environment affects the mediating relationship of innovativeness between family social capital and the performance of family firms. This factor is considered important, because it is a source of significant environmental uncertainty (Thompson, 1967; Gnyawali and Stewart, 2003).

Environmental munificence is the extent to which the environment can sustain developed growth (Starbuck, 1976). Both Starbuck (1976) and Aldrich (1979) state that those environments that allow for organizational growth and stability are more desirable for organizations. Organizational growth and stability generate slack resources (Cyert and March, 1963), which then lead to organizational innovation amongst other forms of value for the organization (Bourgeois, 1981; Chakravarthy, 1982). Many studies have shown that the level of profitability for the industry within which the organization competes is an important predictor of organizational performance (Beard and Dess, 1981). Hence this model studies how environmental munificence affects the relationship between innovativeness and performance of the firm. To the best of our knowledge, the effect of environmental munificence on this relationship has not been studied in family firms before.

Finally, the relationship between family social capital and firm performance is examined with family management involvement as the moderator of this relationship. We argue that the more involved the family is in the management of the firm, the more their internal social capital can change performance of the firm. Therefore, we investigated the moderating role of family management involvement in the relationship between family social capital and performance.

In summary, this study examines how innovativeness mediates the relationship between family social capital and performance in family firms and how environmental munificence and family management involvement moderate these relationships.

Scope and Contribution

Here, we discuss the scope of this dissertation followed by theoretical and empirical contributions:

This dissertation focuses on two studies in the domain of family firms. Family firms are complex companies and much more effort is needed to understand their unique attributes, similarities and what distinguishes these firms. The scope of this dissertation is limited to studying similarities and differences only among the family firms. We do not intend to do any comparisons between family firms and non-family firms; the objective is to study the heterogeneity within family firms. Also for the purposes of this dissertation, family firms in the US have been chosen. This dissertation does not discuss how these results might hold or differ in other countries or cultures. Public family firms are not included in the sample study; the focus is only on small private family businesses.

This dissertation makes several contributions. Social capital as a source of creating valuable resources for the firm (Wu, 2008) allows people to benefit from their relationship with other individuals (Uzzi and Lancaster, 2003). Social networks are becoming important for enhancing a firm's competitive advantage, and that makes the social capital-performance relationship an interesting prominent research topic (Wu, 2008; Andersson et al., 2002; Koka and Prescott, 2002; Uzzi and Gillespie, 2002).

The first and overall contribution of this dissertation is a comprehensive view of the role of social capital on performance in family firms. Through the two studies, a deeper understanding is gained of how family social capital affects firm performance. This dissertation extends the application of social capital theory to include the RBV perspective into the discussion of family social capital. Using the RBV framework, the two models focus on social capital as a resource of the firm, which can bring competitive advantage to the family firm.

The second contribution of this dissertation is disentangling the three dimensions of social capital in family firms, and studying the relationship between relational social capital and firm performance through external social capital. Studying how the three dimensions of family social capital have an intertwined relationship is a contribution of the first study. Also studying the role of internal and external social capital jointly in the family firms gives us a comprehensive model of both types of social capital in family firms. Finally, the role of family firm identity is examined. As defined earlier, family firm identity is a variable that shows the degree to which family identity and firm identity overlap (Eddleston, 2011). We argue that family firm identity is the family variable that binds structural and cognitive social capital, and also the internal and external social capital in family firms.

The third contribution is a comprehensive view of social capital in the context of family business. Studying the effect of family social capital on firm performance through innovativeness is a central contribution of the second study. Also examining the role of environmental munificence is the key contribution of this study; i.e. how munificence moderates the relationship between innovativeness and performance. Finally, the role of family variables is the essence of the second essay. This gives us a complete understanding of social capital in the family firm considering how opportunities in the industry can impact firm performance through innovativeness. This is a broad overview for understanding social capital in family firms.

Road map

We begin by reviewing literature on social capital theory and resource-based view of the firm (RBV) and specifically their application in the family business research. Next, the conceptual models of both studies are presented separately, followed by a description of each model and hypotheses developments. Then, the methodology of this research is discussed including the sample, design and procedures. Operational definition of each construct is provided, followed by its items and how it is measured in this dissertation. Data collection and characteristics of the data used in this research are provided next. The results section then presents how the data is analyzed for each model and whether the hypotheses for each model are supported or not. The discussion of results is presented followed implications for future research. And finally, concluding remarks are presented.

CHAPTER 2

THEORETICAL BACKGROUND

In this section, a theoretical definition of family business is provided first. Next, social capital theory is explained in general, followed by more specific literature on social capital theory in family business. Social capital is a broad theory and many have called it an umbrella concept (Hirsch and Levin, 1999). Therefore, based on the context of the models in this dissertation, social capital theory is the framework that is used to explain the models. Then, it is followed by an explanation of resource-based view of the firm (RBV), which is a framework most in line with purposes of this dissertation because of its focus on firm resources for gaining competitive advantage. Building on RBV and based on the context of family firms, *familiness* is introduced and explained as the most appropriate framework to build the arguments in the family business domain.

The first question to answer is: *what is a family business?* Lack of consensus is an indicator that there has been much effort towards a generally accepted definition (Litz, 1995). Since there are many different definitions provided for family business and because of the ambiguity and inconsistency, it is important to address this question first (Desman and Brush, 1991; Upton, Vinton, Seaman, and Moore, 1993). One thing most scholars agree on is that family involvement is the primary element of family business (Miller and Rice, 1967). Most of the time, family involvement is defined as ownership and management (Handler, 1989), but Churchill and Hatten (1997) interpret involvement as not only ownership and management but also having a family successor. Even when it comes to family firms deciding about their own nature, they are not consistent (Chua, Chrisman, and Sharma, 1999).

Definitions based on family involvement (management, ownership, governance, and succession) can be operationalized easily, but confusion appears when one of the two firms with the same level of family involvement considers itself a family business and the other doesn't (Chua et al., 1999). Chua et al. (1999) shows that though family involvement elements may be used for a population of study, a clearer distinction must be made to distinguish a family business from a non-family business. Hence, there is a need to have a clear definition of family business to be used in theory and practice and for the purposes of this dissertation.

Here the characteristics of some of the well-known definitions of family business are shown, and finally the most comprehensive definition is chosen. The definitions include three combinations of ownership and management:

(A) Family owned and family managed;

(B) Family owned but not family managed; and

(C) Family managed but not family owned.

All definitions consider combination (A) as a family business. But some scholars disagree about whether combinations (B) and (C) are family businesses. According to Chua et al. (1999) regarding family business definition, most scholars prefer combination (B) over combination (C).

Over the past 30 years, the field of family business has progressed in studying how family business is different from non-family business (Chrisman et al., 2009). But the definitions provided for family business (before Chua et al. (1999)) did not capture the uniqueness of family firms. Chua et al. (1999) does not focus on ownership and management of family business, and instead considers the behavior of these firms and how the behavior of family business is distinct from non-family business. In this study, we use the definition of family business provided by Chua et al. (1999, p. 25):

> "The family business is a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families."

This definition considers it sufficient that the family controls the dominant coalition and the family does not need ownership control. This definition is comprehensive, and it includes all the definitions that emphasize the family influence on strategy of the firm (like: Davis, 1983; Davis and Tagiuri, 1985; Donnelley, 1964; Handler, 1989; Pratt and Davis, 1985). But we should remember that while this definition does not exclude any of the other definitions, firms with an acceptable level of family involvement may not necessarily qualify as a family business and it depends on their vision. Therefore, (1) if a family-controlled dominant coalition has shaped the vision that intends to shape (or is being pursued) a new vision, and (2) the intention is potentially sustainable across generations, the business is a family business. If either of the conditions is not met, the business is not a family business (Chua et al., 1999). In conclusion, Chua et al. (1999) empirically tests and shows that involvement variables are weak predictors of family firm behavior and should not be used alone (and without theoretical background) on behaviors that distinguish family firms from non-family firms.

Social Capital Theory

Decades ago, there were disagreements among scholars who have defined social capital. Baker (1990) defines social capital as the structure of relationship networks, while Putnam (1995) not only includes structure of relationships, but also includes the actual or potential resources that can be accessed through networks. According to Adler and Kwon (2002), social capital of a collectivity "is in its internal structure – in the linkages among individuals or groups with the collectivity and, specifically, in those features that give the collectivity cohesiveness and thereby facilitate the pursuit of collective goals" (Adler and Kwon, 2002, p. 21). For the purpose of this research, we use the Nahapiet and Ghoshal (1998) definition of social capital which follows:

"The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network" (Nahapiet and Ghoshal, 1998, p. 243). In other words, social capital is a valuable asset based upon relationships among people, organizations, communities, or societies. Social capital is defined as "resources embedded in a social structure that are accessed and/or mobilized in purposive actions" (Lin, 2001, p. 75).

Social capital initially appeared in community studies related to networks of strong personal relationships created over time to provide trust, cooperation and collective action in communities (Jacobs, 1961). Since its first appearance, the role of social capital has been investigated in the development of human capital (Coleman, 1988; Loury, 1977, 1987), economic performance of firms (Baker, 1990), geographic regions (Putnam, 1993, 1995) and nations (Fukuyama, 1995).

Kogut and Zander (1996) suggested "that a firm be understood as a social community specializing in the speed and efficiency in the creation and transfer of knowledge". Putnam (1995) states that social capital is not a unidimensional concept, and it has multiple facets that should be studied for understanding social capital. The primary proposition of social capital theory is that networks of relationships include a valuable resource for the conduct of social affairs that give members a credential which entitles them to credit (Bourdieu, 1986; Nahapiet and Ghoshal, 1998). Some resources may be available through connections that their networks provide for them.

Social capital reflects "the character of social relationships within the organization, realized through members' levels of collective goal orientation and shared trust" (Leana and Van Buren, 1999, p.540). Social capital is, by definition, related to values, vision, purpose, and trust, which are all important elements in family firms. Social capital in family firms is deeply embedded in the family and is extremely difficult to imitate for competitors (Dess and Shaw, 2001). Family history makes family social capital inimitable. Therefore, studying social capital theory is significantly relevant in the context of family firms.

According to Nahapiet and Ghoshal (1998), antecedent conditions for creation of social capital in firms are: (1) time (stability), (2) interdependence, (3) interaction, and (4) closure (Arregle et al. ,2007; Nahapiet and Ghoshal, 1998; Pearson et al., 2008). Arregle et al. (2007) and Pearson et al., (2008) argue that these four elements are what family firms do well and this gives them the potential to have highly valuable and more effective social capital compared to non-family firms. Family firms are highly stable and interdependent and have dense interactions and networks. Based on this argument, these four factors are briefly described in this section to emphasize the importance of studying social capital in family firms:

(1) Time (stability)

"Since it takes time to build trust, relationship stability and durability are key network features associated with high levels of trust and norms of cooperation" (Nahapiet & Ghoshal, 1998, p. 257). Social capital is dependent on investing in social relationships, and it needs time to develop and grow (Bourdieu, 1986; Coleman, 1988).

In family firms, there exists a long-term relationship among members that helps build social capital in these firms. The history that family carries over time and the durable relationship between members in family businesses help economic decision making in the firm. Values of the family gradually shape the vision and norms in the family firm as well. Therefore, vision of the business is significantly in line with the personal values, and has developed through dense interaction among members in a family (Lansberg, 1999).

Social capital is a form of capital that accumulates through time and reflects investment in social relations and organization in the history (Bourdieu, 1986;

Granovetter, 1992). All forms of social capital rely on the social structure to be stable and continuously active; therefore, time is an important factor in development of all dimensions of social capital. Coleman highlights the importance of time and continuity in social relationships and Misztal (1996) emphasizes the influence of stability of social relations on the clarity of mutual obligations. Also, commitment to stability facilitates other processes which are necessary for development of social capital: interactions, interdependence, and closure (Nahapiet and Ghoshal, 1998). For a family business, the main objective is almost always the stability of the family in the firm. It takes a significantly long time for family firms to undergo a change and it shows that the ownership of family firms is more stable (Arregle et al., 2007).

(2) Interdependence

Interdependence is when a group of people share interests and have similar goals and objectives (Gersick et al., 1997). According to Nahapiet and Ghoshal (1998), high interdependence leads to creation of social capital in the firm. And based on the argument made by Coleman (1990), the reverse also holds, meaning that if individuals are not dependent on each other, social capital diminishes after some time.

We expect this relationship to hold in family firms because of the internal relationship of members and their history. Family firms are naturally more dependent upon each other and it means that members of these firms are more interdependent. Leana and Van Buren (1999) argued that when members of an organization are interdependent in taking actions, it leads to higher and more effective social capital and organizational capabilities.

According to Coleman (1990), if people become less dependent on each other, social capital becomes eroded and deteriorates after some time, and this situation mostly affects the relational dimension of social capital. In other words, when people rely on sources other than members of their organization, the expectations and obligations become less significant, which translates to relational social capital. Interdependence has a key role in the organization. Follet (1949) suggests that for testing a business, you have to know whether the business with all its parts are so coordinated, linked, interlocked and interrelated that they make a working unit rather than several separate pieces working together.

Organizations try to increase the circle of exchanges among their members to increase social identification and norms of cooperation (which are dimensions of social capital) (Coleman, 1993; Moran and Ghoshal, 1996).

(3) Interaction

Interaction is the quantity, quality, and strength of the relationships between members of a group (Pearson et al., 2008). Bourdieu (1986) introduces interaction as a factor that forms social capital in the organization, and is a necessary element for preserving social capital. Interaction is stronger in circumstances with high levels of social ties and relationships among the members.

Emergence of interaction helps build and strengthen the social relationships, but for the social relationship to survive, interactions should be maintained (Nahapiet and Ghoshal, 1998). Social capital is a unique form of capital in that the more you use it, the more it becomes. Therefore, for having dense social capital, interaction is an essential element (Bourdieu, 1986). Especially, cognitive and relational dimensions of social capital increase when the linkages are strong and mutual. According to Boland and Tenkasi (1995), it is through action within communities of knowing that we make and remake both our language and our knowledge. In other words, interaction is necessary for common language to develop and facilitate the creation of social capital.

In the family firms where a goal of the business is beyond wealth creation, members rely more on social structure, interaction and interpersonal relations to operate in the firm. Members in family firms are continuously interacting, and they have ties even after their working hours, which leads to higher interaction and development of social capital. “Frequent and close social interactions permit actors to know one another, to share important information and to create a common point of view” (Tsai & Ghoshal, 1998, p. 465).

(4) Closure

Closure is the degree to which boundaries exist which prevents external influences and focuses on internal matters like management activities and decision making (Pearson et al., 2008). Closure results in dense social capital (Nahapiet and Ghoshal, 1998). Closure develops boundaries of social networks and the uniqueness of a social capital context. Norms, trust and identity are developed through closure (Coleman, 1990). Therefore, closure of social networks is necessary for the emergence of social capital.

The following actions lead to high closure based on Pearson et al. (2008):

(1) involving children in the business at early ages;

(2) keeping the founder and older generations actively involved in the business; and (3) maintaining ownership and management of the firm following family bloodlines.

According to the argument by Arregle et al. (2007), family firms have significantly strong closure. A good example of high closure is the so-called “in-cluster” family firms. According to Birley (2001), these are the firms that have strong internal focus and dense social capital. Closure is conducive to the development of high levels of cognitive and relational social capital. Strong networks have a system of dense social capital, and they have "identities that separate and a sense of sociological boundary that distinguishes members from nonmembers” (Etzioni, 1996; Bourdieu, 1986). Coleman (1990) and Ibarra (1992) have shown that network closure helps facilitate development of norms, identity, and trust. Also, the development of unique shared language is facilitated by network closure (Boland and Tenkasi, 1995). In formal organizations, a measure of closure is defined by legal, financial and social boundaries (Kogut and Zander, 1996). According to Leana and Van Buren (1999), closure is rarely achieved in non-family firms and social capital may not emerge in these firms without sufficient closure.

After understanding how social capital is developed in firms, we discuss dimensions of social capital. Nahapiet and Ghoshal (1998) recognized three dimensions of social capital: structural, relational, and cognitive. Structural social capital is the overall pattern of connection between actors (Burt, 1992) including: network ties (Scott, 1991; Wasserman & Faust, 1994), network configuration or morphology (Krackhardt, 1989; Tichy, Tushman, and Fombrun, 1979) (e.g. density, connectivity, and hierarchy) and appropriable organization. Relational social capital is about the particular relations people have that influence their behavior (respect and friendship) including: trust and trustworthiness (Fukuyama, 1995; Putnam, 1993), norms and sanctions (Coleman, 1990; Putnam, 1995), obligation and expectations (Coleman, 1990; Granovetter, 1985) and identifications (Snehota and Hakansson, 1995). Finally, cognitive social capital is defined as resources that provide shared representation and interpretation (Cicourel, 1973). These resources include shared language and codes (Arrow, 1974; Cicourel, 1973; Monteverde, 1995) and shared narratives (Orr, 1990).

a. Structural Social Capital

Nahapiet and Ghoshal (1998) define the structural dimension of social capital by its encompassing elements: network ties, network configuration, and network appropriability. Network ties refer to connections among members of an organization. Importance of network ties is the significant influence they have on information transfer (Krackhardt and Hanson, 1993), organizational learning (Fisher and White, 2000), and implementing organizational activities. If employees are connected through network ties, they might transfer their knowledge within the organization (Coleman, 1990), which leads to better performance in organizational activities. When employees know each other in the organization, efficiency of organizational tasks is expected to increase.

Besides network ties, other structural aspects of networks are also important. The overall configuration of ties in an organization is an important factor. Both formal and informal networks change the overall configuration of ties (Ibarra, 1992). Transfer of knowledge and information within an organization is based on these characteristics, and these attributes are above and beyond just simple connections between individuals (Krackhardt and Hanson, 1993; Seibert et al., 2001).

Finally, the last factor is network appropriability, which can affect how knowledge flows within networks (Nahapiet and Ghoshal, 1998). Network appropriability is how easy or difficult relationships can be transferred within a network. Networks that are created and developed for one purpose can be used in several other purposes as well (Fukuyama, 1995; Putnam, 1993). Altogether, the structural dimension of social capital is basically the level to which people in an organization are connected.

b. Relational Social Capital

Based on Nahapiet and Ghoshal (1998), relational social capital is defined through high levels of trust, shared norms, perceived obligations and mutual identification. The definition of relational social capital is close to Granovetter’s (1973) concept of strong ties, in which he suggests strong ties are connections among people that are characterized by trust, reciprocity, and emotional intensity. According to Krackhardt (1992), there are some inconsistencies among researchers about how to define relational social capital and what factors to include in the definition, but what is clear is that the relational dimension includes the interpersonal connections that are affective in nature (Krackhardt, 1992). Relational social capital is basically affective relationships among employees in which individuals like each other, trust one another and identify with one another. Groups in which members like each other and trust one another are more flexible, are better able to adapt to the environment, and perform higher than other workgroups (Krackhardt, 1992).

Factors that drive interpersonal trust are belief in good intentions, openness, competence, and reliability of another party (Mishira, 1996). Trust makes resource exchange, communication and cooperation easier among individuals (Jones and George, 1998; Misztal, 1996; Putnam, 1993; Tsai and Ghoshal, 1998). According to several researchers (e.g. Bouty, 2000; Jones and George, 1998), high levels of trust lead to more innovation, increased teamwork and better organizational functioning.

When individuals have strong ties, they often identify themselves in terms of their group membership. The more people identify themselves as group members, the higher the level of communication, cooperation and activities within groups (Campion, Papper, and Medsker, 1996; Kramer, Brewer, and Hanna, 1996; Wit and Wilke, 1992). In other words, relational social capital describes how individuals in organizations like and trust each other and identify themselves as group members.

c. Cognitive Social Capital

It can be said that the closest construct resembling cognitive social capital was first introduced by Weick and Roberts' (1993) concept of "collective mind". According to Nahapiet and Ghoshal (1998), when individuals share the same language and exchange shared narratives, employees mutually understand each other. One of the necessary elements for individuals to transfer knowledge, share information, discuss problems, and help each other is the shared language and shared narratives among them (Klimoski and Mohammed, 1994; Nahapiet and Ghoshal, 1998).

Shared language is the tool that helps members of an organization to effectively communicate (Boisot, 1995). Using the same language, individuals can help each other through sharing knowledge and information more effectively. Shared narratives are the myths, stories, and metaphors that members of an organization communicate to each other (Nahapiet and Ghoshal, 1998). These shared narratives help individuals in an organization to understand their experiences in a common way. Both shared language and shared narratives help increase the level of communication among members in an organization. Also, cognitive social capital helps increase mutual awareness and decrease the number of unexpected behaviors of organizational members (Weick, 1995). In simple words, cognitive social capital addresses the degree to which employees share a common language and narratives.

Altogether, social capital with its three dimensions (structural, relational and cognitive) helps facilitate communication among members in an organization. While the structural dimension is about the connection among employees, the relational dimension studies the quality or nature of these connections, and the cognitive dimension addresses the level to which individuals share a vision or perspective and if they truly understand one another (Bolino et al., 2002).

With the family business field emerging in the past decade, one of the most important forms of social capital is known to be family social capital. Family social capital is described as “one of the most enduring and powerful forms of social capital” (Arregle et al., 2007, p. 77). Family has a very unique social network in which each member can have social relationships with other members. Organizational social capital, on the other hand, describes a resource that represents the character of social relationships within a firm, and helps firms have access to external resources and facilitate internal coordination. In general, family social capital (which leads to organizational social capital in family businesses) can be a competitive advantage for family businesses.

There are several perspectives through which family business has been studied in recent years. One of the important perspectives that has been highlighted by several scholars is the strategic management view (e.g. Ward, 1987; Harris, Martinez and Ward, 1994; Wortman, 1994; Sharma, Chrisman, and Chua, 1997). Competitive advantage is the focus of strategic design, and for addressing competitive advantage, we describe how we use RBV in the social capital context of family business.

Resource-based View of the Firm

Resource-based view (RBV) of competitive advantage examines the link between a firm's internal characteristics and performance (Barney, 1991). This model has two main assumptions: first, that the firms within an industry (or group) may be heterogeneous regarding the resources they control, and second, that the resources may not be mobile across firms and heterogeneity can last long. RBV explains the implications of these two assumptions for analyzing sources of competitive advantage.

First, what is considered to be a *firm resource*? Barney (1991) states that "firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (Barney, 1991, p. 101; Daft, 1983). There are three categories of firm resources: physical capital resources (Williamson, 1975), human capital resources (Becker, 1964), and organizational capital resources (Tomer, 1987). Physical capital resources are the physical equipment used in a firm (plant, location, raw materials). Human capital resources are the skills, intelligence, training, and experience of individuals in a firm. Organization capital resources are a firm's formal reporting structure, planning, controlling and coordinating systems alongside informal relations within a firm and between the firm and the environment.

What are *competitive advantage* and *sustained competitive advantage*? A firm has a competitive advantage when it is implementing a value creating strategy that is not being implemented by any current or potential competitors. Sustained competitive advantage is when the firm has a strategy that is not being implemented by any current or potential competitors, and on top of that, other firms are unable to duplicate the benefits of that strategy (Barney, 1991).

According to the resource-based view of the firm, successful organizations have resources and abilities that give them advantages over their competitors. Resources that are rare, valuable, inimitable, and non-substitutable give firms unique capabilities for being successful (Barney, 1986; 1991). According to Barney (1991), it is necessary for a firm to have the following four resource attributes to gain the potential for sustained competitive advantage:

1. They must be valuable: enabling the firm to exploit opportunities and/or neutralize threats.
2. The resources must be rare: among the current and potential competitors.
3. They must be imperfectly imitable.
4. There should not be any equivalent substitute for these resources.

The framework most widely associated with the use of resources in an entrepreneurial context is the resource-based view of the firm (Barney, 1991). RBV is considered a firm-level theory, but the underlying level of analysis of this theory is individual resource which gives this framework a unique characteristic (Foss and Knudsen, 2003). Emergence and broad application of RBV suggests that the importance of resources for family firms is not any exception to this rule.

Family resources and especially family social capital are important factors in developing social capital in family firms (Arregle et al., 2007). Therefore, understanding what factors strengthen family social capital helps us understand the nature and development of organizational social capital in family firms. According to Arregle et al. (2007), there are several factors that drive family social capital. These factors include how the family endures through several generations and time (stability), how much interaction exists among family members (interactions), how family member share similar goals (interdependence), and how dense is the family network (closure). Linking family social capital to organizational social capital and studying the advantages of social capital in family firms give us a broad understanding of how social capital, as a valuable resource, affects the family firm.

Familiness

Habbershon and Williams (1999, p. 128) state: ". . . if we believe that family managers are a competitive advantage to family firms, then we must determine (1) what type of resource they are, and (2) under what conditions they add value". Family firms have very unique resources such as (Pearson et al., 2008):

1) Family history is imperfectly imitable;

2) Decision making in family firms is socially complex;

3) Families operate with embedded routines that create causal ambiguity.

Habbershon and Williams (1999) stated that RBV is a proper framework for studying family firms and understanding competitive advantage in these firms. A relatively new but important concept for understanding family business is “familiness”. Building on RBV, the concept of *Familiness* is introduced by Habbershon and Williams (1999, p. 129) as the family business resources of a firm, or “the unique bundle of resources a particular firm has because of the systems interaction between the family, its individual members, and the business”. The concept of familiness helps uncover some of the distinctive qualities of the family businesses that are not recognizable otherwise (Frank, Lueger, Nose and Suchy, 2010). Regarding the scope, for the familiness framework, there is no definitional distinction needed, and it applies to all different forms of family firms (Habbershon and Williams, 1999).

Since this concept was initially introduced, it has made several contributions in understanding family businesses (Frank et al., 2010). The focus of this dissertation is specifically on the social capital approach to familiness. Building on the familiness work of Habbershon and Williams (1999) with focus on RBV, social capital has been taken as a framework model “..to identify the unique behavioral resources and capabilities of family firms..” (Pearson et al., 2008, p. 950). Social capital theory has been used to understand the concept of familiness more thoroughly in those areas where RBV considers as “black box of familiness” (Pearson et al., 2008, p. 952). According to Hoopes, Madsen and Walker (2003), when studying specific behavioral and social aspects of family firms, RBV is not precise and exact enough. The three dimensions of structural, cognitive and relational social capital have impacts on family business capabilities and goals (Pearson et al., 2008). Family social capital helps develop social capital in the organization, and it adds a valuable resource of competitive advantage to the firm.

Familiness is a term that captures the distinctiveness of family firms (Habbershon and Williams, 1999). Several authors have used social capital literature to have a clearer understanding of the resources and capabilities in family firms (Arregle et al., 2007; Hoffman et al., 2006; Pearson et al., 2008; Sorenson, Goodpaster, Hedberg and Yu, 2009).

In this dissertation, social capital theory is used as the umbrella theory for both studies. The reasoning is that resources of the firm are being investigated, and are mainly focused on the social capital perspective of familiness (built on social capital theory and RBV). The next chapter depicts the conceptual models of the both studies followed by hypotheses development in each section.

CHAPTER 3

HYPOTHESES DEVELOPMENT

In this section, the conceptual model of each study is presented, followed by hypotheses development. Applying social capital theory, we develop hypotheses and investigate the advantages that unique resources of family firms introduce to family business.

Study 1

In study 1, the social capital of family firms is examined as a multi-dimensional construct. First, we study how structural and cognitive family social capital help generate relational family social capital. By doing this, we argue that quantity and quality of relationships among family members in firms lead to relational social capital among them. Also, the role of family firm identity is studied on the relationship between structural family social capital and cognitive family social capital.

Afterwards, the relationship between relational social capital and firm performance is studied through network mobilization. We argue that when people trust and like each other, they are willing to work together from inside and outside the firm to perform better in a family firm. Therefore, network mobilization is introduced as the mediator for the relationship between relational social capital and performance of the firm. Finally, we argue that when people trust each other in firms with higher family firm identity -- the degree to which a firm perceives family as integral to itself – they are more likely to connect to outside networks to bring value to the family firm.

Figure 1 shows the conceptual model of this study followed by hypotheses development.

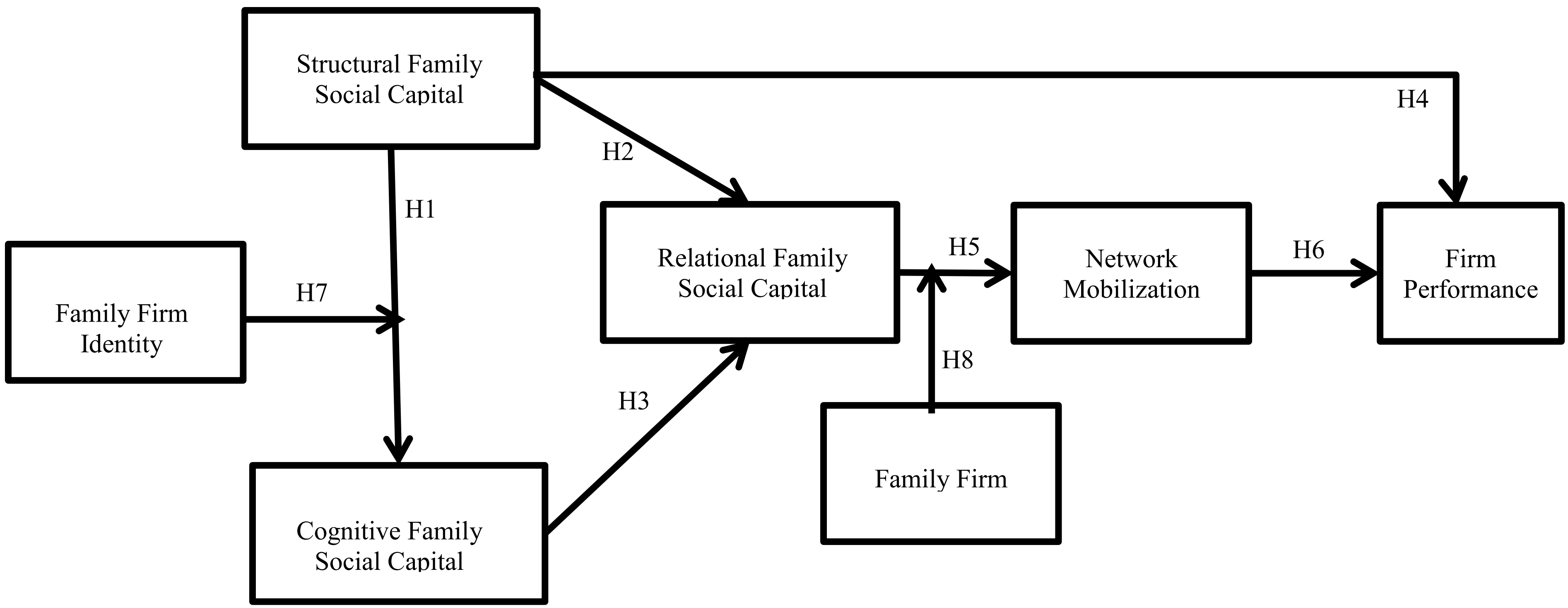

Figure 1. The conceptual model for study 1

Structural social capital refers to the connections among members of an organization, the overall configuration of ties in the organization, and how easy or difficult relationships can be transferred within a network. Cognitive social capital, as defined earlier, is the extent to which members of an organization share mutual language and common assumptions (visions, interests, and working techniques). The value of cognitive social capital is regarded as the most novel contribution of social capital theory. For individuals to share common language and similar vision, they need to have developed existing connections and relationships with other members. Once the connections are developed among members, the quality of their relationship begins to expand. In family firms, there are pre-existing networks among family members, and with that, they have the advantage of developing shared values and visions more effectively.

Individuals have to have interactions with each other first, to develop norms and common vision and language and even trust. Thus, Structural social capital is an antecedent to both relational and cognitive social capital (Tsai and Ghoshal, 1998). Therefore, we argue that structural family social capital has a positive relationship with cognitive family social capital. Based on these arguments, the following hypothesis is presented:

Hypothesis 1-1: Structural social capital of family has a positive relationship with cognitive social capital of family.

On one hand, open communication and honest conversations, familiarity, interactions, shared experience and kinship ties are the basis of trust in family firms

(Sundaramurthy, 2008). On the other hand, lack of cohesion or emotional perspective can increase the relational conflict between family members (Bjomberg and Nicholson, 2007; Kellermanns and Eddleston, 2004) which can take the trust away from members of a family.

Development of trust inside family firms is highly influenced by structure and strength of ties that already exist among family members and the relationship in family can be transferred to the firm (Cabrerra-Suarez et al., 2015; Arregle et al., 2007; Carr et al., 2011). Similarity in values and goals help the members to behave according to those values and that ultimately benefits the business. Open communication between family members leads to trust between members of the family firm (Lau and Cobb, 2010).

We argue that strong social capital in the family strengthens value and goals, and helps the norms to be easily transformed to like and trust, and be shared by all members of the family firm. This homogeneity among the members increases the level of trust (relational social capital) (Cabrerra-Suarez et al., 2015). Shared language and vision leads to collective trust and minimizes the opportunistic behavior for members of the firm (Ouchi, 1980). Based on these arguments, we present the following hypotheses:

Hypothesis 1-2: Structural social capital of family has a positive relationship with relational social capital of the family.

Hypothesis 1-3: Cognitive social capital of family has a positive relationship with relational social capital of the family.

The primary concept of social capital theory is that network ties provide organizations with access to resources and information. Structural social capital brings valuable resources of information and knowledge advantage to the firm. As Nahapiet and

Ghoshal (1998, p. 252) put it “who you know affects what you know”. Social relations usually carry information channels that help gathering information and reduce time, effort and investment for collecting useful information (Cole, 1998).

There are three information benefits occurring because of social relations: access, timing and referral (Burt, 1992). Access highlights the role of networks in providing an efficient information screening and distribution process for members of the network. Timing is taking advantage of the personal contacts to provide information sooner than it becomes available to other people who are not members of this network. Timing becomes important mostly in marketing research and development and could well be a factor in determining success and performance. And finally, referrals are providing information of potential opportunities to members of the network. Referral can lead to influencing the value of opportunities and success of the firm.

A member of a network with rich information benefits has contacts in places where there are useful information and potential advantageous opportunities. Having social ties with such people helps firms have access to valuable information that can eventually lead to success and better performance for the network. Structural social capital represents the social capital that consists of a network of ties among members and can influence access to information and the range of information that may become available to the network. We argue that higher levels of structural social capital leads to access to opportunities which then leads to better performance for the family firms. Based on the above arguments, we present the fourth hypothesis of study 1:

Hypothesis 1-4: Structural family social capital has a positive relationship with performance of the family firm.

The relational dimension of social capital in family firms links the resources in the family to capabilities that these relationships bring to the firm. Shared norms and trust in firms help mobilize the external networks (Lin, 1999). Trust is necessary for people to work together on common tasks (Leana and Van Buren, 1999). Without trust it is unlikely they will agree upon issues and assure collectivfe actions with other members of a firm or people from outside the organization.

Leana and Van Buren (1999) argue that trust helps create a groundwork for individuals to meet their collective needs. Therefore, relational social capital in family firms ensures that people can work collectively and use the resources from inside and outside the organization to benefit the family firm. Based on this argument, we posit the fifth hypothesis of this study:

Hypothesis 1-5: Relational social capital of family firms has a positive relationship with network mobilization of the family firm.

Chua et al (1999, p. 25) argues the importance of value creation for families in the following statement: “The family business is a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families”. Family firms, by definition, pursue both economic and noneconomic outcomes. The importance of value creation for family firms is the motive behind the last hypothesis of this study, which introduces performance as the dependent variable.

Network mobilization, or bridging, is the degree to which top management team of the firm has outside connection with the environment and can access potential resources from outside the organization. The primary role of bridging is to link the firm to the external environment. Managers with higher level of connections have faster access to resources and information, which can result in better financial outcomes.

Network mobilization can serve as a medium for communication between firm and the environment (Hillman et al., 2000; Carpenter and Westphal, 2001). Firms can use experiences of other firms for implementing new strategies and how to deal with uncertainty. Network mobilization has shown to have outcomes such as flow of successful strategies between firms (Burt, 1987; Shipilov et al., 2010) for gaining access to opportunities (Carpenter and Westphal, 2001).

In line with the described arguments, the final hypothesis of this study is regarding the relationship between network mobilization and family firm performance which is presented below:

Hypothesis 1-6: Network mobilization of family firms has a positive relationship with performance of the family firm.

As we discussed in hypothesis 1, when members of a family firm have strong connection and high interaction, they start to shape similar language, common values and norms. If members of the family perceive success of their family equal to success of their family, they try harder for success of the firm to keep the reputation of their family high. As defined earlier, family firm identity is a variable that shows the degree to which family identity and firm identity overlap. We argue that in families where family members have high levels of family firm identity, they take advantage of the social interactions they have with other family members to shape common values and norms.

Based on this argument, we propose that family firm identity positively moderates the relationship between structural family social capital and cognitive family social capital. This leads to development of the seventh hypothesis of study 1:

Hypothesis 1-7: Structural social capital of the family firm has a stronger relationship with cognitive social capital of the family firm when family firm identity is high than when it is low.

When a family has strong bonding and trust among members, if the firm has a strong family firm identity, owners of the business work harder to meet the needs of the family and the firm (Pearson et al., 2008). When family firm identity is high and trust exists among members of the firm, owners try to work collectively to help both family and the firm (Uhlander et al., 2015).

Family firm identity is considered as a moderator for the relationship between trust and network mobilization in this study. It means that when family is embedded in the business managers, it helps enhance the advantages of cohesiveness and trust towards network mobilization (Uhlander et al., 2015). These observations lead to development of the following hypothesis:

Hypothesis 1-8: Relational social capital of family firm has a stronger relationship with network mobilization of the family firm when family firm identity is high than when it is low.

Study 2

In study 2, innovativeness is the central framework that mediates the relationship between family social capital and firm performance. Showing how family social capital creates value in family firms through innovativeness is a key aspect of this study.

When considering innovativeness, as an element of willingness to bring change into the organization, the external environment of the firm should be studied too. Innovativeness is more beneficial to family firms when the external environment provides opportunities for growth to the firm. Therefore, we argue that environmental munificence, which is the extent to which the environment can sustain the developed growth, moderates the relationship between innovativeness and firm performance.

Finally, the extent to which family members are involved in management of the family firm is also an important factor in performance of the firm. The more the family members are involved in management and decision-making, the more the network of their relationships becomes noteworthy in the firm. Therefore, we argue that family management involvement moderates the relationship between family social capital and firm performance.

Figure 2 shows the conceptual model of this study, followed by hypotheses development.

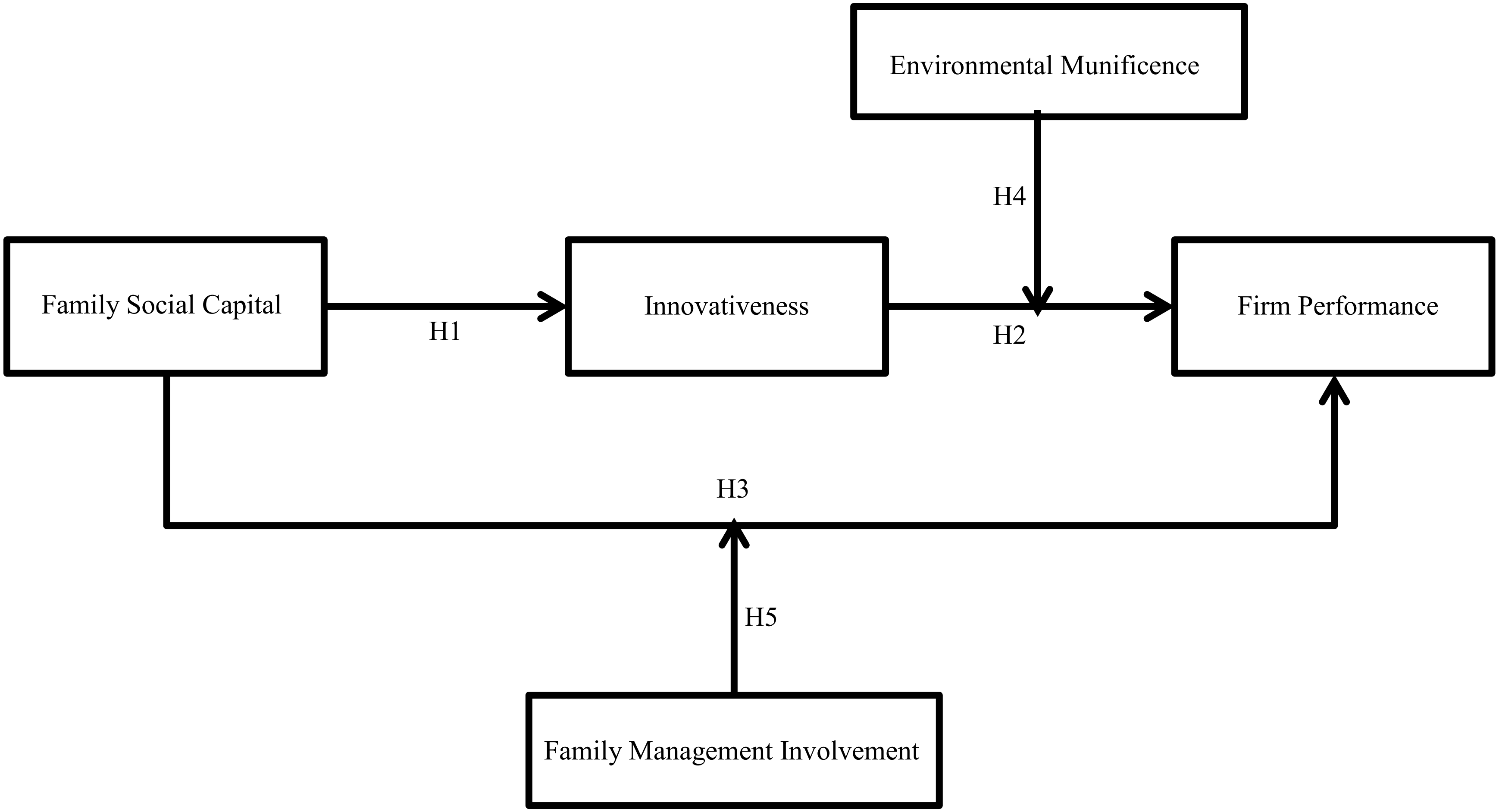

Figure 2. The conceptual model for study 2

Innovativeness is defined as “a firm’s tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes” (Lumpkin and Dess, 1996, p. 142). Innovativeness has been an interesting topic for scholars from different fields of study. Researchers have recently begun to focus on the necessity of being innovative for family firms (Naldi et al., 2007). Since family firms have a unique sets of norms, cultures, and processes that may not be found in non-family firms, studying innovative behavior in these firms is important and interesting (Kellermanns, Eddleston, Sarathy, and Murphy, 2012).

Some family firms avoid the risk of failure, and for them, maintaining family control is a higher priority than innovating (Gomez-Mejia et al., 2007). Some of these characteristics of family firms make the pursuit of innovation quite complex (Gomez-Mejia et al., 2007). While family firms are often assumed to be less innovative than non-family firms (Vago, 2004), the family influence and familiness can help family firms to benefit from innovativeness. Recently, a more complex view of family firms’ attitude towards change has been revealed (Gomez-Mejia et al., 2007; Naldi et al. 2007; Zahra, 2005), and more scholars have started acknowledging the innovativeness of family firms. Social capital created by familiness (Arregle et al., 2007; Habbershon et al., 2003) has been identified as a unique family-based characteristic that help family businesses to engage in innovative behavior (Gomez-Mejia et al., 2007).

At the organizational level, social capital enhances organizational innovativeness by facilitating flow of information in the firm (Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998). Social capital in firms provides the firm with productive resources to help transform innovative ideas into profit (Adler and Kwon, 2002; Pfeffer and Salancik, 1978). Therefore, innovativeness is argued to be the mediator of the relationship between family social capital and firm performance. Social capital shows the firm's ability to take advantage of the relations inside the firm. These benefits include access to resources, knowledge and business opportunities (Inkpen and Tsang, 2005). Internal social capital in family firms consists of networks, trust and common vision among family members that are internalized and remain with both the family and the firm. According to Yli-Renko et al. (2002), social capital facilitates development of a knowledge base and helps create organizational advantage. Because social capital includes networks, norms and trust, it is of great importance for family firms in which these social relations are well-developed. Social capital is positively associated with strategy for innovative products (Hsieh and Tsai, 2007). High levels of trust are shown to stimulate innovation (Knack and Keefer, 1997) and exchange of ideas in the organization helps grow product innovation.

More specifically, here we look at the three dimensions of internal social capital:

a) Regarding structural social capital, the social ties give access to knowledge and increase the speed of information exchange (Granovetter, 1973; Burt, 1992, 1997). Therefore, the network structure and number of ties influence the creation of innovations (Nahapiet and Ghoshal, 1998).

b) Firm members who trust each other more are willing to share their knowledge and cooperate with each other. These relationships help raise benefits for the firm (Coleman, 1988, 1990).

c) Regarding cognitive social capital, shared language and norms help the information exchange process. Mutual understanding and knowledge creation in the form of innovation comes as a result (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998).

There are many studies that show the positive relationship between social capital and innovation in the firms (e.g., Nahapiet and Ghoshal, 1998; Tsai, 2001; Moran, 2005; Rost, 2011). In conclusion, high amounts of social capital provide access to knowledge transfer and that leads to innovation activities. Confidence, mutual respect and a shared vision among family members in the firm helps promote innovativeness. Social capital helps the flow of information in the organization. Through an increased number of network ties with high quality (which is what is present in family businesses), family firms have access to networks through which they can transfer knowledge and skills and it leads to higher level of innovativeness. Built on these arguments, the first hypothesis of study 1 is presented as follows:

Hypothesis 2-1: Family social capital has a positive relationship with innovativeness of the family firm.

A culture that supports implementation of a strategy is inimitable and can be a source of sustainable competitive advantage (Barney, 1986). The adoption of innovation is intended to help performance and effectiveness of the firm (Damanpour, 1991), which translates to the achievement of organizational goals and profitability and growth in sales. According to RBV, development of new products/services and processes help gain competitive advantage. Innovation is a way for the organization to make changes. Environments evolve, and firms must adopt innovativeness over time to allow for competitive advantage and higher performance (Porter, 1990).

Referring to Brown and McDonnell (1995), we argue that businesses should improve their products and services to remain successful in the market and for that, they need to meet the innovation processes. Several studies in different industries have concluded that innovativeness has a positive effect on business performance (Noruzy et al., 2013; Raymond et al., 2013).

Innovation helps to renew companies, enhance their competitive advantage, spur growth, create new employment opportunities and generate wealth (Hayton and Kelley, 2006). Therefore, here we argue that innovativeness in family firms not only provides a base for competitive advantage, but also makes for improvement in firm performance. Artz et al. (2010) showed that new products (introduction of innovations to the market or innovativeness) are positively related to return on assets and growth. Based on the above arguments, we develop the third hypothesis of this study:

Hypothesis 2-2: Innovativeness of family firms has a positive relationship with the performance of the firm.

Once social capital is established in a family firm, it can contribute to further improvements in the firm such as innovation processes or improved operations. Hence, the influence of social capital in a family firm is extensive and can come in different outcomes. Here we argue that the information and influence benefits of social capital leads to higher firm performance. Family social resources created by the family give the family business a unique competitive advantage (Sorenson et al., 2009).

Based on RBV and the familiness perspective, when a firm has superior resources that are limited, inimitable and resources that cannot be substituted (Barney, 1991; Peteraf, 1993) and there is demand for those resources, this firm has an advantage that can contribute to firm performance (Sorenson et al., 2009). The distinctive social resources that a family firm creates (Habbershon and Williams, 1999; Penrose, 1959) enable the family firm to have social support for the family and the business which contributes to firm performance. Empirical studies show a strong relationship between social capital and financial variables of the firm (meta-analysis by Westlund and Adam, 2010).

Based on Pearson et al. (2008), social capital in the family business leads to capabilities for the family firm (information access and exchange, collective actions). Using RBV, Habbershon and Williams (1999) showed that social capital leads to competitive advantage which leads to enhanced performance and value creation for the firm. Nahapiet and Ghoshal (1998) proposed that organizations with a high degree of social capital are more likely to be successful compared with organizations with a low degree of social capital. Not only the number of social networks is important, but also quality of the relationships matter when it comes to the success of the organization. High quality relationships give organizations a sustainable competitive advantage over their competitors (Nahapiet and Ghoshal, 1998). Also, Leana and Van Buren (1999) discussed how social capital is positively related to organizational employees' commitment, flexibility, and management of collective actions. Through all these, the organization with a higher level of social capital gains more success compared to organizations with lower levels of social capital.

There are several studies that have shown that social capital is positively related to value creation in organizations. These studies range in their level of analysis from individual and small groups (Burt, 1992; Brass and Burkhardt, 1993; Podolny and Baron, 1997) to larger organizations and firms (Walker, Kogut, and Shan, 1997; Tsai and Ghoshal, 1998; Rowley, Behrens, and Krackhardt, 2000) and even communities and countries (Putnam, 1995). This study looks at social capital in the family business context. Researchers argue that social capital is a valuable asset for the family firm because it helps solve problems of coordination, reduces transaction costs, and facilitates the information flow among people (Lazega and Pattison, 2001; Lin, 2001). Following the argument above, we propose the following hypothesis:

Hypothesis 2-3: Family social capital has a positive relationship with performance of the family firm.

Environmental-related variables have been used extensively in the literature in several fields: from strategic management of small firms (Covin and Slevin, 1989), and firm growth (Covin and Slevin, 1998) to market pioneering (Covin, Slevin and Heeley, 2000). As defined earlier, environmental munificence is the environment's ability to support sustained growth of an organization (Aldrich, 1979). It refers to the scarcity or abundance of important resources for firms in an environment. The impact of environmental munificence on organizations includes a broad spectrum of organizational strategies (McArthur and Nystrom, 1991; Koberg, 1987) to processes (Miller and Friesen, 1983). Availability of resources within an environment influences the survival/growth of firms within that environment (Randolph and Dess, 1984).

When resources are plentiful, it is easier for firms to survive, and with that, it becomes easier for them to pursue other goals of the firm (Castrogiovanni, 1991). However, when resources are scarce, competition intensifies, and with that, firm profitability decreases (Dess and Beard, 1984; Castrogiovanni, 1991). When the external environment of firms is munificent, the firms are more likely to use their opportunities and innovativeness to perform better. Environmental munificence is a determinant of firm performance. Therefore, when a family firm is innovative and engages in a munificent environment, we argue the firm performs better:

Hypothesis 2-4: Innovativeness of family firms has a stronger relationship with the performance of the firm when the environmental munificence is high than when it is low.

Family firms vary in the number of family members involved in the decision making of the firm and the amount of authority given to these family members. Family firms are frequently criticized for their family members' limited participation in the management and decision making in the firm (Eddleston and Kellermanns, 2007). But fast-growing and high performance family firms are mostly found to have higher family member participation for developing goals and strategies (Upton et al., 2001).

Firms with the highest number of family members involved tend to "(1) introduce children to the business at a young age; (2) gear their education toward the business; (3) create succession plans based on promoting family members; (4) keep the founder or older generations active in the firm; (5) keep ownership within bloodlines; and (6) build the business in order that it should provide pension benefits for all members of the family" (Arregle et al., 2007, p. 85).

Involving family members in firm management allows the family to have a better understanding of the challenges and make better decisions to have higher firm performance (Eddleston and Kellermanns, 2007). Literature suggests that family firm performance improves when family members are involved in the ownership-management of the firm (Eddleston and Kellermanns, 2007).Therefore, we argue that family firms' involvement in management helps build a stronger relationship between family social capital and firm performance. Based on these arguments, the final hypothesis of this study is presented:

Hypothesis 2-5: Family social capital has a stronger relationship with performance of the family firm when family management involvement is high than when it is low.

Chapter Summary

In this chapter, based on the theoretical background covered in the previous chapter and literature in the field of social capital and family business, two models were presented to study the effect of family social capital on firm performance in family firms. The two models investigate the effect of family social capital on performance through different perspectives: network mobilization and innovativeness. The conceptual models of both study 1 and study 2 were presented, followed by a list of hypotheses and a detailed description of development of hypotheses for both studies.

CHAPTER 4

METHODOLOGY

In this chapter, we examine the research methods and design that are used for testing the hypotheses proposed in chapter 3. The first part of this chapter is a discussion of design and sample of the studies. Next, a detailed overview of measures is provided, followed by proposing a data analysis method to test the hypotheses.

Design and Sample

First, the design and sample of this research is explained. Design of this dissertation is based on survey methodology, which includes descriptive questions, likert-scale ratings and multiple choice questions based on variables for both studies. We list all the measures with their items in this chapter, but first, an overview of the sample is presented.

The sample of this dissertation consists of respondents from small private family firms in the US. Respondents should be one of the key family members and should be running/managing the family firm. For gathering data on family firms, we have utilized the data collection service of Qualtrics to find the specific respondents that fit the purposes of this dissertation. The main criteria for inclusion in the sample of this dissertation were checked based on the following five screening questions at the beginning of the survey:

1. Would you describe your business as a family business?

a) Yes

b) No

2. How many of the family members are directors/owners/managers in this firm?

a) 0

b) 1

c) 2 or more

3. Number of employees

a) 0-100

b) 101-500

c) 501-1000

d) more than 1000

4. Family members hold a .... block of voting share.

a) less than 5%

b) 5% - 9%

c) 10% - 19%

d) 20% - 50%

e) more than 50%

5. Is your business located in the US?

a) Yes

b) No

For each screening question, only the respondents who chose the choice with a check mark symbol were accepted; the rest of the respondents were sent to the end of survey. With the first question, we ensured that members of the family firm perceived their business as a family business. Consistent with the operational definition of family business, only businesses with at least two members of their family owning, directing, or managing the firm were included. The second screening question helped us meet this criterion. Based on the design of this dissertation, one of the criteria of this research is for the family firms to have less than 500 employees. The third screening question ensured us that this criterion is met. According to the most conservative operational definition of family business, we kept the minimum of voting block at 10%. Using a fourth screening question, we ensured that only family firms with at least 10% of the voting block for the family were included. And finally, the context of this dissertation is based on US firms. According to our research design, we did not plan to take cultural diversity into account; therefore we collected data from firms located in the US. And the final screening question ensured us that all the family firms in our sample were located in the US.

Using these five screening questions, we ensured to have a sample of family businesses that perceived themselves as family business, had more than 2 family managers/owners/directors, had less than 500 employees, had a voting block of at least 10%, and were located in the US. Any firm with other characteristic even in one of the screening criteria was automatically sent to the end of survey and excluded from our sample.

Operational Measures

In this section, we provide the operational definition for all the variables that are being used in this dissertation. The first task is to have a solid operational definition for what is called a family firm. As mentioned earlier, following the standard criteria we consider a firm, “family-owned” if these three conditions are met: 1) two or more directors must have a family relationship, 2) firm members should perceive their firm as a family firm (Bammens et al., 2008), 3) family members must hold a substantial block of voting stock (Allen and Panian, 1982; Gomez-Mejia et al., 2003). Some scholars consider 5 percent substantial (Allen and Panina, 1982), while others consider at least 10 per cent (Astrachan and Kolenko, 1994; Gomez-Mejia, Makri and Kintana, 2010). In this dissertation, the more conservative cut-off of 10 per cent has been chosen to determine whether a firm should be included in the sample of family firms or not (criteria 1 and 3 are according to suggestion by Gomez-Mejia et al., (2010)), 4) the family firm should not have more than 500 employees to fit the criteria for small firm, and 5) the family firm must be located in the US.

Financial Performance

Consistent with previous research on family firms, performance is measured by subjective financial performance (Rutherford, Kuratko, and Holt, 2008). Because of two reasons, we decided to use subjective financial performance, rather than hard financial data. First, small firms tend to become reluctant when it comes to reporting their financial performance data (Robinson et al., 1986; Sapienza et al., 1988). Second, directly comparing the objective financial performance of firms in different industries is misleading. And since we have a diverse set of industries in our sample, the second issue became critical. Therefore, following several family business scholars, we use the subjective financial success of the firm. Following Covin (1991), we ask respondents to indicate on a 5-point likert scale: “How much importance does your firm attach to each of the following financial performance criteria?” and we present the following nine financial criteria: sales level, sales growth rate, cash flow, return on shareholder equity, gross profit margin, net profit operations, profit to sales ratio, return on investment, and ability to fund business growth from profits. Then, we ask respondents to indicate on a 5-point likert scale: “Please indicate the extent to which your firm's top managers are currently satisfied with their firm's performance on each of these criteria?” And we present the same nine financial criteria. Responses to these two questions provide us with the information on how much the firm attaches importance to each of the nine financial criteria, and how satisfied they are with their performance in each criterion. Once we have the importance weight and score for each criteria, we multiply the weight by the score for each one of the nine items and execute a weighted average to compute the subjective financial performance of the firm.

Innovativeness

For measuring innovativeness, we used three 7-point likert scale items from Kellermanns et al. (2012):

1. Our firm has emphasized taking bold, wide-ranging action in positioning itself and its products or services over the past 3 years.
2. Our firm has shown a strong commitment to research and development, technological leadership and innovation over the past 3 years.
3. Our firm has focused on leading the industry in introducing breakthrough products to the market over the past 3 years.

These items were originally part of a wider corporate entrepreneurship construct by Miller (1983). Cronbach's Alpha for this measure is 0.75.

Family social capital

Internal social capital of the family is measured using a family business scale developed by Carr et al., (2011). Cronach's Alpha for this scale is 0.94. Also, Cronbach's Alpha for the three dimensions of family social capital was calculated. Structural family social capital has a Cronbach's Alpha of 0.78, relational social capital has a Cronbach's Alpha of 0.91, and cognitive social capital has a Cronbach's Alpha equal to 0.90.

Structural social capital

1. Family members who work in this firm engage in honest communication with one another.
2. Family members who work in this firm have no hidden agendas.
3. Family members who work in this firm willingly share information with one another.
4. Family members who work in this firm take advantage of their family relationships to share information.

Relational social capital

1. Family members who work in this firm have confidence in one another.
2. Family members who work in this firm show a great deal of integrity with each other.
3. Overall, family members who work in this firm trust each other.

4. Family members who work in this firm are usually considerate of each other's feelings.

Cognitive social capital

1. Family members who work in this firm are committed to the goals of the firm.
2. There is a common purpose shared among family members who work in this firm.
3. Family members who work in this firm view themselves as partners in charting the firm's direction.
4. Family members who work in this firm share the same vision for the future of this firm.

Family Management Involvement

Following Kellermanns et al. (2012) scale, we used two items for measuring family involvement:

1. Management control of the company is concentrated in the hands of ….

The choices for this questions are "one family member", "two family members", "three family members", "four family members" and "more than four family members".(Kellermanns et al., 2012).

2. In our family firm, the ownership is concentrated within how many generations of owner family?

The choices for this question are "one generation", "two generations", "three generations", and "four generations".

Environmental Munificence

Environmental munificence as an important environmental factor is measured using a 3-item 7-point likert scale measure by Lin and Shih (2008), which was adapted from Hambrick and Finkelstein (1987) (Cronach's Alpha = 0.75) (1 represents "*strongly disagree"* and 7 represents "*strongly agree"*):

1. Our markets are abundant with profitable opportunities.

2. Our markets are abundant with investment capital.

3. The public sectors offer sufficient support for our industry.

Family Firm Identity

Family firm identity is measured by taking the means to the following five yes/no questions (1=yes, 0=no) (Uhlander et al., 2015): [Items for this construct were presented to respondents before any other constructs, because we need a sample of family firms that also perceive themselves as family firms. Therefore, only those firms were included in the sample where their answer was "yes" to item 4 (would you describe the business as a family business?)]

1. Is there a family relationship among the current owners of the company?
2. Is there a family relationship among the past and the current owners?
3. Does one family have considerable influence on the business strategy?
4. Would you describe the business as a family business?
5. Does the name of the business include the family name?

The first three items are aspects of family involvement, while the last two are more specific to the identity of the family firm (Eddleston, 2011; Uhlander, 2005). The higher scores are related to overall higher family firm identity (0= no family firm identity to 1=strong family firm identity).

Network Mobilization

Network mobilization is measured using ratings for the following three items (7-point likert scale; 1= strongly disagree to 7= strongly agree) (Uhlander et al., 2015):

1. The owners of this business speak enthusiastically about the business with people outside the business.
2. The owners help to expand the business's network by making outside contacts.
3. The owners help to seek out or create new opportunities for the firm.

Cronach's Alpha for this scale is 0.84.

Control Variables

Following most family business studies, size of the family firm, firm's age, industry, voting block, age and gender of the family member as well as his/her education were controlled in this dissertation. Company size, age and industry are the most common controls in both family business and SME research (Carr et al., 2011; Chrisman et al., 2012).

Chapter Summary

In this chapter, we presented the methods, design and sample of this dissertation. We used a survey as the research method to collect data on family firms. A sample of 267 family firms was collected. These firms are small private family firms and the screening criteria were described in this chapter. The measures for variables of both models were detailed followed by the Cronbach's Alpha, which indicated high reliability of measures. Finally, control variables were introduced.

CHAPTER 5

RESULTS

In this chapter, we outline the steps taken to analyze the data. First, we screened the data and cleaned our dataset to remove any missing values or outliers. Then, we checked for assumptions of our data analysis method, and then ran our models. Both studies were analyzed using an OLS regression. We utilized the PROCESS macro version 3 (Hayes, 2017) and directly programmed our models using the PROCESS syntax coding (instead of the traditional preprogrammed models) to customize models based on the conceptual models of this dissertation.

Data Screening

For the pilot, data from 29 respondents were collected via the Qualtrics data collection service. After the pilot, a sample of 305 firms was collected, which was used for both study 1 and study 2. The first step taken in screening data for this dissertation was checking for accuracy. The process of checking for accuracy led us to delete 30 of our respondents. We also checked the dataset for any additional potential issues. Since we had taken care to include several attention questions throughout the survey, we did not find any additional issues. Next, we checked for missing data. Qualtrics enabled us to turn on the “force response” option, which means respondents had to answer all questions to be able to move to the next. Therefore, we did not encounter any missing data issue.

The next step was checking for outliers, or cases that have extreme value on one or more variables. For checking outliers, we used the Mahalanobis distance test (Mahalanobis, 1936). The Mahalanobis distance test calculates the distance of each respondent from the centroid of the rest of cases. We created a separate Mahalanobis score for both of our models, used the chi-square function to find the cutoff point and deleted any values past the cutoff value. We used a threshold of $p<.001$ and degrees of freedom were the number of independent variables in each model. For each model using $p<.001$, the cutoff point was found from the chi-square table, meaning any respondent with a Mahalanobis value past the cutoff was an outlier and was deleted. Out of 275 respondents, 8 had Mahalanobis values of more than cutoff values in total, so we deleted those 8 respondents for a resulting total of 267.

Since we used OLS regression to analyze our data, the next step was to check for the linear regression assumptions, which are: additivity, normality, linearity, homogeneity, and homoscedasticity. Additivity, or the assumption that each variable adds something to the analysis, was the first assumption to check. Additivity is also known as lack of multicollinearity, meaning that we wanted to ensure that our variables are not too highly correlated. As shown in the correlation tables (Tables 1 and 2), we did not have too highly correlated variables, meaning we did not have a multicollinearity issue in our dataset. Checking for normality of the sampling distribution was the next step in our assumption checks. Given the central limit theorem, with more than 30 respondents (Hogg and Tanis, 2009), our sampling distribution becomes very close to normal distribution. Because we had well over 30 respondents, our normality test is robust and we got reasonably accurate statistics. Still, we checked the multivariate normality p-p plot and histogram for residuals, and it showed a normal distribution for both of our models. Also, checking the skewness and kurtosis of all the univariate variables in both our models indicated that all our variables had skewness and kurtosis further less than 3 (which is the cutoff point). Hence, we have a normal sampling distribution and data is not skewed or kurtod. The assumption of linearity was also met, which shows that there is a linear relationship between independent variables and dependent variable. The final assumption is homogeneity and homoscedasticity. In homogeneity test, we checked if all our variables have roughly equal variances. And for homoscedasticity, we checked to see if the spread of variance of a variable was the same across all values of other variables. The scatterplots for both our models were checked, and indicated that all our data points were randomly scattered and the assumptions of homogeneity and homoscedasticity are met.

Once we completed the data screening, and ensured that all the assumptions for regression are met, we started our data analysis with a total of 267 respondents.

Descriptive Statistics

In this section, we report the characteristics of the sample. Table 1 summarizes the descriptive characteristics for the sample of this dissertation as well as characteristics of the respondents. More than 52% of the family firms in our sample reported to hold more than 50% of the voting block, while 34.5% hold between 20%-50% of the voting block, and 12.7% hold between 10%-19%. Close to 45% of the family firms in our sample were in the service industry, while 20.2% were in manufacturing, more than 17% were in retail industry, and about 17% were in other industries. Of 267 firms we collected data from, 105 of them had between 1-10 employees, 54 firms had 11-20 employees, 84 of them had 21-50 employees, and only 24 firms had more than 50 employees.

Of the 267 respondents in our sample, 98 were aged between 25-34, 61 were aged between 35-44, 53 were aged 45-55 and only 29 and 26 respondents were aged less than 24 or more than 55 respectively. Further, 74.9% of the sample was female responders and 25.1% were male responders. More than 41% of the sample held bachelor's degree, close to 32% have some college education but no degree, 12.4% held master's degree, 6% hold doctorate, and 12% have no college education. Information on professional training, entrepreneurial experience, work experience, and industry experience of the respondents was also collected and can be found in Table 1.

Table 1. Descriptive statistics of the sample

	Frequency	Percent
Voting Block		
10% - 19%	34	12.7
20% - 50%	92	34.5
More than 50%	141	52.8
Age		
Less than 24	29	10.9
25-34	98	36.7
35-44	61	22.8
45-55	53	19.9
More than 55	26	9.7
Gender		
Female	200	74.9
Male	67	25.1
Education		
High School or less	12	4.5
Diploma	20	7.5
Some college but no degree	86	32.2
Bachelor’s degree	110	41.2
Master’s degree	33	12.4
Doctorate degree	6	2.2
Professional Training		
Science and engineering	35	13.1
Economics and management	75	28.1
Humanity and art	20	7.5
Law	9	3.4
Medicine	18	6.7
Others	110	41.2
Entrepreneurial Experience		
Start-up experience	140	52.4
Corporate venturing experience	65	24.3
None	62	23.2
Work Experience		
Less than 1 year	3	1.1
1-5 years	84	31.5
6-10 years	64	24.0
More than 10 years	116	43.4

Industry Experience	13	4.9
Less than 1 year	104	39.0
1-5 years	58	21.7
6-10 years	92	34.5
More than 10 years		
Sector		
Manufacturing industry	54	20.2
Retail industry	46	17.2
Service industry	120	44.9
Other	47	17.6
Firm Size		
1-10	105	39.3
11-20	54	20.2
21-50	84	31.5
More than 50	24	9.0

Results

As mentioned earlier, the conceptual models in this dissertation are analyzed using PROCESS syntax, which is based on OLS regression. The version 3 of PROCESS (Hayes, 2017) makes it possible to program your own model rather than having to rely on models that come preprogrammed into PROCESS macro. The conceptual models in this dissertation are both moderated mediating models, hence PROCESS is used which is particularly useful when there are more than one mediating variable which is the case for our model in study 1.

Correlations of variables for study 1 are shown in Table 2. The overall model fit for study 1 was R-Squared=.2820. Results of the multi-regression using PROCESS for study 1 are provided in Table 4 and explained in more details following the table. Correlations of variables for study 2 are shown in Table 3. The overall model fit for study

2 was R-Squared=.4463. And results of the multi-regression using PROCESS for study 2 is given in Table 5 and explanation of results in presented after the table.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Firm Performance	1												
2. Structural FSC	.430**	1											
3. Cognitive FSC	.444**	.809**	1										
4. Relational FSC	.413**	.853**	.854**	1									
5. Network mobilization	.431**	.560**	.649**	.562**	1								
6. Family firm identity	-.183**	-.006	-.062	-.029	-.088	1							
7. Age	-.023	.197**	.192**	.160**	.096	.073	1						
8. Gender	.047	.163**	.167**	.136*	.187**	-.025	-.036	1					
9. Education	-.103	-.035	-.060	-.044	-.004	-.054	.096	.005	1				
10. Firm Age	.010	-.126*	-.091	-.137*	-.039	-.149*	.026	-.086	.128*	1			
11. Sector	-.018	.061	.041	.071	.037	-.006	-.034	.053	-.029	-.033	1		
12. Number of Employees	.077	-.084	-.067	-.086	.032	-.093	-.164**	-.055	.086	.105	-.133*	1	
13. Voting Block	-.083	.139*	.060	.100	.020	.180**	.258**	-.076	-.068	.011	.037	-.265**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 2. Correlation of variables in study 1.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Firm Performance	1											
2. Family social capital	.454**	1										
3. Innovativeness	.514**	.420**	1									
4. Environmental munificence	.484**	.284**	.480**	1								
5. Family Involvement	.195**	.082	.168**	.128*	1							
6. Age	-.023	.192**	-.056	-.029	-.134*	1						
7.Gender	.047	.164**	.036	-.103	.084	-.036	1					
8. Education	-.103	-.050	-.074	-.166**	.015	.096	.005	1				
9. Firm Age	.010	-.123*	-.053	-.085	.145*	.026	-.086	.128*	1			
10. Sector	-.018	.061	.046	-.122*	-.005	-.034	.053	-.029	-.033	1		
11. Number of Employees	.077	-.084	.167**	.179**	.236**	-.164**	-.055	.086	.105	-.133*	1	
12. Voting Block	-.083	.103	-.126*	-.125*	-.096	.258**	-.076	-.068	.011	.037	-.265**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3. Correlation of variables in study 2.

Table 4. Results for study 1

Relationships	**Standardized Coefficient**	***p-value***
Structural family social capital → Cognitive family social capital	0.81	$p<.001$
Structural social capital × family firm identity → Cognitive family social capital	0.14	$p<.001$
Structural family social capital → Relational family social capital	0.47	$p<.001$
Cognitive family social capital → Relational family social capital	0.48	$p<.001$
Relational family social capital → Network Mobilization	0.52	$p<.001$
Relational family social capital × family firm identity → Network Mobilization	0.13	$p<.01$
Structural family social capital → Firm performance	0.33	$p<.001$
Network Mobilization → Firm performance	0.28	$p<.001$

Relationships	**LLCI**	**ULCI**
Structural family social capital → Cognitive family social capital	.7132	.8453
Structural social capital × family firm identity → Cognitive family social capital	.0715	.1991
Structural family social capital → Relational family social capital	.3629	.5384
Cognitive family social capital → Relational family social capital	.3870	.5697
Relational family social capital → Network Mobilization	.4698	.6744
Relational family social capital × family firm identity → Network Mobilization	.0497	.2443
Structural family social capital → Firm performance	10.0476	23.0950
Network Mobilization → Firm performance	7.0043	19.7449

Indirect Effect:
Structural → Relational → Network → Performance
Index of moderated mediation:

	Index	BootSE	LLCI	ULCI
FFI	.8860	.5021	.1009	2.0392

Indirect Effect:
Structural → Cognitive → Relational → Network → Performance

FFI	Effect	BootSE	LLCI	ULCI
-1.2029	1.5591	.7829	.4603	3.4992
-.0541	2.7860	.9166	1.3199	4.9515
1.0947	4.3488	1.3600	2.1772	7.4426

Table 5. Results for study 2

Relationships	**Standardized Coefficient**	***p-value***
Family social capital → Innovativeness	0.42	$p<.001$
Family social capital → Firm performance	0.27	$p<.01$
Innovativeness → Firm performance	0.30	$p<.001$
Innovativeness × Environmental munificence → Firm performance	0.16	$p<.001$
Family social capital × family management involvement → Firm performance	-0.09	$p>.05$

Relationships	**LLCI**	**ULCI**
Family social capital → Innovativeness	.3310	.5652
Family social capital → Firm performance	11.8079	47.2250
Innovativeness → Firm performance	8.3912	19.7720
Innovativeness × Environmental munificence → Firm performance	3.7969	12.6637
Family social capital × family management involvement → Firm performance	-7.0824	.3928

Indirect Effect:
Family Social Capital → Innovativeness → Firm Performance

Munificence	Effect	SE	LLCI	ULCI
-1.0219	2.5414	1.5776	.5379	5.6517
.0711	6.5721	1.7687	3.3934	10.3045
1.1113	10.4084	2.7523	5.5213	16.3056

Index of moderated mediation:

	Index	SE	LLCI	ULCI
Munificence	3.6880	1.3153	1.3511	6.4697

Below, we report the results of study 1 and study 2 respectively. For each study, we first remind the reader of each hypothesis and then report if we found support for that hypothesis. The coefficients and p-values are also reported.

Study 1

In study 1, positive relationships among the three dimensions of social capital (structural, cognitive, and relational) are supported. The mediating role of relational social capital between structural social capital and network mobilization is supported. Also, the mediating role of network mobilization between relational social capital and firm performance is supported. Further, the positive direct effect of structural social capital on firm performance is supported. Finally, the moderating role of family firm identity is examined. The moderating role of family firm identity on the relationship between structural social capital and cognitive social capital is supported. Also, as hypothesized, the role of family firm identity is supported to positively moderate the relationship between relational social capital and network mobilization.

Direct effect among dimensions of family social capital

Hypothesis 1 of study 1 predicted that structural family social capital in a family firm is positively related to cognitive family social capital. In other words, consistent with the literature on social capital, when members of a family firm have more interactions and are strongly connected, they tend to build common purpose and are more likely to view themselves as partners. The coefficient for this hypothesis is significant (coefficient=.812, $p<.001$) indicating support for this hypothesis.

Hypothesis 2 of study 1 predicts that structural family social capital is positively related to relational family social capital. In other words, consistent with literature in social capital, when there are more interactions among people in a family firm, they are more likely to trust each other and have confidence in each other. The coefficient for this hypothesis is significant (coefficient=.467, p<.001) which shows a positive relationship between structural family social capital and relational family social capital. Hence, hypothesis 2 of study 1 is supported.

Hypothesis 3 of study 1 predicts that cognitive family social capital is positively related to relational family social capital. In other words, consistent with literature in social capital, the more people share values in a family firm and have a common purpose, the more likely they like and trust each other and be considerate of each other’s feelings. The coefficient for this hypothesis is significant (coefficient=.476, p<.001) which indicates support for this hypothesis.

Hypothesis 4 of study 1 predicts that structural social capital is positively related to performance of the family firm. In other words, the more there is interaction among people in a family firm, the better the firm is expected to perform. We predict that members of the family firm take advantage of their relationships and access to information and use that to improve the firm performance. The result of testing study 1 shows support for our proposed hypothesis. The coefficient for this hypothesis is significant (coefficient=.331, p<.001) which indicates support for hypothesis 1-4.

In model 1, the mediating role of cognitive family social capital is also tested to ensure there is mediation between structural and relational family social capital. The indirect effect of cognitive social capital is .3853 and the confidence interval is [.2723,

.4754] which does not include zero. Therefore, we can reject the null hypothesis and conclude that cognitive family social capital does mediate the relationship between structural family social capital and relational family social capital.

Mediating effect of network mobilization

In model 1, relational family social capital is predicted to mediate the relationship between structural family social capital and network mobilization. The indirect effect of relational social capital is .2640 and the confidence interval is [.0469, .5258] which does not include zero. Based on this result, we can reject the null hypothesis, which indicates support for the mediation role of relational family social capital on the relationship between structural social capital and network mobilization.

Also, it is predicted in study 1 that network mobilization mediates the relationship between relational family social capital and firm performance. The indirect effect of network mobilization is .1633 and the confidence interval is [4.6025, 13.0489]. Since the confidence interval does not include zero, we can reject the null hypothesis and conclude support for the mediation role of network mobilization.

Hypothesis 5 of study 1 predicts that relational family social capital is positively related to network mobilization of the family firm. Relational social capital in family firms ensures that people can work collectively. In other words, the more people in a family firm trust and like each other, the more likely they are to work together to benefit the firm using resources from outside the firm. The coefficient for this hypothesis is significant (coefficient =.519, $p<.001$) which indicates support for hypothesis 1-5.

Hypothesis 6 of study 1 predicts that network mobilization is positively related to the performance of family firms. When firms take advantage of inside and outside resources, they are more likely to be able to improve the performance of the family firm. The coefficient for this hypothesis is significant (coefficient=.284, p<.001) which shows support for hypothesis 1-6.

Moderating role of family firm identity

Hypothesis 7 of study 1 is related to the moderating role of family firm identity on the relationship between structural family social capital and cognitive social capital. This hypothesis predicts that family firm identity positively moderates the effect of structural family social capital on cognitive family social capital. In other words, when families identify their firm as a family firm, they take advantage of their interactions and connections to build common purpose and value for the firm. The coefficient for this hypothesis is significant (coefficient=.141, p<.001) which indicates support for hypothesis 1-7.

Finally, the last hypothesis of study1 predicts that family firm identity positively moderates the relationship between relational social capital and network mobilization. By way of explanation, when family is embedded in the business managers, it helps enhance the advantages of cohesiveness and trust towards network mobilization. The coefficient for this hypothesis is significant (coefficient=.136, p<.01) which shows support for this hypothesis.

Study 2

In Study 2, the mediating role of innovativeness between family social capital and firm performance is supported. The direct effect of family social capital and innovativeness was supported. The moderating role of environmental munificence on the relationship between innovativeness and firm performance was supported. And finally, the moderating role of family involvement on the relationship between family social capital and firm performance was not significant.

Mediating role of innovativeness

In study 2, innovativeness is predicted to mediate the relationship between family social capital and firm performance. The indirect effect of innovativeness is .1650 and the confidence interval is [5.5277, 12.1309]. Because the confidence interval does not include zero, we can reject the null hypothesis and conclude with support for the mediation role of innovativeness on the relationship between family social capital and firm performance.

The first hypothesis of study1 predicts that family social capital is positively related to the innovativeness of family firms. In other words, through an increased number of network ties with high quality (which is what is present in family businesses), family firms have access to networks through which they can transfer knowledge and skills and it leads to higher level of innovativeness. The coefficient for this hypothesis is significant (coefficient=.420, $p<.001$) which indicates support for this hypothesis.

Hypothesis 2 of study 2 predicts that innovativeness positively relates to performance of the family firm. Expressly, introducing new products or services (introduction of innovations to the market or innovativeness) is positively related to return on assets and growth (financial performance). The coefficient for this hypothesis is significant (coefficient=.295, p<.001) which reports support for hypothesis 2-2.

Hypothesis 3 of study 2 predicts that family social capital positively relates to performance of the family firm. In other words, families that have a higher level of interaction among them tend to work together to improve performance of the firm. The coefficient for this hypothesis is significant (coefficient=.273, p<.001) which indicates support for hypothesis 2-3.

Moderating role of environmental munificence

Hypothesis 4 of study 2 predicts that environmental munificence positively moderates the relationship between innovativeness and firm performance. When resources are plentiful, it is easier for firms to survive, and with that, it becomes easier for them to pursue other goals of the firm (Castrogiovanni, 1991). When the environment of firms is munificent, the firms are more likely to use their opportunities and innovativeness to perform better. The coefficient for this hypothesis is significant (coefficient=.163, p<.001) which indicates support for this hypothesis.

Moderating role of family management involvement

The last hypothesis of study 2 predicts that family management involvement positively moderates the relationship between family social capital and firm performance in family firms. In other words, involving family members in firm management allows the family to have a better understanding of the challenges and make better decisions to have higher firm performance. The coefficient for this hypothesis is not significant (coefficient=-.094, p>.05) indicating that the hypothesis is not supported.

In studies 1 and 2 age, gender, education of the family members, firm age, sector, number of employees, and voting block were controlled and were found non-significant. This indicates that the results of our models do not significantly change for respondents with different age, gender and education level. Also, firm age and size, sector of the firm and the voting block do not significantly change the results of our models. Therefore, we kept all our control variables in the model to have a fully saturated model.

Common Method Bias

One of the concerns to survey-based research is common method bias, which occurs due to measurement the independent variables and dependent variable using the same method (survey) and from the same respondents (Posakoff and Organ, 1986, Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). According to Podsakoff et al. (2003) the two primary ways to control for method biases are through (a) the design of the study's procedures and/or (b) statistical controls.

Several aspects of the research design in this dissertation suggest that common method variance may be limited. These are: a) research questions were at the organizational level, rather than individual level; b) key members of the family firm were very familiar with the information they provided for this research; c) questions were kept simple, specific, and concise; d) potentially influential variables were controlled; e) respondent's identity was protected and the survey was conducted anonymously; f) respondents were assured that there are no wrong or right answers and they should respond to questions as honestly as possible to reduce emergence of response editing to be more socially desirable; and, g) reliability and validity of measures are tested (Podsakoff et al., 2003).

Although these conditions that were controlled during the research design, we conducted the Harman's one-factor analysis to test for the issue of common method bias in this research. In both studies, an unrotated principal component analysis with single factor extraction was done to investigate the presence of common method bias. In both studies, the variance explained with all factors loading in one single factor resulted in a number less than 50% which is the cutoff for this test (30.7% for study 1, and 29.4% for study 2). Therefore, a substantial amount of common method variance does not appear to be present in the studies of this dissertation.

Endogeneity Test

Further, to address the endogeneity problem, a robustness check was performed. Durbin-Wu-Hausman test was conducted as a check for possible endogeneity in our model. Intergenerational authority was chosen as an instrumental variable for its strength in potentially affecting the models in our research. Intergeneration authority refers to the power gap between the older and younger generations in a family firm. This variable was chosen because of its likelihood to affect family social capital (and in particular structural social capital). Therefore, intergenerational authority was regressed on structural social capital and family social capital in study 1 and study 2 respectively. Then, the residuals from the initial regression tests were included in the original models of study 1 and 2. The p-values for the residuals were non-significant for both models, indicating that endogeneity concerns in our research should be minimal.

Chapter Summary

In this chapter, first the characteristics of the sample were reported, followed by a table of descriptive analysis and table of correlations for both studies. The results of an OLS regression test using a PROCESS macro were presented for each study. The results of testing all the hypotheses and mediation effects for both models were presented followed by an indication of significance or non-significance of results for each proposed hypotheses. Further, common method bias was tested and indicated no sign of substantial common method variance in our research. Finally, the endogeneity issue was tested for intergenerational authority as the instrumental variable. The results show no indication of endogeneity issues in the models of this dissertation.

CHAPTER 6

DISCUSSION AND CONCLUSION

Utilizing two perspectives of innovativeness and network mobilization, this dissertation contributes to the research on family firms by examining the effect of family social capital on firm performance. In doing so, this dissertation also extends application of social capital theory to include the resource-based view of the firm perspective into the discussion of family social capital. This was done by conducting two separate studies.

By disentangling the three dimensions of family social capital, consistent with the literature in social capital, study 1 sought to investigate the relationship among different dimensions of family social capital. Network mobilization is the perspective through which the relationship between relational social capital and firm performance is examined. We argued that firms can use the experiences of other firms and other external resources for learning new strategies and improving their chance of success. We found support for this argument, indicating that in the family firms' context, the role of external networks is important because of the nature of their dense internal networks. The main goal of study 2 was to examine the relationship between family social capital and firm performance through innovativeness in family firms. The role of environmental factors is also examined in study 2. In both studies, the moderating role of family variables (family firm identity in study 1, and family management involvement in study 2) is incorporated to investigate if they moderate the proposed relationships.

Overall, strong support was found for our hypotheses. The first key finding supports the notion that network mobilization partially mediates the effect of relational family social capital on firm performance. Based on the familiness framework, which is built on the resource-based view of the firm, unique resources such as networks, common values and trust are sources of firms' competitive advantage. In family businesses, where family members typically like and trust each other, they take advantage of their internal and external resources to improve firm performance. This finding has important implications for family businesses, suggesting that family managers should maintain their social ties and quality relationships with other members of their family, through whom they can shape new networks with external sources and eventually gain success for their family firm.

Second, family social capital is shown to influence firm performance through a partially mediating role of innovativeness. Again, consistent with social capital theory and familiness framework, family social capital is a positive determinant of high performance. This finding has important implications for family businesses. It points to a need for R&D investments and improving innovation processes in the firm because they can help accomplish higher performance levels. More importantly, members of the family firm need to cultivate and maintain their social ties, and constantly work for improving social capital in their family firm. Through higher levels of social capital, members can bring new resources and gain higher levels of innovativeness, which relates to higher performance of the firm.

Third, based on the findings of this dissertation, family firm identity alters the relationship between structural social capital and cognitive social capital. Findings also provide support for the positive effect of family firm identity on the relationship between relational family social capital on network mobilization. Combining these two findings, it implies that family members should find ways to enhance family firm identity among those family members who are involved in the family firm. Through higher levels of family firm identity, family firms can achieve higher levels of common purpose and are more likely to mobilize external resources to benefit the family firm.

Finally, findings of this dissertation indicate that environmental factors alter the relationship between innovativeness and firm performance. Based on the results of study 2, it would appear that family firms are more likely to take advantage of their innovations, use the resources they have access to and improve performance of the firm when they are in an environment that provides ample opportunities for firms to grow and flourish. This finding has important implications for family business owners and managers. For instance, when it comes to choosing a location for the firm or expanding the firm in new industries, taking into account environmental munificence of the industry may be helpful.

In the remainder of this chapter, we discuss findings of the dissertation in more details, followed by implications of these finding for researchers as well as managers of family businesses. Next, we outline the contributions of this research. Finally, we provide future research avenues and address some limitations of this research.

A summary of the specific findings is displayed in Table 6 followed by a description of these findings.

Table 6. Hypotheses Support

Hypotheses	Support
Study 1	
Direct effect among dimensions of family social capital	
Hypothesis 1-1: Structural social capital of family has a positive relationship with cognitive social capital of family.	***Supported***
Hypothesis 1-2: Structural social capital of family has a positive relationship with relational social capital of the family firm.	***Supported***
Hypothesis 1-3: Cognitive social capital of family has a positive relationship with relational social capital of the family firm.	***Supported***
Hypothesis 1-4: Structural family social capital has a positive relationship with performance of the family firm.	***Supported***
Mediating role of network mobilization	
Hypothesis 1-5: Relational social capital of family has a positive relationship with network mobilization of the family firm.	***Supported***
Hypothesis 1-6: Network mobilization of family firms has a positive relationship with performance of the family firm.	***Supported***
Moderating role of family firm identity	
Hypothesis 1-7: Structural social capital of family firms has a stronger relationship with cognitive family social capital when family firm identity is high than when it is low.	***Supported***
Hypothesis 1-8: Relational social capital of family firm has a stronger relationship with network mobilization of the family firm when family firm identity is high than when it is low.	***Supported***
Study 2	
Mediating role of innovativeness	
Hypothesis 2-1: Family social capital has a positive relationship with innovativeness of the family firm.	***Supported***
Hypothesis 2-2: Innovativeness of family firms has a positive relationship with the performance of the firm.	***Supported***

Hypothesis 2-3: Family social capital has a positive relationship with performance of the family firm.	***Supported***
Moderating role of environmental munificence	
Hypothesis 2-4: Innovativeness of family firms has a stronger relationship with the performance of the firm when the environmental munificence is high than when it is low.	***Supported***
Moderating role of family management involvement	
Hypothesis 2-5: Family social capital has a stronger relationship with performance of the family firm when the family management involvement is high than when it is low.	***Not Supported***

Study 1

Relationships among dimensions of family social capital

As expressed earlier, the three dimensions of family social capital are interconnected. Establishing networks of relationships and maintaining those ties have a key role in building common purpose among family members and for them to share similar language and value. Based on the literature in the social capital domain, individuals have to have interactions with each other first, to develop norms and common vision and language and even trust (Tsai and Ghoshal, 1998). Thus, in hypothesis 1 and 2, we predicted that structural social capital is an antecedent to both relational and cognitive social capital in family firms. Family members' network of relationshsips is positively related to cognitive social capital and relational social capital. It indicates that in line with social capital literature in general, structural family social capital also positively affects the other dimensions of family social capital. In other words, family members need to interact with each other to be able to shape common norms and values and trust each other.

Next, members of a firm are more likely to shape trust among them if they have built common purpose and shared language. Social capital literature has shown a positive relationship between cognitive social capital and relational social capital. In line with social capital literature, we predicted that in family businesses cognitive family social capital would be positively related to relational family social capital. We found support for this hypothesis, indicating that families that build common purpose and values, trust and like other family members more, and perceive themselves as business partners in their family firm. The control variables were found insignificant meaning that results of this model do not differ for respondents with different age, gender, or education, and results also hold for family firms with different characteristics of their family firm.

According to the resource-based view of the firm, unique bundle of resources for each firm bring competitive advantage for the firm. Based on the resource-based view of the firm, successful organizations have resources and abilities that give them competitive advantage over their competitors. Resources that are rare, valuable, inimitable, and non-substitutable give firms unique capabilities for being successful (Barney, 1986; 1991). And these unique and valuable resources are studied under the familiness framework and are believed to bring firms competitive advantage. Also, social capital theory indicates that firms with high levels of social capital perform better. Furthermore, in the social capital literature when the role of structural social capital was studied separately on firm performance, it indicated a positive relationship. Based on the RBV framework and social capital theory, we extended this argument to the family business domain. Consistent with the social capital theory and literature in social capital, we predicted that structural family social capital would be positively related to firm performance of family firms. Structural social capital is considered a unique and valuable resource that family firms own, and it is considered a unique bundle of resources based on the familiness framework. We expected to find support for this positive relationship because familiness (and the resource-based view of the firm in general) theorizes that firms with valuable and unique resources gain competitive advantage. Results of this model support this hypothesis and emphasize the importance of unique resources like structural social capital for family firms. This finding highlights how resources can indeed bring success and improved financial performance to family firms.

Mediating role of network mobilization

Referring to the concept of the resource-based view of the firm, rare, valuable, inimitable, and non-substitutable resources provide firms with competitive advantage. Firms can use their internal resources, as well as taking advantage of resources outside the firms to provide a firm with success. Members of a family firm need be confident in each other, show a great deal of integrity towards each other, and trust one another to work together towards having access to external resources. Hence, we predicted that network mobilization mediates the relationship between relational family social capital and a firm's financial performance.

Findings from running the model show that our proposition was supported. In other words, family firms use their internal resources (relational family social capital in this case) to gain success (higher financial performance in this model) through access to external resources (network mobilization in this study). The positive effect of relational family social capital on network mobilization, and network mobilization on firm performance is supported. Furthermore, the mediation role of network mobilization is supported in this model, which indicates that the indirect effect of network mobilization is significant in this model. Based on these observations, we conclude that family firms use resources from inside to gain access to suppliers, investors and other stakeholders outside the firm through which they improve the firm's financial performance. Findings of this study is evidence that one approach families utilize to take advantage of their internal social capital is to work together to interact with outside sources. Through external sources, family firms not only gain access to financial resources, but they also learn new strategies and decision-making techniques that ultimately provide them with improved financial performance.

Moderating role of family firm identity

Scholars in the field of family business have recently introduced a term exclusively applicable to family businesses called "family firm identity". As defined and expressed throughout this dissertation, family firm identity refers to the degree to which family identity and firm identity overlap (Eddleston, 2011). In the family business domain, family firm identity is shown to motivate family members to try harder for their firm's success. Therefore, the role of family firm identity in the family business studies is undeniable. Family members with a high level of family firm identity take advantage of the networks they possess to establish shared goals and values. Based on this argument, we predicted that family firm identity positively moderates the relationship between structural family social capital and cognitive family social capital. The results of testing the full model indicate support for this hypothesis. Family firms in which members identify their firm with their family, try harder to shape shared values and common purpose to help not only the firm but also the family.

Furthermore, family firm identity interacts with relational social capital to take advantage of the external network of a family business. We had expected that when a family has high levels of trust among members, if they have a strong family firm identity, owners of the business would work harder to meet the needs of the family and the firm (Pearson et al., 2008). When family firm identity is high, owners are likely to work together towards a common goal to benefit the family firm (Uhlander et al., 2015). This suggests that if members link success of their firm with their family's reputation, they will try harder to take advantage of any external resources to perform better.

Study 2

Mediating role of innovativeness

Scholars in family business, management, and small business management domains have long been fascinated by the idea of innovation. Innovation has been studied as dependent variable to see which factors and what characteristics in a firm relate to a higher level of innovation. It has also been studied as an independent factor, which can positively or negatively affect financial performance of a firm. In recent years, innovativeness has been introduced to measure the tendency of small firms to innovate and bring about change in the organization. In this dissertation, we used innovativeness not only as a variable resulting from high levels of family social capital, but also as a family business characteristic resulting in better performance for family firms. Results indicate support for the positive relationship between family social capital and innovativeness, as well as the positive relationship between innovativeness and firm performance. Furthermore, the mediation role of innovativeness was tested and its indirect effect was found significant. It means that innovativeness is the tool through which families gain advantages of the family social capital and turn it into higher firm performance.

Families are more likely to work together towards competitive advantage (and in this case, innovativeness) for their firm when they have high levels of interaction, share a common value and purpose, and trust each other. In other words, innovativeness indeed mediates the relationship between family social capital and firm performance. This dissertation supports the role of innovativeness as a mechanism through which family social capital affects firm performance.

Moderating role of environmental munificence

As Aldrich (1979, p. 61) has stated, “environments affect organizations through the process of making available or withholding resources". It is recalled here that environmental munificence is the extent to which the environment can sustain the developed growth (Starbuck, 1976). Both Starbuck (1976) and Aldrich (1979) state that environments that allow for organizational growth and stability are more desirable for organizations. This argument is consistent with the idea of the resource-based view of the firm. Firms with access to rare and valuable resources are more likely to gain competitive advantage over their competitors, and certain environments provide firms with access to this type of resources. Many studies have shown that the level of profitability for the industry within which the organization competes is an important predictor of organizational performance (Beard and Dess, 1981).

Extending this stream of research, we predicted that environmental munificence affects the relationship between innovativeness and performance of the family firm. Results indicate support for this hypothesis. Environmental munificence positively moderated the relationship between innovativeness and firm performance in family firms. That is, innovative firms will tend to perform better when they are in industries that are abundant with opportunities, and industries that help firms flourish and grow. To the best of our knowledge, this is the first study to demonstrate the effect of environmental munificence on this relationship.

Moderating role of family management involvement

The extent to which members of a family firm are involved in decision making of the firm has not been emphasized in the family business literature. Family firms vary in the number of family members involved in the decision making of the firm and the amount of authority given to these family members. Involvement of family members in decision-making becomes particularly important because family firms are frequently criticized for limited participation of their family members in management and decision making of the firm (Eddleston and Kellermanns, 2007). An argument made by Upton and colleagues (2001) indicates that fast-growing and high-performance family firms are mostly found to have higher family member participation for developing goals and strategies. When family members are involved in management, it allows them to understand the challenges better and make better decisions. Therefore, we predicted that family firms' involvement in management helps build a stronger relationship between family social capital and firm performance.

Findings of study 2 did not provide support for this hypothesis – that is, family management involvement did not significantly moderate the relationship between family social capital and firm performance. An explanation for this might be that after a while, non-family members start to make decisions that would be equally good for the success of the family firm as when family members make such decisions. Another explanation is that it might depend on the type of decisions that are being made by family vs. non-family members. Based on this observation, whether or not family members are involved in the decision making of family businesses does not significantly moderate the relationship between the family social capital and firm performance.

Implications of the Findings

This dissertation has several theoretical, practical, and methodological implications. We begin by providing the theoretical implications followed by practical implications for family businesses and methodological implications.

Theoretical Implications

In this dissertation, social capital theory is used as the umbrella theory for examining the effect of family social capital on firm performance. Further, we utilized the resource-based view of the firm to explain competitive advantages of family firms through possession and use of unique and valuable resources. This dissertation provided evidence of applicability of social capital theory and the resource-based view of the firm in the context of family business.

Social capital provides access to resources that exist in social relations and make collective actions possible. Resources such as network of association, norms and trust work together in an organization to achieve a common purpose. The driving concept behind social capital theory is that a person's position within a particular network provides certain benefits that work to their advantage. Consistent with the emphasis of social capital theory on resources, RBV framework suggests that a firm has a competitive advantage when it has access to unique resources or is implementing a strategy that is not being implemented by any current or potential competitors. Since family social capital is the set of unique resource inherent in a specific family business, the resource-based view of the firm is used to link characteristics of the family firm with its performance. In this dissertation, familiness – as a framework built on RBV - was used to uncover some of the exclusive qualities of family businesses that are not recognizable otherwise (Frank, Lueger, Nose and Suchy, 2010).

In support of social capital theory and familiness framework, models presented in this research indicate affirmation for the positive effect of family social capital on the financial performance of family firms. This dissertation expands the boundaries of social capital theory to include the resource-based view of the firm and in particular familiness framework to explain how social capital theory affects firm performance in the context of family business. Results of study 1 indicate that in family businesses, family social capital (or dimensions of social capital) does positively affect the firm performance.

Study 1 also contributes to social capital theory by providing evidence that internal social capital positively affects firm performance through the mediating role of external social capital (network mobilization). Results of study 1 bring evidence for the process through which family social capital affects firm performance. It confirms the mediating role of external family social capital (network mobilization).

Study 2 further expands social capital theory by introducing a process through which family social capital affects firm performance. In study 2, the mediating role of innovativeness in the relationship between family social capital and firm performance is confirmed. Based on these findings, family social capital can help bring about high levels of innovativeness, which is a valuable resource for the firm and an important antecedent for the firm performance.

In summary, this dissertation employs two perspectives of network mobilization and innovativeness, through which the relationship between family social capital and firm performance is explained. Furthermore, family variables and environmental factors are shown to play an important role in both our models. Through these two studies, social capital theory and resource-based view of the firm have been expanded to include family variables and environmental situations.

Practical Implications for Family Businesses

This dissertation also has implications for family business owners and managers. First, we discuss the two different perspectives through which the relationship between family social capital and performance is explained. Building on the work of Carr et al. (2011), Kellermanns et al. (2012), and Uhlander et al. (2015), two perspectives of innovativeness and network mobilization were shown to explain the process through which family social capital and firm performance are related. Family businesses need to maintain their internal relationships and build trust among members of the family. Through this internal relationship, they can work together to gain access to external resources, such as suppliers, unions, community, and investment companies. A lesson for family firms would be to highlight their internal connections and mobilize their network, and through connection with external sources, they can improve their financial performance.

Second, we offer a comprehensive view of networks taking into account family variables. In study 1, building on Uhlander et al. (2015), family firm identity contributes to the familiness perspective by brining evidence that it moderates two important relationships in this model. Based on these results, family firms not only need to focus on maintaining their internal networks, and having access to external resources, but also need to ensure that family managers/directors in the firm have high levels of family firm identity. Family firms need to invest time and effort to have all the members on board to identify their firms with their family. If family members recognize that, based on the results of this dissertation, for keeping their family reputation they need to try their best to bring success for their firm, it would be an undeniable motivation for managers to try harder to perform better.

And finally, the role of the environmental characteristics is highlighted in this dissertation. Environments in which family firms are given the possibility to grow and are abundant with opportunities help firms leverage their innovativeness and turn it into financial success. This factor can becomes significantly important when family firms are planning to start corporate venturing. When family firms are considering new ideas for corporate entrepreneurship, one important factor to take into account would be the environment and industry of that business. Munificent environments can play a greater role in financial success of family firms that most firms realize. In the strategic decision making for industry and location of new firms, families need to emphasize the importance of environment.

Methodological Implications

This dissertation has certain methodological implications for studying family social capital and its effects on firm performance. Consistent with linear relationship models, we used OLS regression to test both models of the dissertation. Because both models are moderated mediation, PROCESS analysis was used which is a platform in SPSS that conveniently tests mediation relationships and can expand to include moderators and control variables. In this dissertation, the newest version of PROCESS (version 3) was used which enables researchers to modify the code and customize the syntax based on their specific model. Because this method has been recently introduced, this dissertation is likely to be one of the first studies testing this method based on the custom PROCESS models. Specifically, in the family business literature, use of perspectives and moderated mediation has rarely been used, and this dissertation demonstrates how a moderated mediation can be helpful in not only understanding the process through which independent factors in family business affect firm performance, but also the factors that might alter these relationships.

Future Research Opportunities

There are several opportunities to build on this research. First, future research should examine additional perspectives through which family social capital might affect firm performance. In the first study, we focused on network mobilization, as external social capital, to compliment the study of internal family social capital. In the second study, we focused on innovativeness, because in today's world it has become impossible to discuss performance without discussing innovation. Although this dissertation has chosen two comprehensive and relatable perspectives, it would be interesting to know whether other factors might exist that mediate this relationship. For example, how would socio-economic wealth mediate the relationship between family social capital and financial performance?

Another interesting future research area is applying other family variables that might affect research questions related to family social capital. Since the context of this research is family business, there might be other family-related variables that could affect this model; for example, family essence, transgenerational succession, and family commitment. Hence, future research can examine the effect of these variables on family firm innovation and performance.

Finally, future research can develop and test multi-level models to examine familiness and related factors. By collecting data from individual members of the family within one family firm and several families in one industry, researchers can use multilevel methodology for studying the effect of individual, organizational, and industry level. For example, how is homogeneity in perception of family members about family firm identity related to non-economic goals of the firm? Researchers can also examine how the non-economic goals of family firms in an industry related to growth of that industry? Hierarchical linear modeling needs to be used for this type of design.

Limitations

Like all empirical studies, this research is not without shortcomings. While this dissertation provides many contributions and several theoretical, practical, and methodological implications, it has a few limitations, which we address here.

External Validity

External validity refers to the validity of generalized inferences in scientific research. In other words, it is the extent to which the results of a study can be generalized to other situations and in our case, to other firms. As discussed earlier in this dissertation, the boundary conditions of this study were based on:

a) family firms' context, meaning that the results of this research is only applicable to family firms. We do not have any evidence to show whether or now it applies to firms in general;

b) small private firms, meaning that the sample of this study was based on small (less than 500 employees) private firms. The results of this study may not be applicable to public or large firms without testing;

c) firms located in the US, meaning that the sample is only based on family firms that are located in the US. This dissertation does not take into account how culture or location might affect the results of this research. Hence, it is difficult to say whether the same results would hold in different countries and/or cultures or not.

Thus, application of findings of this dissertation is limited to small private family firms that are located in the US. Furthermore, the data for this dissertation is collected via Qualtrics data collection service, which is an online platform. There has been a debate among researchers on the generalizability of online data collection. Critics argue that these tools might draw from convenient samples, while proponents argue that the data in collected from heterogeneous samples around the country (Aguinis and Lawal, 2012). We checked our respondents' location and it indicates that the data has been collected from all around the US. Also, we used 5 screening questions to narrow our sample, which helped us target the exact respondents we needed for this research. Care should be taken in interpreting the results in light of the above boundary conditions.

Methodological Reliability

The analytic method used for testing the models in this dissertation is based on OLS regression. OLS regression for models with latent variables might incur measurement errors to carry out in the model. The alternative method was structural equation modeling using LISREL or AMOS. While structural equation modeling is a reliable method for testing mediation relationships, it is not reliable when it comes to moderated mediation. For testing moderation using structural equation modeling, the interaction term should either be manually entered into the model (which would be similar to OLS regression), or the model should be tested separately for different levels of moderation variable (only if the moderation variable is categorical). Therefore, we utilized PROCESS, which is developed mainly to handle moderated mediation models and has been used in numerous social science research articles.

Conclusion

Social capital is a key variable in management science, and has long been studied to test its antecedent factors as well as how it affects different dependent variables in management, strategy and entrepreneurship. Indeed, literature has clearly shown the importance of social capital. In this dissertation, the effect of family social capital on firm performance is examined in the context of family business. Two separate models with lenses of resource-based theory and network mobilization were used to show the perspective through which the family social capital affects firm’s financial performance. The findings show that in families, structural and cognitive social capital are positively related to relational social capital. It also shows that network mobilization partially mediates the relationship between relational social capital and firm performance. The findings also indicate the positive key role of family firm identity on both the relationship between structural and cognitive social capital, and relational social capital and network mobilization. Additionally, results of this dissertation show that innovativeness partially mediates the relationship between family social capital and firm performance. Finally, results show that environmental munificence positively affects the relationship between innovativeness and firm performance. This research provides an important step in examination of social capital in family business and it is hoped that researchers will build further on these findings. The research provides family business managers important insights on how to manage their family firms more successfully.

REFERENCES

Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of management review*, *27*(1), 17-40.

Aguinis, H., & Lawal, S.O. (2012). Conducting field experiments using eLancing's natural environment. Journal of Business Venturing, 27, 493-505.

Aldrich, H. (1979). Organizations and Envil· onments. Englewood Cliffs. N. L Prentice-Hall. C. *Ru/ihinda*.

Aldrich, H. E., & Pfeffer, J. (1976). Environments of organizations. *Annual review of sociology*, *2*(1), 79-105.

Allen, M. P., & Panian, S. K. (1982). Power, performance, and succession in the large corporation. *Administrative Science Quarterly*, 538-547.

Andersson, U., Forsgren, M., & Holm, U. (2002). The strategic impact of external networks: subsidiary performance and competence development in the multinational corporation. *Strategic management journal*, *23*(11), 979-996.

Aronoff, C. E., & Ward, J. L. (1995). Family-owned businesses: A thing of the past or a model of the future*? Family Business Review*, *8*(2), 121–130.

Arregle, J. L., Hitt, M. A., Sirmon, D. G., & Very, P. (2007). The development of organizational social capital: attributes of family firms*. *Journal of management studies*, *44*(1), 73-95.

Arrow, K. 1974. The limits of organization. New York: Norton

Artz, K. W., Norman, P. M., Hatfield, D. E., & Cardinal, L. B. (2010). A longitudinal study of the impact of R&D, patents, and product innovation on firm performance. *Journal of Product Innovation Management*, *27*(5), 725-740.

Astrachan, J. H., & Kolenko, T. A. (1994). A neglected factor explaining family business success: Human resource practices. *Family business review*, *7*(3), 251-262.

Baker, W. E. (1990). Market networks and corporate behavior. *American journal of sociology*, 589-625.

Bammens, Y., Voordeckers, W., & Van Gils, A. (2008). Boards of directors in family firms: A generational perspective. *Small Business Economics*, *31*(2), 163-180.

Barney JB. 1986. Strategic factor markets: expectations, luck, and business strategy. *Management Science* 32(10): 1231–1241.

Barney, J. (1991). Firm resources and sustained competitive advantage.*Journal of management*, *17*(1), 99-120.

Beard, D. W., & Dess, G. G. (1981). Corporate-level strategy, business-level strategy, and firm performance. *Academy of management Journal*, *24*(4), 663-688.

Becker, G. S. (1964). Human Capital: a Theoretical and Empirical Analysis, with Special Reference to Schooling.

Benavides-Velasco, C. A., Quintana-García, C., & Guzmán-Parra, V. F. (2013). Trends in family business research. *Small business economics*, *40*(1), 41-57.

Bird, B., Welsch, H., Astrachan, J. H., & Pistrui, D. (2002). Family business research: The evolution of an academic field. *Family Business Review*, *15*(4), 337-350.

Birley, S. (2001). Owner-manager attitudes to family and business issues: A 16 country study. *Entrepreneurship Theory and Practice*, *25*, 63–76.

Bierly, P. E., & Daly, P. S. (2007). Alternative knowledge strategies, competitive environment, and organizational performance in small manufacturing firms. *Entrepreneurship Theory and Practice*, *31*(4), 493-516.

Björnberg, Å., & Nicholson, N. (2007). The family climate scales—Development of a new measure for use in family business research. *Family Business Review*, *20*(3), 229-246.

Boisot, M. 1995. Information space: A framework for learning in organizations, institutions and culture. London: Routledge.

Boland, R. J., & Tenkasi, R. V. 1995. Perspective making and perspective taking in communities of knowing. Organization Science, 6: 350-372.

Bolino, M. C., Turnley, W. H. and Bloodgood, J. M. (2002). 'Citizenship behavior and the creation of social capital in organizations'. *Academy of Management Review*, 27, 505–22.

Bourdieu, P. (1986). The forms of capital Handbook of theory and research for the sociology of education (pp. 241–258).

Bourgeois, L. J. (1981). On the measurement of organizational slack. *Academy of Management review*, *6*(1), 29-39.

Bouty, I. (2000). Interpersonal and interaction influences on informal resource exchanges between R&D researchers across organizational boundaries. *Academy of Management Journal*, *43*(1), 50-65.

Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of management journal*,*36*(3), 441-470.

Brander Brown, J., & McDonnell, B. (1995). The balanced score-card: short-term guest or long-term resident?. *International Journal of Contemporary Hospitality Management*, *7*(2/3), 7-11.

Burt, R. S. (1987). Social contagion and innovation: Cohesion versus structural equivalence. *American journal of Sociology*, *92*(6), 1287-1335.

Burt, R. S. (1992). *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.

Burt, R. S. (1997). The contingent value of social capital. *Administrative science quarterly*, 339-365.

Burt, R. S. (2000). The network structure of social capital. *Research in organizational behavior*, *22*, 345-423.

Cabrera-Suárez, M. K., Déniz-Déniz, M. C., & Martín-Santana, J. D. (2015). Family social capital, trust within the TMT, and the establishment of corporate goals related to nonfamily stakeholders. *Family Business Review*, *28*(2), 145-162.

Campion, M. A., Papper, E. M., & Medsker, G. J. (1996). Relations between work team characteristics and effectiveness: A replication and extension.*Personnel psychology*, *49*(2), 429-452.

Carpenter, M. A., & Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management journal*, *44*(4), 639-660.

Carr, J. C., Cole, M. S., Ring, J. K., & Blettner, D. P. (2011). A measure of variations in internal social capital among family firms. *Entrepreneurship Theory and Practice*, *35*(6), 1207-1227.

Casillas, J. C., & Moreno, A. M. (2010). The relationship between entrepreneurial orientation and growth: The moderating role of family involvement. *Entrepreneurship and Regional Development*, *22*(3-4), 265-291.

Castrogiovanni, G. J. (1991). Environmental Munihcence; A Theoretical Assessment. *Academy of management review*, *16*(3), 542-565.

Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. *Academy of management review*, *7*(1), 35-44.

Chirico, F., & Bau, M. (2014). Is the family an “Asset” or “Liability” for firm performance? The moderating role of environmental dynamism. *Journal of Small Business Management*, *52*(2), 210-225.

Chrisman, J. J., Chua, J. H., Kellermanns, F. W., Matherne III, C. F., & Debicki, B. J. (2008). Management journals as venues for publication of family business research. *Entrepreneurship Theory and Practice*, *32*(5), 927-934.

Chrisman, J. J., Chua, J. H., & Sharma, P. (2005). Trends and directions in the development of a strategic management theory of the family firm. *Entrepreneurship theory and practice*, *29*(5), 555-576.

Chrisman, J. J., Chua, J. H., Pearson, A. W., & Barnett, T. (2012). Family involvement, family influence, and family-centered non-economic goals in small firms. *Entrepreneurship theory and practice*, *36*(2), 267-293.

Chrisman, J. J., Kellermanns, F. W., Chan, K. C., & Liano, K. (2009). Intellectual foundations of current research in family business: An identification and review of 25 influential articles. *Family Business Review*.

Chua, J. H., Chrisman, J. J., & Steier, L. P. (2003). Extending the theoretical horizons of family business research. *Entrepreneurship Theory and Practice*, *27*(4), 331-338.

Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship: Theory and Practice*, *23*(4), 19-19.

Churchill, N. C., & Hatten, K. J. (1997). Non-market-based transfers of wealth and power: A research framework for family business. *Family Business Review*, *10*(1), 53-67.

Cicourel, A. V. (1973). Cognitive sociology Penguin Books. *Harmondsworth, UK*.

Coleman, J. S. (1988). Social capital in the creation of human capital.*American journal of sociology*, S95-S120.

Coleman, J. S. 1990. Foundations of social theory. Cambridge, MA: Belknap Press of Harvard University Press.

Coleman, J. S. 1993. Properties of rational organizations. In S. M. Lindenberg & H. Schreuder (Eds.), Interdisciplinary perspectives on organization studies: 79-90. Oxford, England: Pergamon Press.

Covin, J. G. (1991), Entrepreneurial Versus Conservative Firms: A Comparison of Strategies and Performance. Journal of Management Studies, 28: 439–462. doi:10.1111/j.1467-6486.1991.tb00763.x

Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, *10*(1), 75-87.

Covin, J. G., & Slevin, D. P. (1998). Adherence to plans, risk taking, and environment as predictors of firm growth. *The Journal of High Technology Management Research*, *9*(2), 207-237.

Covin, J. G., Slevin, D. P., & Heeley, M. B. (2000). Pioneers and followers: Competitive tactics, environment, and firm growth. *Journal of Business Venturing*, *15*(2), 175-210.

Cyert, R. M., & March, J. G. (1963). A behavioral theory of the firm. *Englewood Cliffs, NJ*, *2*.

Daft, R. L. (1983). Learning the craft of organizational research. *Academy of Management Review*, *8*(4), 539-546.

Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of management journal*, *34*(3), 555-590.

Danes, S. M., Stafford, K., Haynes, G., & Amarapurkar, S. S. (2009). Family capital of family firms: Bridging human, social, and financial capital. *Family Business Review*.

Davis, P. (1983). Realizing the potential of the family business.*Organizational Dynamics*, *12*(1), 47-56.

Davis, J. A,. & Tagiuri, R. (1985). Bivalent attitudes of the family firai. Paper presented at the Western Academy of Management Meeting, March 29.

Deephouse, D. L., & Carter, S. M. (2005). An examination of differences between organizational legitimacy and organizational reputation. *Journal of management Studies*, *42*(2), 329-360.

de Vries, M. F. K. (1993). The dynamics of family controlled firms: The good and the bad news. *Organizational dynamics*, *21*(3), 59-71.

Desman, R., & Brush, C. (1991). Family Business: the State of the Nation in N. Upton. In *Proceedings of the 1991 family firm conference, Jonestown, NY Family Firm Institute*.

Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative science quarterly*, 52-73.

Dess, G. G., & Shaw, J. D. (2001). Voluntary turnover, social capital, and organizational performance. *Academy of management review*, *26*(3), 446-456.

Donnelley, R. G. (1964). The family business. *Harvard Business Review*,*42*(4), 93-105.

Dyer Jr, W. G., & Dyer, W. J. (2009). Putting the family into family business research. *Family Business Review*, *22*(3), 216-219.

Eddleston, K. A. (2011). The family as an internal and external resource of the firm: The importance of building family-firm identity. *Family business and social capital*, 186-197.

Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing*, *22*(4), 545-565.

Elfring, T., & Hulsink, W. (2003). Networks in entrepreneurship: The case of high-technology firms. *Small business economics*, *21*(4), 409-422.

Etzioni, A. 1996. The responsive community: A communitarian perspective. American Sociological Review, 61: 1-11.

Fisher, S. R., & White, M. A. (2000). Downsizing in a learning organization: are there hidden costs?. *Academy of Management Review*, *25*(1), 244-251.

Follet, M. P. 1949. Coordination. In L. Urwick (Ed.), Freedom and co-ordination: Lectures in business organization: 61- 76. London: Management Publications Trust.

Foss, N. J., & Knudsen, T. (2003). The resource-based tangle: towards a sustainable explanation of competitive advantage. *Managerial and decision economics*, *24*(4), 291-307.

Frank, H., Lueger, M., Nosé, L., & Suchy, D. (2010). The concept of "Familiness": Literature review and systems theory-based reflections. *Journal of Family Business Strategy*, *1*(3), 119-130.

Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*(No. D10 301 c. 1/c. 2). New York: Free press.

Gersick, K.E., Davis, J.A., Hampton, M.M., & Lansberg, I. (1997). *Generation to generation: Life cycles of the family business*. Boston: Harvard Business School Press.

Gnyawali, D. R., & Stewart, A. C. (2003). A contingency perspective on organizational learning: integrating environmental context, organizational learning processes, and types of learning. *Management Learning*, *34*(1), 63-89.

Gomez-Mejia, L. R., Larraza-Kintana, M., & Makri, M. (2003). The determinants of executive compensation in family-controlled public corporations. *Academy of management journal*, *46*(2), 226-237.

Gomez-Mejia, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *The academy of management annals*, *5*(1), 653-707.

Gomez-Mejia, L. R., Makri, M., & Kintana, M. L. (2010). Diversification decisions in family-controlled firms. *Journal of management studies*, *47*(2), 223-252.

Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative science quarterly*, *52*(1), 106-137.

Granovetter, M. S. (1973). The strength of weak ties. *American journal of sociology*, 1360-1380.

Granovetter, M. S. (1985). 'Economic action and social structure: the problem of embeddedness'. *American Journal of Sociology*, 91, 481–510.

Granovetter, M. (1992). Economic institutions as social constructions: a framework for analysis. *Acta sociologica*, *35*(1), 3-11.

Habbershon, T. G., & Williams, M. L. (1999). A resource-based framework for assessing the strategic advantages of family firms. *Family Business Review*, *12*(1), 1-25.

Habbershon, T. G., Williams, M., & MacMillan, I. C. (2003). A unified systems perspective of family firm performance. *Journal of business venturing*, *18*(4), 451-465.

Hambrick, D. C., & Finkelstein, S. (1987). Managerial discretion: A bridge between polar views of organizational outcomes. *Research in organizational behavior*.

Handler, W. C. (1989). Methodological issues and considerations in studying family businesses. *Family business review*, *2*(3), 257-276.

Handler, W. C. (1994). Succession in family business: A review of the research. *Family business review*, *7*(2), 133-157.

Harris, D., Martinez, J. I., & Ward, J. L. (1994). Is strategy different for the family-owned business?. *Family business review*, *7*(2), 159-174.

Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. *Guilford Publications.*

Hayton, J. C., & Kelley, D. J. (2006). A competency-based framework for promoting corporate entrepreneurship. *Human Resource Management*, *45*(3), 407-427.

Hillman, A. J., Cannella, A. A., & Paetzold, R. L. (2000). The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management studies*, *37*(2), 235-256.

Hirsch, P. M., & Levin, D. Z. (1999). Umbrella advocates versus validity police: A life-cycle model. *Organization Science*, *10*(2), 199-212.

Hoffman, J., Hoelscher, M., & Sorenson, R. (2006). Achieving sustained competitive advantage: A family capital theory. *Family business review*, *19*(2), 135-145.

Hogg, R. V., & Tanis, E. A. (2009). *Probability and statistical inference*. Pearson Educational International.

Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest editors' introduction to the special issue: why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, *24*(10), 889-902.

Hsieh, M. H., & Tsai, K. H. (2007). Technological capability, social capital and the launch strategy for innovative products. *Industrial Marketing Management*, *36*(4), 493-502.

Ibarra, H. (1992). 'Structural alignments, individual strategies, and managerial action: elements toward a network theory of getting things done'. In Nohria, N. and Eccles, R. G. (Eds), *Network and Organizations: Structure, Form and Action*. Boston, MA: Harvard Business School Press, 165–88.

Inkpen, A. C., & Tsang, E. W. (2005). Social capital, networks, and knowledge transfer. *Academy of management review*, *30*(1), 146-165.

Itami, H. 1987. *Mobilizing invisible assets.* Gainbridge. MA: Harvard University Press.

Jacobs, J. (1961). *The death and life of great American cities*. Vintage.

Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of management review*, *23*(3), 531-546.

Kellermanns, F. W., & Eddleston, K. A. (2004). Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice*, *28*(3), 209-228.

Kellermanns, F. W., Eddleston, K. A., Sarathy, R., & Murphy, F. (2012). Innovativeness in family firms: A family influence perspective. *Small Business Economics*, *38*(1), 85-101.

Klimoski, R., & Mohammed, S. (1994). Team mental model: Construct or metaphor?. *Journal of management*, *20*(2), 403-437.

Knack, S., & Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *The Quarterly journal of economics*, 1251-1288.

Koberg, C. S. (1987). Resource scarcity, environmental uncertainty, and adaptive organizational behavior. *Academy of Management Journal*, *30*(4), 798-807.

Kogut, B., & Zander, U. (1996). What firms do? Coordination, identity, and learning. *Organization science*, *7*(5), 502-518.

Koka, B. R., & Prescott, J. E. (2002). Strategic alliances as social capital: A multidimensional view. *Strategic management journal*, *23*(9), 795-816.

Krackhardt, D. (1989). Graph theoretical dimensions of informal organization.', paper presented at the Annual Meeting of the Academy of Management, Washington, DC.

Krackhardt, D. 1992. The strength of strong ties. In N. Nohria & R. G. Eccles (Eds.), Networks and organizations: Structure, form and action: 216-239. Boston: Harvard Business School Press.

Krackhardt, D., & Hanson, J. R. (1993). Informal networks. *Harvard business review*, *71*(4), 104-111.

Kramer, R. M., Brewer, M. B., & Hanna, B. A. (1996). Collective trust and collective action. *Trust in organizations: Frontiers of theory and research*, 357-389.

Lansberg, I. (1999). *Succeeding generations*. Boston: Harvard Business School Press.

Lansberg, I., & Astrachan, J. H. (1994). Influence of family relationships on succession planning and training: The importance of mediating factors. *Family Business Review*, *7*(1), 39-59.

Lau, R. S., & Cobb, A. T. (2010). Understanding the connections between relationship conflict and performance: The intervening roles of trust and exchange. *Journal of Organizational Behavior*, *31*(6), 898-917.

Lazega, E., & Pattison, P. E. (2001). Social capital as social mechanisms and collective assets: The example of status auctions among colleagues.*Social capital: Theory and research*, *185*, 208.

Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of management review*, *24*(3), 538-555.

Lin, N. (1999). Building a network theory of social capital. *Connections*, *22*(1), 28-51.

Lin, N. (2001). *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.

Lin, H. C., & Shih, C. T. (2008). How executive SHRM system links to firm performance: The perspectives of upper echelon and competitive dynamics. *Journal of Management*, *34*(5), 853-881.

Litz, R. A. (1995). The family business: Toward definitional clarity. *Family Business Review*, *8*(2), 71-81.

Loury, G. (1977). A dynamic theory of racial income differences. *Women, minorities, and employment discrimination*, *153*, 86-153.

Loury, G. C. (1987). Why should we care about group inequality?. *Social Philosophy and Policy*, *5*(01), 249-271.

Lubatkin, M. H., Schulze, W. S., Ling, Y., & Dino, R. N. (2005). The effects of parental altruism on the governance of family-managed firms. *Journal of organizational behavior*, *26*(3), 313-330.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, *21*(1), 135-172.

Lumpkin, G. T., Brigham, K. H., & Moss, T. W. (2010). Long-term orientation: Implications for the entrepreneurial orientation and performance of family businesses. *Entrepreneurship and Regional Development*, *22*(3-4), 241-264.

Mahalanobis, P. C. (1936). On the generalized distance in statistics. National Institute of Science of India.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, *20*(3), 709-734.

Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of applied psychology*, *84*(1), 123.

McArthur, A. W., & Nystrom, P. C. (1991). Environmental dynamism, complexity, and munificence as moderators of strategy-performance relationships. *Journal of Business Research*, *23*(4), 349-361.

McConaughy, D. L., Walker, M. C., Henderson, G.V., & Mishra, C. S. (1995). Founding family controlled firms: Efficiency and value. Paper presented at the European Financial Management Association Meeting.

Miles, R. E., Snow, C. C., & Pfeffer, J. (1974). Organization-environment: concepts and issues. *Industrial Relations: A Journal of Economy and Society*, *13*(3), 244-264.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management science*, *29*(7), 770-791.

Miller, D., & Dröge, C. (1986). Psychological and traditional determinants of structure. *Administrative science quarterly*, 539-560.

Miller, D., & Friesen, P. 1982. Structural change and performance: Quantum versus piecemeal incremental approaches. *Academy of Management Journal*, 25: 867-892.

Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: the third link. *Strategic management journal*, *4*(3), 221-235.

Miller, D., & Le Breton-Miller, I. (2007). Kicking the habit: Broadening our horizons by studying family businesses.

Miller, E. J., & Rice, A. K. (1967). *Systems of Organisation: The Control of Task and Sentiment Boundaries*. Tavistock Publ..

Mintzberg, H. (1979). *The structuring of organizations* (Vol. 203). Englewood Cliffs, NJ: Prentice hall.

Mishira, A. K. 1996. Organizational responses to crisis. The centrality of trust. In R. M. Kramer & T. M. Tyler (Eds.), Trust in organizations: 261-287. Thousand Oaks, CA: Sage.

Misztal, B. 1996. Trust in modern societies. Cambridge, England: Polity Press.

Monteverde, K. (1995). *Applying resource-based strategic analysis: Making the model more accessible to practitioners*.

Moran, P. (2005). Structural vs. relational embeddedness: Social capital and managerial performance. *Strategic management journal*, *26*(12), 1129-1151.

Moran, P., & Ghoshal, S. 1996. Value creation by firms. In J. B. Keys & L. N. Dosier (Eds.), Academy of Management Best Paper Proceedings: 41-45.

Morck, R., & Yeung, B. (2004). Family control and the rent-seeking society.*Entrepreneurship Theory and Practice*, *28*(4), 391-409.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of management review*, *23*(2), 242-266.

Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial orientation, risk taking, and performance in family firms. *Family business review*, *20*(1), 33-47.

Naldi, L., Chirico, F., Kellermanns, F. W., & Campopiano, G. (2015). All in the family? An exploratory study of family member advisors and firm performance. *Family Business Review*, *28*(3), 227-242.

Neubauer, F., & Lank, A. G. (1998). *The family business: Its governance for sustainability*. Macmillan.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford university press.

Noruzy, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., & Rezazadeh, A. (2013). Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance: an empirical investigation of manufacturing firms. *The International Journal of Advanced Manufacturing Technology*, *64*(5-8), 1073-1085.

Orr, J. E. (1990). Sharing knowledge, celebrating identity: Community memory in a service culture. *Collective remembering*, *169*, 189.

Ouchi, W. G. (1980). Markets, bureaucracies, and clans. *Administrative science quarterly*, 129-141.

Park, S. H., & Luo, Y. (2001). Guanxi and organizational dynamics: Organizational networking in Chinese firms. *Strategic management journal*, *22*(5), 455-477.

Pearson, A. W., Carr, J. C., & Shaw, J. C. (2008). Toward a theory of familiness: A social capital perspective. *Entrepreneurship Theory and Practice*, *32*(6), 949-969.

Penrose, E. 1959. The theory of the growth of the firm. Oxford, England: Basil Blackwell.

Peteraf, M. A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14: 179-191.

Pfeffer, J., & Salancik, G. R. (1978). The External Control of Organizations: A Resource Dependence Perspective.

Podolny, J. M., & Baron, J. N. (1997). Resources and relationships: Social networks and mobility in the workplace. *American sociological review*, 673-693.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of management*, *12*(4), 531-544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879.

Porter, M. E. (1990). The competitive advantage of nations. *Harvard business review*, *68*(2), 73-93.

Pratt, J. H., & Davis, J. A. (1985). Measurement and evaluation of the populations of family-owned and home-based businesses.

Putnam, R. D. (1993). The prosperous community. *The american prospect*,*4*(13), 35-42.

Putnam, R. D. (1995). Bowling alone: America's declining social capital.*Journal of democracy*, *6*(1), 65-78.

Randolph, W. A., & Dess, G. G. (1984). The congruence perspective of organization design: A conceptual model and multivariate research approach. *Academy of Management review*, *9*(1), 114-127.

Raymond, L., Bergeron, F., & Croteau, A. M. (2013). Innovation capability and performance of manufacturing SMEs: The paradoxical effect of IT integration. *Journal of Organizational Computing and Electronic Commerce*, *23*(3), 249-272.

Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative science quarterly*, *48*(2), 240-267.

Rost, K. (2011). The strength of strong ties in the creation of innovation. *Research policy*, *40*(4), 588-604.

Rowley, T., Behrens, D., & Krackhardt, D. (2000). Redundant governance structures: An analysis of structural and relational embeddedness in the steel and semiconductor industries. *Strategic management journal*, *21*(3), 369-386.

Rutherford, M. W., Kuratko, D. F., & Holt, D. T. (2008). Examining the Link Between "Familiness" and Performance: Can the F-PEC Untangle the Family Business Theory Jungle?. *Entrepreneurship theory and practice*, *32*(6), 1089-1109.

Scott, J. 1991. Social network analysis: A handbook. London: Sage.

Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of management journal*, *44*(2), 219-237.

Sharma, P. (2008). Commentary: Familiness: Capital stocks and flows between family and business. *Entrepreneurship Theory and Practice*, *32*(6), 971-977.

Sharma, P., Chrisman, J. J., & Chua, J. H. (1996). A Review of the Family Business Literature. In *A Review and Annotated Bibliography of Family Business Studies* (pp. 2-50). Springer US.

Sharma, P., Chrisman, J., & Chua, J. (1996). An evaluation of family firm research from a strategic management perspective. *Proceedings of United States Association for Small Business and Entrepreneurship*, 33-42.

Sharma, P., Chrisman, J. J., & Chua, J. H. (1997). Strategic management of the family business: Past research and future challenges. *Family business review, 10*(1), 1-35.

Sharma, P., Chrisman, J. J., & Chua, J. H. (2003). Predictors of satisfaction with the succession process in family firms. *Journal of business Venturing*, *18*(5), 667-687.

Shipilov, A. V., Greve, H. R., & Rowley, T. J. (2010). When do interlocks matter? Institutional logics and the diffusion of multiple corporate governance practices. *Academy of Management Journal*, *53*(4), 846-864.

Snehota, I., & Hakansson, H. (Eds.). (1995). *Developing relationships in business networks*. London: Routledge.

Sorenson, R. L., & Bierman, L. (2009). Family Capital, Family Business, and Free Enterprise. *Family Business Review*, *22*(3), 193-195.

Sorenson, R. L., Goodpaster, K. E., Hedberg, P. R., & Yu, A. (2009). The family point of view, family social capital, and firm performance an exploratory test. *Family Business Review*, *22*(3), 239-253.

Starbuck, W.H. (1976a), ‘Organizations and their environments’, pp. 1069–1123 in M. D. Dunnette (ed.), Handbook of Industrial and Organizational Psychology; Rand McNally.

Sundaramurthy, C. (2008). Sustaining trust within family businesses. *Family Business Review*, *21*(1), 89-102.

Tagiuri, R., & Davis, J. (1996). Bivalent attributes of the family firm. *Family business review*, *9*(2), 199-208.

Thompson, J. D. (1967). *Organizations in action: Social science bases of administrative theory*. Transaction publishers.

Tichy, N. M., Tushman, M. L., & Fombrun, C. (1979). Social network analysis for organizations. *Academy of management review*, *4*(4), 507-519.

Tomer, J. F. (1987). *Organizational capital: The path to higher productivity and well-being*. Praeger Publishers.

Tripsas, M. (1997). Unraveling the process of creative destruction: Complementary assets and incumbent survival in the typesetter industry. *Strategic Management Journal*, 119-142.

Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, *44*(5), 996-1004.

Tsai, W. & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, *41*, 464–476.

Uhlaner, L. M. (2005). The Use of the Guttman Scale in Development of a Family Orientation Index for Small-to-Medium-Sized Firms. *Family Business Review*, *18*(1), 41-56.

Uhlaner, L. M., Matser, I. A., Berent-Braun, M. M., & Flören, R. H. (2015). Linking Bonding and Bridging Ownership Social Capital in Private Firms: Moderating Effects of

Ownership–Management Overlap and Family Firm Identity. *Family Business Review*, *28*(3), 260-277.

Upton, N., Vinton, K., Seaman, S., & Moore, C. (1993). Research note: Family business consultants—Who we are, what we do, and how we do it.*Family Business Review*, *6*(3), 301-311.

Uzzi, B., & Gillespie, J. J. (2002). Knowledge spillover in corporate financing networks: Embeddedness and the firm's debt performance. *Strategic Management Journal*, *23*(7), 595-618.

Uzzi, B., & Lancaster, R. (2003). Relational embeddedness and learning: The case of bank loan managers and their clients. *Management science*, *49*(4), 383-399.

Vago, M. (2004). Integrated Change Management©: Challenges for family business clients and consultants. *Family Business Review*, *17*(1), 71-80.

Walker, G., Kogut, B., & Shan, W. (1997). Social capital, structural holes and the formation of an industry network. *Organization science*, *8*(2), 109-125.

Ward, J. L. (1987). *Keeping the family business healthy: How to plan for continuing growth*. San Francisco: Jossey-Bass.

Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications* (Vol. 8). Cambridge university press.

Week, B. (2003). The Business Week Global 1000. *July*, *14*, 2003.

Weick, K. E. (1995). *Sensemaking in organizations* (Vol. 3). Sage.

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative science quarterly*, 357-381.

Westlund, H., & Adam, F. (2010). Social capital and economic performance: A meta-analysis of 65 studies. *European Planning Studies*, *18*(6), 893-919.

Williamson, O. E. (1975). Markets and hierarchies. *New York*, 26-30.

Wit, A. P., & Wilke, H. A. (1992). The effect of social categorization on cooperation in three types of social dilemmas. *Journal of Economic Psychology*, *13*(1), 135-151.

Wortman, M. S. (1994). Theoretical foundations for family-owned business: A conceptual and research-based paradigm. *Family Business Review*, *7*(1), 3-27.

Wu, W. P. (2008). Dimensions of social capital and firm competitiveness improvement: The mediating role of information sharing. *Journal of management studies*, *45*(1), 122-146.

Yli-Renko, H., Autio, E., & Tontti, V. (2002). Social capital, knowledge, and the international growth of technology-based new firms. *International Business Review*, *11*(3), 279-304.

Zahra, S. A. (1993). Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of business venturing*, *8*(4), 319-340.

Zahra, S. A. (2005). Entrepreneurial risk taking in family firms. *Family business review*, *18*(1), 23-40.

Zheng, W. (2010). A social capital perspective of innovation from individuals to nations: where is empirical literature directing us?. *International Journal of Management Reviews*, *12*(2), 151-183.

APPENDIX A

Intergenerational Authority items (Cronbach's Alpha = .872)

1. In this family the younger generations try to conform with what the older generation would want.
2. In this family the wishes of the older generation are obeyed.
3. In this family the authority of the older generation is not questioned.
4. In this family family members of the older generation set the rules.
5. In this family the word of the older generation is law.

CURRICULUM VITAE

Mahshid Jessri

Email: Mahshid.Jessri@Louisville.edu
Phone : 502-299-8200

EDUCATION

Aug. 2013 – May 2018	**University of Louisville, Louisville, KY** Ph.D., Entrepreneurship, College of Business Advisor: Professor Manju Ahuja Graduation: May 2018
Sep. 2011 – Aug. 2013	**Dalhousie University, Halifax, NS, Canada** M.Sc. (completed coursework), Department of Industrial Engineering
Sep. 2007 – Sep. 2011	**Amirkabir University of Technology (Tehran Polytechnic), Iran** B.Sc., Department of Industrial Engineering

Ph.D. DISSERTATION

Understanding the Role of Social Capital on Performance in Family Firms

“Social capital, which is a set of social resources embedded in networks and how it impacts firm performance, has been a topic of attention. In the past decade, one interesting form of social capital has become family social capital. In general, research on social capital has been inconclusive in relation to its effect on firm performance. One reason for the inconsistency may be due to different contexts. Therefore, this dissertation focuses on the family business research, and drawing from social capital literature, conducts the research through two perspectives of network mobilization and innovativeness. The first study examines family social capital as a multidimensional construct, and looks at the relationship among the dimensions: structural, cognitive, and relational. The relationship between family social capital and performance is studied through the mediating role of network mobilization, moderated by family firm identity. The second study focuses on the relationship between family social capital and firm performance through innovativeness perspective. Finally, this study investigates the moderating role of environmental munificence and family involvement."

Proposal Defense Date: April 10th, 2017
Final Defense: April 10th, 2018

Committee Chair:	Dr. Manju Ahuja
Committee Members:	Dr. Bruce Kemelgor
	Dr. Sandeep Goyal
	Dr. Dean Shepherd

TEACHING EXPERIENCE

Jan. 2018 – Apr. 2018 (2 Sections)	Instructor, "MGMT 401 - Operations Management", University of Louisville, Louisville, KY.
Jan. 2017 – Apr. 2017	Instructor, "MGMT 340/ENTR 350 - Entrepreneurial Creativity and Innovation", University of Louisville, Louisville, KY.
Aug. 2016 – Dec. 2016	Instructor, "MGMT 340/ENTR 350 - Entrepreneurial Creativity and Innovation", University of Louisville, Louisville, KY.
Aug. 2015 – Dec. 2015	Instructor, "MGMT 301 - Management and Organizational Behavior", University of Louisville, Louisville, KY.
Sep. 2011 – Aug. 2013	Research Assistant and Teacher Assistant, Dalhousie University, Halifax, Canada.

PUBLICATIONS AND WORKING PAPERS

Garrett, R.P., Semadeni, M., Covin, J.G., and **Jessri, M.** (working paper). The structuring of internal corporate ventures: Parent corporation- and venture-level considerations. Journal: *Strategic Entrepreneurship Journal.*

Jessri, M., Kosmidou, V., and Ahuja, M. (working paper). The Employee's Decision to Participate in Corporate Venturing: Financial and Non-financial Motivations.

Digan, S. P., **Jessri, M.**, and Mitchell, J.R. (working paper). A Review of Conjoint Analysis in Entrepreneurship Research: A Complexity Perspective. Target Journal: *Journal of Business Venturing*.

CONFERENCE PRESENTATIONS

Jessri, M. (2017). Social Capital, IT Identity and Performance in Family Firms. *Graduate Student Regional Research Conference*, University of Louisville, Louisville, KY.

Jessri, M., Kosmidou, V., and Ahuja, M. (2016). Corporate Employee Trade-Offs in Their Decision to Participate in Corporate Ventures, *Academy of Management Annual Meeting,* Anaheim, California.

Digan, S. P. and **Jessri, M.** (2016). Conjoint Analysis and Complex Decisions: A Methodological Review of Conjoint Analysis in Entrepreneurship Research. *Graduate Student Regional Research Conference,* University of Louisville, Louisville, KY.

Jessri, M., Kosmidou, V., and Ahuja, M. (2016). Corporate Employee Trade-Offs in Their Decision to Participate in Corporate Ventures. Poster presentation at the *Graduate Student Regional Research Conference*, University of Louisville, Louisville, KY.

Jessri, M. and Garrett, R.P. (2015). Internal Corporate Venture Planning Autonomy and Performance, *United States Association for Small Business and Entrepreneurship (SBE) conference*, Tampa, Florida.

AWARDS AND HONORS

Mar. 2017	**Certificate of Graduate Teaching Assistant Academy**, School of Interdisciplinary and Graduate Studies, University of Louisville, Louisville, KY.
Mar. 2017	**Finalist, Three Minute Thesis Competition**, School of Interdisciplinary and Graduate Studies, University of Louisville, Louisville, KY.
Sep. 2016	**Ph.D. Award of Excellence for Teaching**, Forcht Center for Entrepreneurship, University of Louisville, Louisville, KY.
Aug. 2016	**Best Reviewer Award**, Academy of Management Meeting, Entrepreneurship Division, Anaheim, CA.

Mar. 2016	**Finalist, Three Minute Thesis Competition**, School of Interdisciplinary and Graduate Studies, University of Louisville, Louisville, KY.

PROFESSIONAL SERVICE

Aug. 2017	Ad hoc reviewer, Academy of Management Meetings, Entrepreneurship Division, Atlanta, GA.
Aug. 2017	Session chair, "Family Business and Succession", Academy of Management Meetings, Atlanta, GA.
Aug. 2016	Ad hoc reviewer, Academy of Management Meetings, Entrepreneurship Division, Anaheim, CA (Best Reviewer Award).
May 2016 - Present	Ad hoc reviewer, Entrepreneurship Theory and Practice Journal.
Oct. 2015	Translation to Farsi (Persian) -- "Shepherd, D. A. (2015). Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing*, *30*(4), 489-507."

SCHOLARLY DEVELOPMENT

Theoretical-based Doctoral Courses

Semester	Subject	Instructor
Spring 2015	Sociological Foundations of Entrepreneurship Research	Dr. Howard Aldrich
Spring 2015	Strategic Perspectives of Entrepreneurship Research	Dr. Robert Garrett, Jr.
Fall 2014	Psychological and Cognition Perspectives	Dr. Dean Shepherd
Fall 2014	Economic Perspectives of Entrepreneurship	Dr. Simon Parker
Summer 2014	Contemporary Entrepreneurship	Dr. Scott Shane
Summer 2014	Quantitative Entrepreneurship	Dr. Per Davidsson
Spring 2014	Venture Capital Theories	Dr. James O. Fiet
Spring 2014	Theories of Opportunity	Dr. James O. Fiet
Spring 2014	Finance Theories	Dr. David Dubofsky
Spring 2014	Organizational Behavior and HR Issues	Dr. Ryan Quinn
Fall 2013	Foundations of Entrepreneurship Research	Dr. James O. Fiet
Fall 2013	Economic Theory of the Firm	Dr. Yong Chao

Methodological-based Doctoral Courses

Semester	Subject	Instructor
Spring 2015	Systematic Reviewing and Meta-Analysis	Dr. Jeffrey C. Valentine
Spring 2015	Hierarchical Linear Modelling (HLM)	Dr. Jill Adelson
Fall 2014	Advanced Statistical Computer Applications (SEM)	Dr. George Higgins
Summer 2014	Topics in Entrepreneurship Research	Dr. Pankaj Patel
Spring 2014	Multivariate Statistic Techniques	Dr. Namok Choi
Spring 2014	Advanced Research Design	Dr. Manju Ahuja
Fall 2013	Research Design/Methods	Dr. Manju Ahuja
Fall 2013	New Product Strategy/Marketing	Dr. Robert Carter
Fall 2013	Intermediate Applied Statistics	Dr. Marco Muñoz

REFERENCES

Manju K. Ahuja, Ph.D. (Ph.D. Dissertation Advisor)
Professor and University Scholar
Computer Information Systems Department
College of Business Room 384, University of Louisville
Office: (502) 852-4678
Email: manju.ahuja@louisville.edu

James O. Fiet, Ph.D. (Entrepreneurship Ph.D. Program Director)
Professor and Brown-Forman Chair in Entrepreneurship
Entrepreneurship and Management Department
College of Business Room 318, University of Louisville
Office: (502) 852-4793
Email: james.fiet@louisville.edu , jamesofiet@me.com

Dean A. Shepherd, Ph.D. (Dissertation Committee Member)
Ray and Milann Siegfried Professor of Entrepreneurship
Mendoza College of Business, University of Notre Dame
Email: Dshepherd@nd.edu