

TMT CHARACTERISTICS THAT POSITION FAMILY FIRMS FOR SUCCESS:
EXAMINING THE EFFECTS OF HUMAN CAPITAL, NON-FAMILINESS,
ENTREPRENEURIAL ORIENTATION, AND TRANSACTIONAL
MEMORY SYSTEMS

by

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Abstract

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Entrepreneurship is critical to family firm growth, profitability, and survival (Zahra 2005); however, entrepreneurship remains understudied in the family business context (Zahra and Sharma, 2004). Limited extant research suggests family firms act less entrepreneurially than their non-family counterparts but performance enhancements result from entrepreneurial actions (Litz and Klesen, 2001). Consequently, I explored the effects of human capital and non-familiness in the top management team on the group's transactive memory system (Wegner, 1987) and the organization's entrepreneurial orientation. In my sample, human capital in the top management team was positively related to the team's transactive memory system. Similarly, human capital was positively related to the firm's entrepreneurial orientation. Contrary to my expectations, non-family managers' participation in the top management team, referred to henceforth as TMT non-familiness, was not significantly related to the firm's entrepreneurial orientation. As expected, TMT non-familiness detracted from the group's transactive memory system.

Additionally, family firms have been described by stagnancy (Daily & Dollinger, 1992), limited growth prospects (Gumpert& Boyd, 1984), and nepotism (Vinton, 1998). However, I argued that the organization's transactive memory system and entrepreneurial orientation serve as mechanisms to leverage the talents of employees and bolster organizational performance. I found that a firm's entrepreneurial orientation is an important mediator of the relationship between human capital and performance. I also explored the relationship between entrepreneurial orientation and business sustainability, which has largely been ignored (Hall, Daneke, and Lenox, 2010). I found mixed results for the aforementioned relationships. Transactive memory systems are not significantly associated with organizational performance. However, entrepreneurial orientation relates positively to financial performance, social performance, and environmental performance.

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Chapter 1

Introduction

1.1 Introduction and Contributions of the Study

As a researcher with historical involvement in family businesses, I continually ask myself what it means to be a family business. While the answer seems imminently apparent from a practical standpoint (i.e., a business run by a family), the question has perpetuated a debate in the family business literature. Similarly, the boundaries of the academic field remain porous (Wortman, 1994). The entire field of family business rests on the assumption that family businesses are different from non-family businesses. If family businesses are not a distinct organizational form, there is no need for the academic field or a theory of the family firm (Chrisman, Chua, Sharma, 2003). However, the literature is replete with research that establishes differences between family and non-family firms. At the highest level, Anderson and Reeb (2003) demonstrated that Standard and Poor's 500 firms under the influence of families outperform those that are not controlled by families.

Differences between family and non-family businesses have also been observed across a multitude of other factors, including policies and ethics (Adams, Tashchian, and Shore, 1996), succession (Fiegener, Brown, Prince, and File, 1996; Gomez-Mejia Nunez-Nickel, and Gutierrez, 2001), environmental perceptions (Chrisman, Chua, and Steier, 2002), strategies and structures in the international context (Tsang, 2002; Zahra, 2003), governance (Randoy and Goel, 2003), and a portfolio of performance indicators (Gallo, 1995; McConaughy and Phillips, 1999; Westhead and Cowling, 1998). Therefore, cumulative empirical evidence suggests that there are tangible differences between family

and non-family businesses. However, some research failed to find significant differences (Coleman and Carsky, 1999; Gudmundson, Hartman, and Tower, 1999; Westhead, Cowling, and Howorth, 2001; Welsch, Hills, and Hoy, 1995), thereby suggesting the nature and degree of differences between family and non-family firms need to be further examined.

The resource-based view of the firm (Wernerfelt, 1984 and Barney, 1986, 1991) is a predominant theory that has been used to explain differences between family and non-family firms. Applying this theory, researchers have sought to identify resources unique to family firms that can be sources of competitive advantage. Habbershon and Williams (1999) were among the earliest to apply RBV to family firms and coined the term “familiness,” which describes “...the idiosyncratic firm level bundle of resources and capabilities resulting from the systems interactions” (p. 451. More generally, familiness refers to resources created by the interaction of family and business. However, Chrisman, Chua, and Steier (2005) noted, “...we do not yet fully understand sources or types of familiness (p. 238). Moreover, specific components of familiness remain elusive and some have referred to familiness as a “black box” (Pearson, Carr, and Shaw, 2008). Due to the limitations of defining familiness, five sources of family firm capital were identified by Sirmon and Hitt (2003) to differentiate family firms from non-family firms: human, social, survivability, patient, and governance structure. Of these five source capital, human capital is often viewed as the most fundamental (Dyer, 2006). I seek to extend these streams of research by identifying additional resources that can contribute to advantages in family firms.

As shown in Figure 1.1, I examine the impact of top management team human capital on the organization's entrepreneurial orientation (EO) and the top management team's transactive memory system (TMS). The idea is that human capital is a resource in firms that contributes to organizational performance is well-established (Hitt, Bierman, Shimizu, and Kochhar, 2001; Baum and Silverman, 2004; Cooper, Gimeno-Gascon; Woo, 1994); however, I hypothesize a mediated relationship between human capital and performance. I argue that human capital should be strategically acquired, developed, and leveraged to facilitate opportunity and advantage seeking behaviors (Ireland, Hitt, and Sirmon, 2003). Further, I posit that leveraging human capital has an effect through two mediators: EO and TMS. The organizational EO serves as a mechanism to harness the talents of the top management team for the benefit of the organization. Although a firm may have high levels of human capital, it will not realize the potential of its human capital without a high EO. When opportunities are identified, either purposely or serendipitously, there may be inaction in the absence of innovativeness, proactiveness, and risk taking perspectives (Covin and Slevin, 1987). Research demonstrates that higher levels of human capital facilitate the identification of more and superior opportunities for family firms in the construction and automobile industries (Davidsson and Honig, 2003). Thus, human capital is hypothesized to positively relate to organizations' EO.

In addition to the important relationship between human capital and EO, human capital bolsters the ability of TMT members to work effectively together through a TMS in the top management team (Wagner, 1987). Human capital is compulsory for effective teamwork. Conflict resolution, collaborative problem solving, communication, goal setting and performance management, and planning and task coordination represent

human capital that enhance the ability of group members to work coherently together (Stevens and Campion, 1994). Cognitive ability was positively related to group performance in teams of systems analysts (Hill, 1982). In a lab study, Williams and Sternberg (1988) demonstrated cognitive abilities were associated with group performance. Teams higher in general mental ability were associated with team performance and viability according to their supervisor ratings (Barrick, Stewart, Neubert, and Mount, 1998). Though the literature is devoid of examination of the relationship between human capital and the TMS construct in its totality, there has been consideration of the relationship between human capital and components of TMS. For example, human capital allows group members to better coordinate their actions (Stevens and Campion, 1994; Edwards, Day, Arthur, and Bell, 2006). Human capital results in group member specialization because the distribution of knowledge is better understood in the group, members recognize others' expertise, and develop their own expertise (Faraj and Sproull, 2000).

Sonefield and Lussier (2009) were amongst the first to introduce the notion of non-familiness. Non-family top managers bring with them unique biases, goals, values, management styles and characteristics that can erode the defining attributes of a family business. I assess TMT non-familiness in this dissertation by examining the proportion of non-family managers contained on the TMT. Thus, I will now discuss the deleterious effects non-familiness has on the TMS (Wegner, 1987). Non-family members' participation in family businesses' top management will bring both job-related and psychographic diversity. Diversity in the top management team can reduce communication (Zenger and Lawrence, 1989), increase turnover (Wagner, Pfeffer, and

O'Reilly, 1984), and create disharmony (O'Reilly, Snyder, and Boothe, 1993) all of which can detract from the top management team's coordination, credibility, and specialization. The literature universally postulated positive outcomes when non-family managers participate in family businesses (Chrisman, Chua, Kellermans, and Chang, 2007). The belief is the presence of non-family managers indicates the firm is professionally managed, legitimate, and additional skills are available to the organization. However, as suggested by Sonifield and Lussier (2009), further research is needed to determine at what point non-family managers and the resultant non-familiness detract from organizational performance. This research departs from that notion that non-family managers universally benefit the organization in that I hypothesize disruption to TMT TMS as TMT non-familiness increases.

However, the net effect of non-family managers on organizational performance may still be positive due to enhancements in entrepreneurial orientation stemming from the diversity and the associated benefits (Haleblian and Finkelstein, 1993). Diversity that non-family managers will bring to bear on decisions increases the perspectives and insights available to the team. These diverse perspectives and insights foster creative alternatives in decisions, effective decision making, and high-quality decisions (Cox, 1994, McLeod, Lobel, and Cox, 1996). Therefore, non-family members' contribution of human capital to an entrepreneurial orientation originates from their ability to contribute creative and effective organizational strategies which can result in strategic alternatives for the firm (Richard, Barnett, Dwyer, Chadwick, 2004).

In the second part of the model, I hypothesize a positive relationship between organizations' TMS and EO with organizational performance. Additionally, I posit a

positive relationship between entrepreneurial orientation and sustainability. Interestingly, based on my search of the literature, the literature is devoid of the establishment between TMT TMS and organizational performance. Within the strategy literature, TMT demography has a long history. TMT characteristics are associated with organizational level outcomes. For example, functional backgrounds, educational attainment, and organizational tenure increased the propensity for action and the magnitude of the actions undertaken (Hambrick, Cho, and Chen, 1996); heterogeneity amongst TMT size and tenure resulted in organizational innovativeness (West and Anderson, 1996); international experience predicts firm internationalization (Carpenter, Pollock, and Leary, 2003). Group TMS is positively related to group performance across a multitude of studies (Lewis, 2003; Austin, 2003; Liang, Moreland, and Argote, 1995; Moreland, Argote, and Krishnan, 1996) Thus, I expect TMT TMSs to be positively related to performance at the organizational level. Though the results between EO and organizational performance remain equivocal, the majority of the evidence suggests that EO does positively relate to firm performance (Covin and Slevin, 1989; Hult, Snow, and Kandemir, 2003; Lee, Lee, and Pennings, 2001; Wiklund and Shepherd, 2003; Dimitratos, Lioukas, and Carter, 2004; Lumpkin and Dess, 2001; Zahra, 1991; Unger, Rauch, Frese, and Rosenbusch, 2009). Moreover, an argument can be made that the positive relationship is stronger in family businesses which are founded upon successful paradigms, assumptions, and biases of the founder and the family members involved in the business (Ward, 1987). The cognitive schemas of founding families are not amenable to adaptation in an increasingly turbulent business environment (Hamel, 2000).

As sustainability becomes a more important topic of research across academic disciplines, entrepreneurship research has failed to consider the import of sustainability in contemporary business environments and engage in meaningful discussions (Hall, Daneke, and Lenox, 2010). There are compelling arguments that can be made about a relationship between EO and sustainability initiatives. Financial investments are necessary to develop sustainable organizations. The investments are made with uncertainty in benefits; family firms have limited ability to predict how consumers will respond to initiatives (Waddock and Graves, 1997. In some cases, consumers may view sustainability investments as exploitive (Devinney, 2009). Further, to develop such initiatives, family firms must proactively seek out opportunities for environmental and social initiatives.

1.2 Overview of the Dissertation

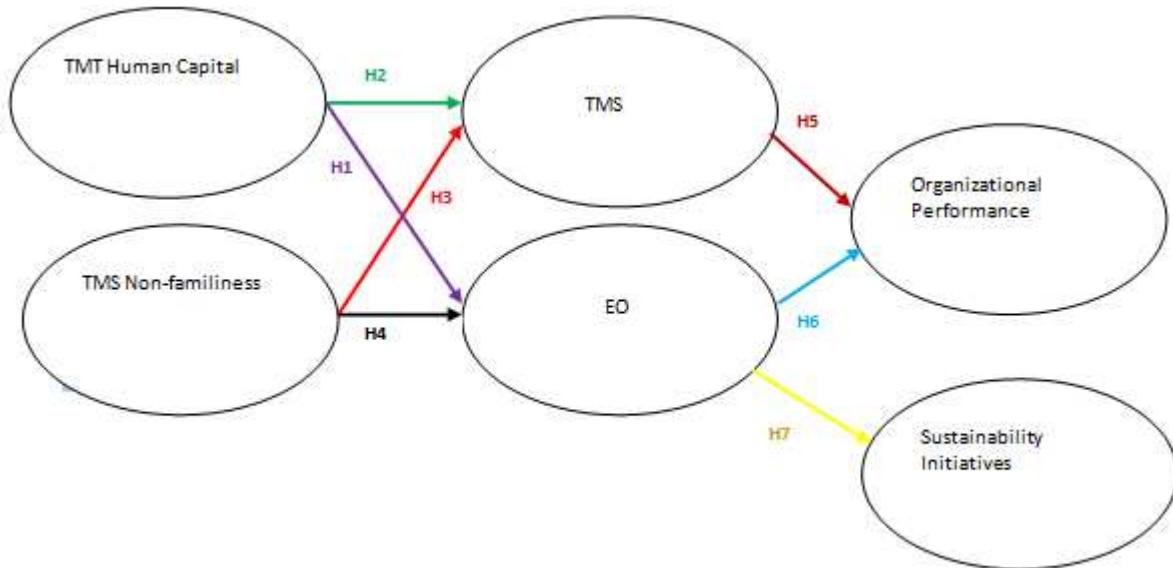
Chapter 1 sought to highlight substantive gaps in extant strategic management and entrepreneurship literatures where this dissertation makes contributions. The primary contributions this dissertation makes are as follows.

1. Establish human capital as an antecedent of entrepreneurial orientations in family firms
2. Identity and explain how non-family members enhance EO but simultaneously impede the development of TMSs
3. Establish EO and TMS as mediators of the relationship between human capital and performance in family firms.
4. Establish a relationship between EO with sustainability in family firms

Chapter 2 examines literature on family businesses, human capital, EO, TMSs, and sustainability to establish a basis for this research. In Chapter 3, I developed hypotheses to explain the relationships between TMT human capital with EO. Additionally, I hypothesize a mediated relationship with organizational performance where TMS and EO are the mediators. Chapter 4 describes the methods to be employed in this research. In that chapter, I describe the sampling frame, measurement of constructs, and the analysis techniques. Chapter 5 reports the results of my analyses, and this dissertation concludes with Chapter 6 wherein the limitations and suggestions for future research are considered.

The conceptual model examined herein is presented in Figure 1.1.

Figure 1.1: Conceptual Model



Chapter 2

Literature Review

2.1 Family Businesses

The study of family businesses was first reported in the early 1980s by researchers with personal interest in family businesses (Zahra and Sharma, 2004). Specifically, early family business research was carried out by academics with ties to family firms in the form of consultative relationship. As a result, the 1980's research lacked scientific rigor, as academic research was secondary to the consultative work (Handler, 1989; Wortman, 1994). The founders of family business research examined the issue most critical to family business owners which, at the time, was succession planning (Zahra and Sharma, 2004). Thus, early family business research largely examined how to transfer the firm from one generation to the next (Handler, 1989). Dyer and Sanchez (1998) reviewed 186 articles published in *Family Business Review* between 1988 and 1997 and observed the majority of articles still focused on succession. However, they noted 15 or more articles were also published on interpersonal family and business dynamics, firm performance, consulting to family firms, and gender and ethnicity in family firms. Thus, both the quantity and quality of research has increased profoundly. However, the lack of consensus on the definition of a family firm, both conceptually and operationally, has hindered the development of the field and advancement of knowledge.

A key challenge in the development of any field of research is establishing a conceptual and operational definition—a challenge to which family business research is not immune. Definition of the entity or phenomena under investigation is paramount to

the advancement of knowledge. In that vein, Handler (1989) emphatically asserted that the challenge for the study of family firms is defining what it means to be a family firm. The absence of a universal definition for family businesses is not indicative of a lack effort. Scholars have reviewed extant definitions and attempted to synthesize those definitions by offering their own modified definition (Chua, Chrisman, and Sharma, 1999; Handler, 1989; Litz, 1995). Unfortunately, for the development of the field, none of the posited definitions have “stuck” or become widely accepted (Handler, 1989). Astrachan, Klein, and Smyrnios (2002) suggested, through their F-PEC scale, that the definition of family businesses should allow for heterogeneity. That is, family firms should be assessed on a continuum which permits firms to vary in their degree of familiness. The F-PEC scale was developed by Astrachan, Klein, and Smyrnios (2002) to enable the assessment of family influence on a continuous scale rather than use a dichotomous, yes or no, variable. Three components are considered in assessing family businesses (power, experience, and culture). (1) The power subscale measures ownership, governance, and management and the degree to which family is involved in each of these. (2) The experience component subscale measures generation of ownership, generation active in management, generation active on the governance board, and the number of contributing family members. (3) The culture subscale measures overlap between family values and business values and the family’s commitment to the business.

Though nice in theory, the scale is difficult to implement in practice. Thus, researchers, even since the scale’s introduction, have primarily relied upon ownership and the TMT composition in the study of family firms (Daily and Dollinger, 1992; Dyer and Whetten, 2006; Gomez-Mejia, Nunez-Nickel and Gutierrez, 2001; Kellermanns and

Eddleston, 2007). In addition to ownership and control, some researchers have defined family firms by whether or not the firms consider themselves to be family firms (Westhead and Cowling, 1998); although, this definition has also faced its share of criticism (Chrisman, Chua, and Sharma, 2003). In this research, I defined family firms as firms that (1) have a significant amount of family ownership, (2) have family members in top management, and (3) characterize themselves as family firms. Therefore, family firms are those that are managed by a family, controlled through ownership, and identify as a family business. Previously, I established that tangible differences do exist between family and non-family businesses. Thus, I will review the most prominent theories to explain the behaviors of family firms and the differences between family and non-family firms.

2.1.2 Resource-Based View

The resource-based view (RBV) of the firm (Wernerfelt, 1984 and Barney, 1986, 1991) is commonly used to explain advantages derived by family firms in the market. Specifically, these scholars use the term “familiness” to describe a range of resources created by the interaction of family and business that can be a source of competitive advantage for family firms (Cabrera-Suarez, De Saa-Perez, and Garcia-Almeida, 2001; Habbershon and Williams, 1999). Habbershon and Williams (1999) were among the first to apply RBV to family firms and described “familiness” as a unique bundle of resources created by the interaction of family and business. Related to “familiness” is the notion of family firm capital. The definition of Family firm capital, provided by Sirmon and Hitt (2003), is similar to Habbershon and Williams’ (1999) conceptualization of “familiness” in that both describes advantages for family firms that are derived from the interactions of

work and family. Five sources of family firm capital were identified by Sirmon and Hitt (2003) that differentiate family firms from non-family firms: human, social, survivability, patient, and governance structure.

Human capital refers to the knowledge, skills and capabilities of an individual (Coleman, 1988). In family firms, human capital is more complex due to the dual relationships of family and employment. Social capital, as defined by Nahapiet and Ghoshal (1998, p. 243), is the “actual and potential resources embedded within, available through, and derived from the network.” The benefits of social capital can be accentuated in family firms where family members, in addition to their external networks, are more willing to share information with other family members (Barney, Clark, and Alvarez, 2002). Patient capital can be described as financial capital which is invested without concern for repayment in the short-term. Patient capital differs from traditional financial capital in non-family firms because family firms may not have access to equity or debt markets when equity is held within the family and the size of the family firm is not amenable to the bond markets (Sirmon and Hitt, 2003). However, the private nature of many family firms allows for extended investment horizons without need for results in the short-term (Dreux, 1990). Further, the desire to establish and transfer wealth across generations induces decision makers to manage capital efficiently (McConaughy and Phillips, 1999). Next, survivability capital describes access to capital within the family or through family that can be called upon to benefit the firm. Survivability capital can be drawn on to grow the family firm or remain solvent. Finally, the governance structure inherent in family firms combines ownership and management (Lubatkin, Lane, and Schulze, 2001).

2.1.3 Agency Theory

From the agency theoretic view, the combination of management and ownership within a family reduces agency costs (Chrisman, Chua, and Sharma, 2003). Based on Jensen and Meckling's (1976) model there are three reasons why family firms incur reduced agency costs when compared to non-family firms. Firstly, when owners are managers of the firm, differences in risk tolerance and related decisions to pursue opportunities begin to converge (Schulze, Lubatkin, Dino, and Buchholtz, 2001). Secondly, because of owners' personal involvement in the family business, shareholder wealth is not expropriated by managers acting in their own interests at the detriment of owners (Schulze, Lubatkin, Dino, and Buchholtz, 2001). Thirdly, familial ties reduce agency costs through disciplinary advantages and a reduced need for monitoring (Fama and Jensen, 1983). Therefore, family business researchers have speculated that family firms have performance advantages over non-family firms because of the reduced agency costs explained above (Daily and Dollinger 1992; Kang, 2000).

To sum, family firms possess varying levels of human capital, social capital, patient capital, survivability capital, and utilize different governance structures. These resources differentiate family firms from non-family firms and are evaluated, acquired, shed, bundled, and leveraged in a way that gives advantages to family firms (Chrisman, Chua, and Zahra, 2003). Of these five resources described above, human capital is patently the mostly strongly related to firm performance. Moreover, human capital is an important antecedent of TMSs and EOs (Lewis, 2003). Therefore, I consider the distinct roles of family and non-family human capital in the TMTs of family firms. Although human capital is important, firms need ways mechanisms to leverage the talent of their

employees in family firms. Otherwise, the human capital of employees may remain idle and the advantages unclear. Unfortunately, how human capital is leverage in family firms in an area that has been under researched to date (Sirmon and Hitt, 2003). I proceed by evaluating two mediators that have been over-looked in RBV's application to family firms: EO (Tan and Fock, 2001) and TMS (Lewis, 2003).

2.2 Entrepreneurship in Family Businesses

Increasingly, research attention is being devoted to family firms; although, there remains many contested questions within the field. At the most rudimentary level, the conceptual definition of family business and the subsequent operationalization is a point of contention. However, the contribution of family firms to the economy and the import of the research topic remain unequivocal. Colli (2003) suggested 90 percent of all US business may be family business while Anderson and Reeb (2003) argued about one-third of the largest U.S. companies were controlled by the founding family. Further, family businesses play a prominent role in the creation of employment opportunities, delivering innovation, and improving the quality of life for the general public (Astrachan, 2003).

The point of contention that serves as the impetus for this research is the general notion of risk orientation and its implications in family firms. Earlier scholars on family businesses contended family firms were risk averse (Ket de Vries, 1993; Aronoff and Ward, 1995, Sharma, Chrisman and Chua, 1997; Ward 1997). The reasons family firms are reluctant to take risks are numerous. Family businesses opt for equity over debt to mitigate the control risk wherein the family loses control over the firm (McConaughy, Matthews, and Fialko, 2001; Mishra and McConaughy, 1999) and to allow the continued extraction of private benefits from the firm. As agency theory argues, equity ownership is

related to risk tolerance in that managers increasingly act like owners as ownership increases and more risk is tolerated. (Beatty and Zajac, 1994; Denis, Denis, and Sarin, 1997). The lack of risk tolerance is exacerbated in family firms when a significant proportion of personal wealth is tied to the firm and failure could destroy that wealth (Schulze, Lubatkin, and Dino, 2002). More importantly, the leaders of family business must also be cognizant of the welfare of current family members as well as future generations. Failure, due to risk taking, could destroy the wealth of the family (Naldi, Nordqvist, Sjoberg, and Wiklund, 2007), tarnish the family name and diminish the reputation bestowed upon the family and its firm (Bartholomeusz and Tanewski, 2006), and jeopardize the inheritance of others (Ward, 1997). However, opponents of the aforementioned risk aversion provide cogent arguments which support risk taking in family firms (Aldrich and Cliff, 2003; Rogoff and Heck, 2003; Zahra et al., 2004). Zahra (2005) asserted, by the nature of the job, family business managers are risk-takers. These managers not only are subjected to variability in earnings which is common to all businesses, but also the idiosyncratic assets, culture, and managerial processes that can be deployed to create familiness inject additional risks for them. In this perspective, family managers are more inclined to take risks associated with an entrepreneurial orientation due to their history of risk taking. Further, the long-term nature and extended investment horizons of family businesses allows these organizations to pursue risky opportunities in a way non-family firms cannot (Zahra, Hayton, and Salvato, 2004). Moreover, familial ties that are created by the dual relationships of family and business enhance opportunity recognition (Barney, Clark, and Alvarez, 2003) and family managers understand the

firm's survival, growth, and wealth creation are dependent on innovation, thereby inducing them to pursue opportunities with inherent risks (Ward, 1997).

With the divergent views on risk orientation, the role of entrepreneurship within family firms comes to the fore. In addition to risk taking's centrality as a dimension in the EO scale, Lumpkin and Dess (pg. 144, 1996) assert, "firms with an entrepreneurial orientation are often typified by risk taking behavior...." Therefore, the debate on risk taking in the context of family firms can be extended to include entrepreneurial orientation (EO), including the degree to which an EO is present in a family business and consequences thereof.

2.2.2 Entrepreneurial Orientation

In non-family firms, there is an impressive and ever-evolving body of literature considering EO, which has become a central domain within the field of entrepreneurship (Rauch, Wiklund, Lumpkin, and Frese, 2009). The concept of EO can be traced to the strategy formulation literature (Mintzberg, 1978) where EO "represents the policies and practices that provide a basis for entrepreneurial decisions and actions" (1976, p. 246). Thus, EO is the entrepreneurial strategy-making processes that decision makers utilize to "enact their firm's organizational purpose, sustain its vision, and create competitive advantage" (Rauch, Wiklund, Lumpkin, and Frese, 2009; p.763).

Pursuant to this, I define EO as the processes, structures, and decision-making of firms that exemplify innovativeness, proactiveness, and risk taking (Covin and Slevin, 1989; Miller, 1983). Innovativeness represents a predilection to create new products, services, or processes or enhance existing lines through creativity, experimentation, and research and development (Lumpkin and Dess, 1996). Risk taking corresponds with

taking bold actions, including taking on debt or significant resource commitments, under uncertainty and ambiguity (Miller, 1983). Proactiveness is about beating your competitors to the punch and involves exploiting opportunities identified through careful scanning and monitoring of the environment (Covin and Slevin, 1989). Through Proactiveness, organizations can create first mover advantages by being first to enter markets, first to establish brand identity, first to implement new processes and procedures, and first to adopt new technology (Lumpkin and Dess, 1996).

Much of the early literature on EO considered the concurrent influence of innovativeness, proactiveness, and risk taking on performance, that is a unidimensional construct (e.g., Covin and Slevin, 1989; Miller, 1983; Miller and Friesen, 1978; Venkatraman, 1989; Covin, Slevin and Schults, 2004; Lee, Lee and Pennings, 2001; Naman and Slevin, 1993; Walter, Auer, and Ritter, 2006; Wiklund and Shepherd, 2003). Recent research has demonstrated an EO can occur with different combinations of the three dimensions at varying degrees which may relate divergently to firm performance (Dess and Lumpkin, 2006; Covin, Green, and Slevin, 2006; George, 2006). The latter line of research suggests firms can emphasize different dimensions of EO and take different pathways to entrepreneurial success. In this dissertation, I empirically examine the dimensionality of EO to determine the appropriate operationalization and proceed accordingly.

2.2.3 Entrepreneurial Orientation and Performance

Overwhelmingly, researchers have posited conceptual arguments that performance benefits emanate from EO (i.e. risk taking, proactiveness, and innovation). Innovation enhances profitability, growth, and survival prospects as existing product lines

face undefined future profit streams and perhaps obsolescent (Hamel, 2000). The need to innovate is exacerbated as the pace of technological change increases, products encounter shortened lifecycles, and future profit streams uncertain (Hamel, 2000). Unfortunately, a direct relationship between EO and performance is yet to be unequivocally established. Although the vast majority of the examined literatures postulate the aforementioned positive relationship between EO and performance, many previous researchers were unable to find a significant relationship between EO and performance (Covin, Slevin, and Schultz, 1994; George, Wood, and Khan, 2001). Others found a weak relationship (Dimitratos, Lioukas, and Carter, 2004; Lumpkin and Dess, 2001; Zahra, 1991) while others demonstrated the positive relationship suggested above (Covin and Slevin, 1986; Hult, Snow, and Kandemir, 2003; Lee, Lee, and Pennings, 2001; Wiklund and Shepherd, 2003). Others have even found a negative relationship between specific dimensions of EO and performance in certain contexts (Zahra, 2005).

The observed inconsistencies may be due to firm specific idiosyncrasies, market context, or general environmental factors (Tang, Tang, Marino, Zhang, and Li, 2008). Additionally, research on new ventures has demonstrated that these new firms may lack the requisite strategic resources to harvest the benefits of an EO (Hitt, Ireland, Camp, and Sexton, 2001). While new firms often lack essential financial, human, and network resources, the same can be argued for family businesses. Family businesses typically start small and remain small. As stated by Danco (1980), whom many consider to be the founder of family business research, family businesses fail because people do not make the decisions necessary to ensure vitality in an increasingly turbulent and complex

business environment. Therefore, family businesses are often characterized by inaction and business stagnation.

When I consider the resources necessary to exploit an entrepreneurial orientation in a family business, the well-documented financial resources are apparent, but human capital is a central resource that has often been overlooked. I argue human capital should be strategically acquired, developed, and leveraged to facilitate opportunity and advantage seeking behaviors (Ireland, Hitt, and Sirmon, 2003). Family businesses are built upon once successful paradigms, assumptions, and biases of the business founders or family of founders (Ward, 1987). Resources that are the source of previous successes often lack the ability to change to meet ever-changing environments. Leaders of family business may continue to embrace the behaviors that have resulted in past successes as the behaviors continue to diverge from environment imperatives. Thus, as discussed in subsequent sections, non-family managers influence firms' entrepreneurial orientation as they bring different backgrounds, assumptions, and biases to bear on decisions and creative processes.

Although there is a cumulative body of knowledge within the field of entrepreneurship that considers EO, the relationship between the presence of family members and non-family members on the top management team with EO and the performance implications of that relationship remains understudied for family firms and is poorly understood. Established research on the topic suggests the relationship between family members' participation in a business and the firm's ability to act entrepreneurially has received limited attention (Litz and Kleysen, 2001). Innovation researchers have ignored innovation in the family firms (Craig and Moores, 2006). The same issues, such

as performance, governance, and succession, dominate family business research while key issues, like entrepreneurship are routinely ignored (Zahra and Sharma, 2004). The notable absence of entrepreneurial orientation from the family business literature is disconcerting and serves as an impetus for this research.

2.2.4 Entrepreneurial Orientation in Family Firms

As Habbershon and Pistrui (2002) duly noted, the term family business, and study thereof, has been associated with small business (Boyd and Gumpert, 1984), stagnancy (Daily and Dollinger, 1992), nepotism (Vinton, 1998), conflict resolution (Prince, 1990), succession planning (Handler, 1992; 1994; Chrisman, Chua, and Sharma, 1998), and family management (Lyman, 1991). Thus, family business success, in extant literature, has been predisposed to disregard entrepreneurship and wealth creation and instead focus on establishing operational standards that can be shared across generations (Sorenson, 2000). Examination of the limited literature on EO in family businesses provides contrary findings to theoretical arguments that suggest performance benefits are an outcome of EO.

Naldi, Nordqvist, Sjoberg, and Wiklund (2007) considered three dimensions of EO (innovativeness, proactiveness, and risk taking) and their differential impacts on performance. Interestingly, risk taking was negatively related to performance while innovativeness and proactiveness did not appear to be related to performance in their sample. Further, on average, family firms took fewer risks than their non-family counterparts (Naldi, Nordqvist, Sjoberg, and Wiklund, 2007). This lends credence to the notion that family firms are conservative and have a low risk tolerance, discussed previously (Carney, 2005; Chandler, 1990; Meyer and Zucker, 1989; Schulze, Lubatkin,

and Dino, 2002). The observed risk aversion is partly explained by the family's concentrated ownership in the firm, which consistent with agency theory, results in family managers' reluctance to take risks. Moreover, family managers who are concerned with protecting the welfare of the family compound the risk aversion (James, 1999; Schulze, Lubatkin, and Dino, 2002). Risky initiatives that do not provide the intended results could jeopardize the well-being of the family and therefore strain personal relationships (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, and Moyano-Fuentes, 2007). Naldi, Nordqvist, Sjoberg, and Wiklund (2007) failed to consider the presence or absence of non-family members in management and their influence on decision-making. Therefore, the observed negative relationship found between risk taking and performance could be a result of risk taking that resulted in pecuniary benefits for the family at the detriment of organizational performance. In the same vein, the lack of diversity in decision makers could have resulted in sub-optimal decisions due to limited perspectives brought to bear on the risk-taking decision and limited formal analysis (Schulze, Lubatkin, and Dino, 2003; Schulze, Lubatkin, Dino, and Buchholtz, 2001).

Runyan, Droke, and Swinney (2008) considered EO as a unidimensional construct and demonstrated that for family firms in business 10 or fewer years, there was a positive relationship between EO and performance, yet the relationship dissolved for firms that had been in business for more than 10 years. While the results appear perplexing, they may suggest that the family business is an extension of the family's entrepreneurial orientation in the early years. The family continues to seek out exploitable opportunities within its cognitive domain. At some point, the family will exhaust opportunities within its cognitive domain and further entrepreneurship may result

in costly experimentation as the firm ventures away from its established sources of competitive advantage. While other studies have examined antecedents of EO in family businesses (e.g., Salvato, 2004), or derivatives of the EO (Kellermanns, Eddleston, Barnett, and Pearson, 2008), no research, to my knowledge, has explored how the relationship unfolds from antecedents of EO performance. Later, I explain how human capital and TMT non-familiness are primary resources that serve as antecedents to EO.

2.3 Transactive Memory Systems

A transactive memory system can be described as the “cooperative division of labor for learning, remembering, and communicating relevant team knowledge (Lewis, pg. 587, 2003).” Wenger (1987) developed TMSs to explain memory processes of intimate partners relative to other dyads. The phenomena under investigation led to the contention that close couples were able to facilitate the memory of one another and develop a means of encoding, storing, and retrieving information (Wegner, Erber, and Raymond, 1991). For example, if I were in an intimate relationship, as originally conceived by Wegner (1987), I may ask my partner to recall the date of a friend’s birthday. Over time, I may continue to ask my partner for birthdates. Because my partner is a source of this information, I can choose to focus my cognitive efforts elsewhere. I may become an expert on our personal finances. My partner would be free to develop her own expertise, like birthdays considered above. This creates a synergistic relationship between my partner and I; our TMS encompasses more knowledge than either of us possesses individually.

Wegner, Erber, and Raymond, (1991) extended the original conceptualization to include transactive memory systems in groups. However, group studies on TMSs remain

limited, and the bulk of published research on the issue was conducted in a laboratory. There is a paucity of research that examines TMSs in the field due largely to the absence of suitable measures (Lewis, 2003). Moreland, Argote, and Krishnan (1996) proffered a conceptualization of TMS that included three distinct manifestations of a TMS (specialization, credibility, and coordination). Specialization, credibility, and coordination are behaviors that encompass the TMS concept between two or more people. Lewis (2003) developed indicators of these three manifestations and therefore a scale to measure TMSs in the field. Taken in their totality, specialization, credibility, and coordination suggest the existence of a TMS since members develop specialized knowledge, trust and become dependent on other group members' knowledge, and coordinate that knowledge in an effective and efficient manner (Lewis, 2003).

Transactive memory systems describe a system in which members understand what others in the system know and use that information to develop complementary knowledge. Stated differently, members in a TMS understand what other members know and can rely on that knowledge. Therefore, members lack an incentive to develop the same knowledge. As a result, members of the group develop specialized knowledge. Specialization is a central part of TMSs; specialization improves the accuracy of the system in addition to facilitation of identification of individuals' specialized knowledge (Austin, 2003.) Confidence in the ability to rely on the other members' knowledge is critical to developing complementary knowledge. In the absence of that trust, members would attempt to develop redundant knowledge to hedge against the possibility that a member would withhold his or her knowledge (Lewis, 2003). Further, TMSs include the process by which members integrate their divergent knowledge (Wegner, 1987). Couples

demonstrated the ability to combine their individual knowledge efficiently and effectively through close coordination (Wegner, 1987). For the couples to combine their individual knowledge, each person would need to understand who knows what and how their complementary knowledge is related (Lewis, 2003).

The limited empirical studies on TMS provide evidence that TMSs increase group performance. Specifically, well-developed group TMSs have been associated with more relevant task-related knowledge available to the group and fewer errors in decision making than groups with less developed TMSs (Hollingshead, 1998; Liang, Moreland and Argote, 1995; Moreland, Argote, and Krishnan, 1998). Unfortunately, to my knowledge, no work has considered TMSs at the top management team level. This gap in the literature offers a significant opportunity given the established relationships between collective characteristics of the top management team and firm level outcomes. Family firms provide an ideal context to examine TMSs at the management level because of the interaction of the family and business relationship. Because of these dual relationships, the top management team in family firms may develop TMSs that are beneficial to the organization and its performance.

2.3.2 TMS and RBV

As noted by Wright, McMahan and McWilliams (1994, p. 304) “theoretical discussion is lacking regarding which specific resources are capable of serving as sustained competitive advantages, and in what circumstances resources are likely to generate a sustained competitive advantage.” Thus, TMSs may serve as valuable, rare, inimitable, and non-substitutable sources of competitive advantage (Barney, 1991). TMS is a resource that is associated with knowledge creation, assimilation, and utilization and

can be deployed to obtain competitive advantages. The knowledge embedded in the group structures and processes can be leveraged and deployed to obtain competitive advantages (Lewis, Lange, and Gillis, 2005). Additionally, the knowledge within the TMS will be enhanced and updated with exposure to each new task, and that knowledge can be redeployed as the group encounters new tasks which highlights the dynamic nature of TMSs. As stated by Lewis and colleagues (2005), “A TMS has broader benefits beyond the task for which it first developed because a TMS affects members’ ability to apply prior learning and develop a collective, abstract understanding of the task domain. From this view, TMSs are learning systems that enhance both group learning and individual learning as well as learning transfer across groups. Group learning occurs when individual members contribute their knowledge, that knowledge is evaluated, and combined with other knowledge in the group (Argote, 1999). Learning transfer occurs when knowledge gained from one situation yields learning or performance benefits in another situation (Singley and Anderson, 1989). Therefore, TMSs have relevance across a multitude of applications including innovation (Lazonick and Prencipe, 2005), new venture development (Keil, 2004), post-merger integration (Roy and Roy, 2004), capability development (Sako, 2004), service capabilities (Athreye, 2005), knowledge creation, absorption, integration, and reconfiguration (Verona and Ravasi, 2003), product development. TMSs are resources embedded in groups and their history of interactions. Further, the TMS encompasses more knowledge than any individual member’s repertoire of knowledge. Because members in the system recognize who knows what, knowledge can be combined effectively and efficiently to enhance performance. Said differently, members develop specialized knowledge that is different from knowledge possessed by

other members in the group. That knowledge is then brought to bear on decisions, in product development, and in exploiting other opportunities in order to benefit the organization.

2.4 Human Capital

Given the entrepreneurial process requires considerable knowledge (Kanter, 1985), higher levels of human capital are positively associated with entrepreneurial orientation (Souitaris, 2002). The human capital theoretic view contends knowledge is the basis of more productive and efficient activities (Schultz, 1959; Becker, 1964; Mincer, 1974). Thus, I expect teams of employees with human capital advantages to identify more or higher quality opportunities in the external environment. Further, once opportunities are identified, higher levels of human capital should be instrumental in the exploitation of the opportunities. Since human capital is a central part of opportunity identification and opportunity exploitation, it is not a stretch to expect human capital is instrumental in strategy formulation, implementation, and execution. The traditional assumption of human capital is that more is better for an organization and its performance (Davidsson and Honig, 2003).

Human capital, and its knowledge component, is the foundation of intellectual performance, which includes both knowledge accumulation and integration. Intellectual performance is rooted in the notion of absorptive capacity (Cohen and Levinthal, 1990). The “ability of a firm recognize the value new, external information, assimilate it, and apply it to commercial ends is critical to its innovative capabilities” defines absorptive capacity (Cohen and Levinthal, 1990, p. 128). The ability of a firm to acquire new

knowledge as the environment undergoes changes and combine that knowledge with existing organizational knowledge allows the firm to act entrepreneurially and remain innovative. While human capital is difficult to assess in organizations, educational level, tenure, and experience serve as valid proxies for the underlying cognitive abilities and expertise (Hambrick and Mason, 1984).

Education, often part of the operational definition of human capital (Bellu, Davidsson and Goldfarb, 1990; Evans and Leighton, 1989; Gimeno, Folta, Cooper, and Woo, 1997; Honig, 1996), is intended to develop explicit and tacit knowledge of individuals which, in light of absorptive capacity, should facilitate the identification of relevant knowledge, the acquisition of knowledge, and the subsequent integration. Education assists individuals in accumulating explicit knowledge (Davidsson and Honig, 2003). As stated by Smith, Collins, and Clark (2005 pg. 348), “Education helps individuals improve their understanding of what they know, more accurately predict outcomes, better manage time and resources, and more results.” Empirically, educational attainment has been associated with skills, knowledge, openness to change, and innovation (Datta and Rajagopalan, 1998; Wiersema and Bantel, 1992). Overall, education is a source of new information and explicit knowledge which can facilitate better performance across a wide-range of organizational activities.

Tacit knowledge resides in the minds of employees and is shared only with their consent (Spender, 1996). This knowledge is increased and accumulated through shared experience and developed over time (Smith, Collins, and Clark, 2005). As individuals continue to work in the firm and gain experience, they “learn by doing” (Pisano, 1994). Learning by doing represents conversions of explicit knowledge to tacit knowledge (Hitt,

Bierman, Shimizu, and Kochhar, 2000). Experience in the firm serves to develop firm specific and industry specific knowledge which accumulates over time (Hitt, Bierman, Shimizu, and Kochhar, 2000). As employees continue their employment with the firm, they acquire and develop a great deal of tacit knowledge which can be deployed to seize opportunities and creates advantages for the firm (Szulanski, 1996).

Human capital has taken an increasingly prominent role as a critical organizational resource (Pfeffer, 1994). Spender (1996) stated that firms' knowledge and their ability to create specific knowledge are central to the theory of the firm, while Grant (1996) suggested that knowledge is the most important resource a firm can control. Since much of the organizational knowledge resides in the minds of employees (Nonaka, 1994), the importance of human capital is apparent which is consistent with the human capital theoretic view that states employees own their own human capital (Becker, 1961; Schultz, 1961). Hitt, Bierman, Shimizu, and Kochhar (2001) demonstrated, overtime, investments in human capital were positively associated with firm performance which, they suggested, occurred through economies as well as synergies with other human assets. Similarly, general human capital is positively related to new venture survival and growth (Cooper, Gimeno-Gascon, and Yoo, 1994). While I do not disagree that human capital is beneficial to the organization, the story becomes more nuanced in family firms because although non-family members may enhance the benefits of HC, the mere presence of non-family members in top management roles may reduce the coordination, credibility, and specialization of that top management team. Therefore, next I discuss the role of non-family members in family business and the implications for the organization.

2.4.2 Non-family Participation in TMTs

A dominant coalition can be described as the individuals, or network of individuals, who have the greatest influence over organizational goals and strategies (Cyert and March, 1963; Pfeffer and Salancik, 1978). In the case of family firms, the families, by definition, control the firm. Although non-family members may work within the organization, they will likely have less control and influence on strategy formulation and execution. The dominant coalition, or family in this case, may view themselves as insiders and the non-family members as outsiders. Family managers may be distrustful of non-family managers and their knowledge, skills, and abilities due to divergent goals, values and less familiarity. The presence of non-family members in the decision-making processes patently injects diversity (heterogeneity in managers' attributes).

Voluminous research has considered the benefits and consequences of diversity within organizations, often providing inconclusive results. With respect to cognitive task performance, Bantel and Jackson (1989) found a positive relationship between diversity and performance while Murnighan and Conlon (1991) demonstrated a negative link between the two. Full explication of all the divergent findings regarding diversity is beyond the scope of this dissertation. However, importantly, when job related diversity (e.g. tenure and functional background) is compared to demographic diversity (social categorization often based on demographic attributes), they produce different types of conflict with differential impacts on performance. Job related diversity is more strongly associated with task conflict while demographic differences are associated with emotional conflict (Pelled, Eisenhardt, and Xin, 1999) where task performance is

positively related to group performance and demographic differences result in negative performance consequences.

When non-family members are present in TMTs of family businesses, by default, there is diversity in thought and backgrounds. Job-related diversity occurs when outsiders are present in a system of emotional relationships that have been formed outside the business amongst family members. Emotional relationships are extended to processes within the business and the idea that the business is an extension of the family (Churchill and Hatten, 1997). Demographic differences may be marginally influenced by non-family employees' participation in the business, but the resultant increase in psychographic diversity, which can be defined as differences in values, attitudes, beliefs and opinions (Priem, Lyon, and Dess, 1999), as a result of non-family members' participation, is undeniable. I expect members of the same family to share values, attitudes, beliefs and opinions but non-family managers who are raised in other beliefs system bring a different set of values. Non-family managers bring different knowledge inputs and allow different perspectives to bear on decision-making.

Much of the existing literature touts the benefits of diversity. Heterogeneity in firm decisions makers is necessary, as suggested by Ashby's (1956) law of requisite variety, to conceive and execute complex strategies in dynamic environments and results in higher performance in turbulent environments (Halebian and Finkelstein, 1993), increased innovativeness (Wiersema and Bantel, 1992), and more creativity (Bantel and Jackson, 1989). However, heterogeneity in decisions makers can also reduce communication (Zenger and Lawrence, 1989) increase turnover (Wagner, Pfeffer, and O'Reilly, 1984), and create disharmony (O'Reilly, Snyder, and Boothe, 1993) all of

which can inhibit the ability of management to function as a cohesive unit and soundly guide the organization (Priem, Lyon, and Dess, 1999).

As suggested, non-family members' participation in management creates two types of conflict, job-related conflict and emotional conflict which will differentially affect performance. Thus, non-family members' participation in the top management team and contribution of human capital to the firm may increase E) while simultaneously straining the TMS of the firm through increased emotional conflict.

2.5 Sustainability

Generally, sustainability refers to economic, social, and environmental performance. Specifically, for this dissertation, I define sustainability as, "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 8). Examination of the literature reveals sustainability embodies a wide of activities: adopting more environmentally friendly attributes in products and manufacturing processes, progressive human resource practices, reduction of carbon footprint through recycling and pollution contraction, and community promotion (McWilliams, Siegel, and Wright, 2006).

Just as agency theory has been utilized to explain behaviors in family firms, agency theory has been employed to explain corporate social responsibility and sustainability. Under this theory, Friedman (1970) argued that CSR initiatives are indicative of divergent interests between owners and managers. Specifically, managers pursue these initiatives to advance their own social, political, or career agendas, all of which detract firm resources from other value creating opportunities. Friedman's (1970) conceptualization of agency theory to explain why organizations act responsibly socially

has gained little footing. An alternative framework to explain CSR was proffered by Carroll (1979). This framework was entitled the corporate social performance framework (CSP) and includes the philosophy of social responsiveness, social issues involved, and social responsibility categories (Carroll, 1979). Although CSP has received empirical support (Waddock and Graves, 1997), stakeholder theory (Freeman, 1984) has emerged as the most dominant paradigm in CSR research (McWilliams and Siegel, 2001). From the stakeholder theoretic position, the firm has relationship with various stakeholder groups, and the firm is affected by the actions of these groups and the stakeholders affected by the actions of the firm (Freeman, 1984). In this view, firms must pursue responsible initiatives perceived to be important to stakeholders or stakeholders may not continue to support the focal firm. Stewardship theory is rooted in the notion that there exists a managerial imperative to do the right thing, including the pursuit of CSR, without regard for the outcome of the action (Jones, 1995). Further, according to Jones (1995), managers are rewarded with high returns when they act ethically, trustworthy, and honestly in transaction with repeat customers.

The traditional view of CSR and sustainability suggests the pursuit of green initiatives are associated with costs which are unlikely to be recovered (Carroll, 1979; Waddock and Graves, 1997). Moreover, the unrecoverable costs erode the competitive position of the firm. However, this paradigm is increasingly facing opposition (Porter and van der Linde, 1995). In fact, CSR and sustainability have been associated with better access to certain markets, increased revenue from selling green technology, enhanced relationships with stakeholders, reduced cost of materials, energy, and services, lower capital costs, and lower labor costs (Ambec and Lanoie, 2008). Firms are concerned with

profit maximization (Jensen, 1988), and sustainability must be viewed as a form of investment. According to McWilliams and Siegel (2001), consumer demand and demands from other stakeholders drive these investments. Consumers may seek socially responsible products, which allow the firm to differentiate its product. Through a firm's green initiatives, it can attract consumers whom seek to support causes of interest to them or ensure there is a viable Earth for future generations.

A firm's ability to deploy resources to create an environmentally and socially responsible organization represents a resource. This resource can be a source of sustainable competitive advantage when it is valuable, rare, inimitable, and non-substitutable (Barney, 1991). Sustainability initiatives can reduce labor, legal, materials, and service costs and has the potential to generate revenues through selling green technologies and enhanced differentiation. Therefore, the resource is valuable. Although environmental and social programs are common in large firms, when we consider SMEs, which of are interest in this research, survival in both the short and long terms are of primary concern. SMEs may simply lack the necessary financial capital, human capital, and time to develop and deploy environmental and social programs. As found in a survey of SMEs (Jenkins, 2004), although environmental programs and social programs are the right thing to do, responsibility to SMEs is exemplified by remaining profitable and supporting the community through continued employment. Additionally, Jenkins (2004) indicated small firms are uncertain of the benefits of CSR. Since engagement in these programs is limited in SMEs, I would argue the rare criterion is satisfied. Imitability is a more complex issue, as nearly every resource can be imitated in the long-term. However, in the short-term, causal ambiguity and path dependence inhibit imitation. Additionally, a

firm's environmental and social reputation is imperfectly imitable (Russo and Fouts, 1997). Reputations cannot be acquired on the open market and are developed over an extended period. Reputations are the result of socially-complex interactions (Rao, 1994). Substitutability refers to the ability of another resource or bundle of resources to serve the same function as the focal resource. Reputations, as a result of social and environmental performance, are difficult to substitute because they reduce the risk to consumers in an exchange relationship (Kotha, Rajgopal, and Rindova, 2001). The benefits of sustainable organizations have been described above, but one must ask what leads firms to adopt such an orientation. I argue below that an entrepreneurial orientation is an antecedent of sustainability and CSR initiatives.

2.5.5 Entrepreneurial Orientation and Sustainability

Although important, the relationship between entrepreneurship, specifically entrepreneurial orientation, and sustainable development has received limited academic attention. In Hall, Daneke, and Lenox's (2010) review of the leading entrepreneurship journals, they noted only one paper in the *Journal of Business Venturing*, one paper in *Entrepreneurship: Theory and Practice*, one paper in *Family Business Review*, and another in *Small Business Economics* that have considered sustainable development as a central theme. The absence of sustainability in entrepreneurship journals is not indicative of its lack of importance. In fact, the Schumpeterian (1942) notion of creative destruction has been cited when sustainable development and pressure to adopt sustainable practices by external constituencies creates markets failures which provides opportunities for entrepreneurs to enter markets and resolve the market failures (Hockerts and Wustenhagen, 2010; Cohen and Winn, 2007).

An entrepreneurial orientation, in this work, is comprised of three dimensions, risk taking, innovativeness, and proactiveness. According to Menon and Menon (1997), sustainable development involves risk from three sources. First, the initiatives may be viewed as deceptive and exploitive if the organizational practices and claims do not match consumer expectations for environmental performance (Varadarajan and Menon 1988). For example, BHP-Billiton, an Australian firm, regularly receives high performance ratings on responsibility surveys (Global Reporting Surveys) because they are environmentally responsible based on the metrics employed by the agency, yet the company is aspersed by environmentalists (Devinney, 2009). Second, consumer preferences are not well defined as buyers seek environmentally and socially responsible products and firms, and their preferences may not be consistent with their actions (Devinney, 2009). This suggests that although consumers may indicate they prefer socially responsible organizations, they may not invest time to search and seek environmentally friendly organizations (Fierman, 1991). Further, consumers may not abandon their established relationships with brands for more sustainable products and organizations or sacrifice performance, quality, and value attributes to get a green product. Third, sustainable development is still in its infancy and the risk associated with being a first mover or market pioneering come to the fore.

More fundamentally, sustainable development requires investment. To design or redesign a business enterprise for sustainability requires significant and irreversible investment. These investments are made under uncertainty and ambiguity. The organization is unable to determine definitively how consumers will respond to sustainability initiatives and therefore returns on the investments. The investments in

sustainable projects, particularly in young organizations with limited resources, may threaten the very solvency of the firm. Moreover, each part of the value chain requires integration to optimize environmental performance. The culture of the organization and attitudes of employees must be developed or modified to reflect the concern for the environment. In essence, sustainability necessitates commitment throughout the organization in terms of time, financial resources, and personnel. Clearly, risks are associated with going green. Firms commit significant time, financial capital, and other resources to become environmentally and socially responsible without known outcomes.

Recall that sustainability involves activities above mere compliance with laws and other regulations (McWilliams and Siegel, 2001) while proactiveness is about beating your competitor to the punch. That is, taking bold actions before your competitors (Covin and Slevin, 1989). Firms with a proactive orientation will actively seek out opportunities, including environmentally friendly products, services, or processes, that may reduce costs, bolster top line revenues, or reflect the personal ethos of managers. Without a proactive orientation, firms and managers will not actively search for environmentally friendly policies, practices, and products. Moreover, even when opportunities are identified serendipitously, there may be inaction.

Research has characterized innovativeness as a tendency to create new products, processes, services, or revise and update existing lines through experimentation and research and development (Covin and Slevin, 1989). Firms use innovativeness to develop and deploy processes, policies, services and products that conserve the Earth for future generations. Environmentally conservative technologies may be available to firms on the open market. However, the adoption and integration of these technologies into the

firm is also consistent with an innovative orientation, as the firm revises each activity in the value-chain to optimize environmental performance. Overall, EO will result in the potential to become greener.

2.6 Conclusions from Literature Review

This chapter identifies gaps in the literature that this dissertation addresses. First, the effects of human capital on both the organization's EO and TMS are not addressed by existing research. I argue that TMS and EO are important mediators of the human capital and organizational performance relationship (Cooper, Gimeno-Gascon, and Woo, 1994; Hitt, Bierman, Shimizu, and Kochhar, 2001). Further, I develop theoretical arguments to suggest the presence of non-family managers (i.e. TMT non-familiness) diminish the trust and cohesion of the TMT that, in turn, detracts from the development and utilization of TMSs at the top management level.

I also maintain that both transactive memory systems and entrepreneurial orientations positively contribute to family firms' performance. This contributes significantly to the extensibility of TMS given there are few field studies on the construct (Lewis, 2003). TMS research has been primarily confined to the lab wherein groups are assembled specifically to study the construct (Austin, 2003). These newly formed groups in the lab have been a limitation of this stream of research as transactive memory systems are developed over time through shared experiences. Additionally, this research is among the first to establish the relationship between TMS and organizational performance. Previous research provided evidence that TMSs contribute to group performance but not organizational level outcomes (Lewis, 2003; Austin, 2003).

Finally, there is an absence of research that considers how EO influences sustainability initiatives (Daneke, and Lenox, 2010). Therefore, I develop arguments that posit that EO is an antecedent of green and social initiatives.

Chapter 3

Theory and Hypothesis Development

3.1 Hypotheses

3.1.1 H1: TMT human capital is positively associated with EO

I propose that human capital will increase the organizational EO. If opportunities exist, individuals with high levels of human capital should have an advantage in identifying the opportunities and subsequently exploiting those opportunities (Davidsson and Honig, 2003). In their sample, human capital, including tacit and explicit knowledge, was associated with identifying entrepreneurial opportunities and profiting from those opportunities. Human capital influences entrepreneurial discovery and implementation of innovative ideas which results in establishment of more new firms (Acs and Armington, 2004). Human capital is required to recognize an opportunity, select the appropriate market and channel to reach consumers, organize the firm to capitalize on the opportunity, and hire the appropriate employees (Acs and Armington, 2004). Moreover, organizations with high levels of human capital promote a willingness to capitalize on its knowledge by engaging in entrepreneurial activities (Wiklund and Shepherd, 2003). Human capital allows firms to better assess the potential benefits and risks of opportunities (Cohen and Levinthal, 1990).

Human capital provides firms with insights to understand what the customer wants and how to develop products or services to meet those needs. Increased knowledge augments firms' risk tolerance as firms with high level of human capital have a better grasp of how to produce products or services consumers' desires. Additionally, individuals possessing human capital will have more confidence in their own abilities,

further fostering an entrepreneurial orientation. In addition to the benefit of general human capital, family human capital contributes to an organizational entrepreneurial orientation due to relationships that extend beyond the boundaries of the organization. Family members will share both professional and familial relationships. Because of this dual relationship, I expect increased formal and informal communication between family managers. As a result, these family members have an opportunity to create new knowledge combinations by establishing associations between their existing knowledge (Cohen and Levinthal, 1990), and that opportunity is enhanced through the effective communication (Dyer and Singh, 1998) inside and outside of the organization. Informal communication, which I contend is more common amongst family members, significantly increases cooperation in teams (Pinto and Pinto, 1990).

Informal communication among colleagues increases knowledge exchange which can result in identification of opportunities (Argote, McEvily, and Reagans, 2003). In fact, knowledge exchange can occur inadvertently or unconsciously through informal communication (Swap, Leonard, Shields, and Abrahams, 2001). That is, family members may exchange knowledge when there is no intent while communicating. Furthermore, informal communication, which results in knowledge sharing, may lead to formal communication and subsequent innovation. In other words, an idea may be introduced in an informal meeting. The communication of that idea leads to a formal meeting to explore the new idea. The formalized examination of the idea in a more detailed manner may direct the organization to a new product, service, or process (Heusinkveld and Bender, 2005). Based on extant research, human capital, including market experience, management experience, and previous entrepreneurial experience, is significantly and

positively associated with entrepreneurial activity (Bates, 1995; Gimeno, Folta, Cooper, and Woo, 1997; Robinson and Sexton, 1994). Knowledge is critical to both the discovery and exploitation of entrepreneurial activities (Davidsson and Honig, 2003). Therefore, I hypothesize that TMT human capital is positively related to the organizational EO.

Hypothesis 1: TMT human capital is positively associated with EO (risk propensity, innovativeness, and proactiveness).

3.1.2 H2: TMT human capital is positively associated with TMS (specialization, credibility, and coordination)

Hypothesis 2 relates TMT human capital to the TMT's transactive memory system in family firms. With respect to the knowledge, skills, and abilities possessed by members in the top management team, the human capital theoretic view (Schultz, 1959; Becker, 1964; Mincer, 1974) argues knowledge increases cognitive abilities, which results in more efficient and productive activity. In addition to integrating and adapting to new situations, human capital assists in the integration and accumulation of new knowledge (Weick, 1996). Human capital is, therefore, critically important to the development of a top management team TMS. It is necessary to encode, decode, and integrate information contained in the team's TMS. Human capital, as suggested above, is related to the acquisition of new knowledge. This helps to ensure the knowledge contained in the TMS does not become obsolete, including the meta-knowledge of who knows what.

A partition of the human capital literature addresses team members' knowledge, skills, and abilities which are compulsory to work in a team. Stevens and Campion (1994) hypothesized that conflict resolution, collaborative problem solving, communication,

goal setting and performance management, and planning and task coordination represent human capital necessary to be part of an effective team. McClough and Rogelberg (2003) evaluated the degree to which Stevens and Campion's (1994) manifestations of human capital in groups contributed to higher levels of individual performance. Their results indicate that human capital predicts individual performance in groups.

The above research considers the relationship between human capital and individual performance in a group. In addition to individual performance, a body of research looks at the relationship between the aggregation of individuals' human capital and group performance. Cognitive ability was positively related to group performance in teams of systems analysts (Hill, 1982). In a lab study, Williams and Sternberg (1988) demonstrated cognitive abilities were associated with group performance. Teams higher in general mental ability were associated with team performance and viability according to their supervisor ratings (Barrick, Stewart, Neubert, and Mount, 1998). While the relationship between human capital and team performance is relatively well-established, far less research considers the relationship between human capital and the development of TMSs.

However, research has considered the relationship between human capital and specific components of TMSs. For example, coordination is a central dimension in my conceptualization of TMS, and human capital facilitates greater coordination of team activities (Stevens and Campion, 1994; Edwards, Day, Arthur, and Bell, 2006). As members work together as part of the top management team in a family firm, they develop knowledge about others' skills, knowledge, relevant tasks, common terminology,

and the environment. These shared experiences allow the members to better coordinate and synchronize their actions for the firm's benefit (Berman, Down, and Hill 2002).

The inherent complexities of strategic management compel managers to develop and contribute knowledge from unique domains. Diverse knowledge allows top management to effectively accomplish organizational goals. The possession of unique knowledge is indicative of member specialization. Additionally, for members to develop a specialization, individuals on the top management team would need to have the requisite skills in that specialty area. Prior research suggests that the emergence of TMSs and subsequent structure are dependent upon members' preconceptions about one another (Hollingshead and Fraidin, 2003). Due to the historical interaction of managers, individuals know other members' specialization and are incented to develop different but complementary knowledge (Hollingshead, 2001). Faraj and Sproull (2000) found that team members' human capital and prior knowledge are the basis of this specialization for two reasons. First, it contributes to the development of the meta-knowledge of who knows what which allows individuals to identify areas in which they can specialize and contribute. That is, members of the top management team recognize other members' expertise. Second, prior knowledge and absorptive capacity (Cohen and Levinthal, 1990) allow managers with high levels of human capital to develop their own expertise or specialization.

Overall, I hypothesize that the aggregate level of human capital on an organization's top management team will be positively related to the TMT's TMS. Specifically, human capital is positively related to higher levels of specialization in the top management team. Human capital allows members to understand how knowledge is

distributed throughout the group. Understanding of knowledge distribution within the group helps other individuals identify deficiencies in the TMS or areas in which they could develop a specialization and make a contribution. Further, members of the TMT with high levels human capital have the requisite knowledge, skills, and abilities to develop a specialization. With respect to credibility, familiarity of TMT members brings salience to their respective skills, knowledge, and abilities. Confidence in other members' contributions (i.e., information, decisions, and specialization) to TMSs are enhanced when members possess high levels of human capital. Human capital allows the group to rely on a single individual for contributions pertaining to his or her specialization. Trust results in other team members developing unique specializations. When a top management team member has low levels of human capital, other members develop overlapping knowledge. The group has little confidence in the work of an individual whose human capital is lacking. Overlapping knowledge undermines a TMS. Therefore, human capital is necessary to develop an effective TMS with credibility.

Finally, coordination is enhanced when members of the TMT have high levels of human capital for the following reasons. For members to combine their individual knowledge, each person needs to understand who knows what and how their complementary knowledge is related (Lewis, 2003) which represents a form of human capital. Ellis, Bell, Ployhart, Hollenbeck, and Illgen (2005) found that human capital increased teamwork competencies and greater proficiency in planning, task coordination, collaborative problem-solving, and communication, all of which will increase coordination in a transactive memory system. Coordination, therefore, is enhanced with members of the top management team have high levels of human capital by allowing

individuals to recognize how knowledge is distributed throughout the system, how that knowledge fits together, and how that knowledge can be recombined to maximize organizational performance.

Hypothesis 2: TMT human capital is positively associated with TMS (specialization, credibility, and coordination).

3.1.3 H3: TMT non-familiness is negatively associated with TMS (Specialization, Credibility, and Coordination)

Although the general comments on human capital that related family human capital to the top management group's transactive memory system still apply to non-family managers' contribution to the development and utilization of the TMT's transactive memory system, the role of non-family members is more nuanced due to diversity of non-family members. Non-family members' participation in family businesses top management will bring both job-related and psychographic diversity. Extant strategy research has considered demographic diversity and the implications for cognitive task performance (e.g., Bantel and Jackson, 1989; Murray, 1989; Eisenhardt and Schoonhoven, 1990). Although the literature is replete with such studies, the results of those studies remain equivocal. For example, research has proposed and subsequently supported a positive relationship between workgroup diversity and task performance (Bantel and Jackson, 1989). Other research has provided evidence that team diversity yields negative performance consequences (Murnighan and Conlon, 1991).

The inconsistent findings are ascribable to what Lawrence (1997) deemed "black box" studies which do not measure intervening process variables. Pelleg, Eisenhardt, and Xin (1999) implored researchers to espouse more sophisticated theories to explain the

relationship between group diversity and performance. I utilize Wegner's (1987) TMS theory to capture the relationship between TMT non-familiness and performance. Below I summarize some key findings in this stream of literature. Diversity in the top management team can reduce communication (Zenger and Lawrence, 1989) increase turnover (Wagner, Pfeffer, and O'Reilly, 1984), and create disharmony (O'Reilly, Snyder, and Boothe, 1993) all of which can inhibit the ability of management to function as a cohesive unit and soundly guide the organization (Priem, Lyon, and Dess, 1999). Additionally, Jehn (1995) argued that dissatisfaction, which arises from diversity related conflicts, results in team member avoidance of working with other team members with whom they experience conflict. The above consequences of TMT non-familiness impede the development and use of the TMT's transactive memory system. Overall, the conflict associated with diversity in the top management team of family businesses can be disruptive to the establishment of a transactive memory system.

When non-family managers participate in a family business and increase TMT non-familiness, I expect there to be less trust amongst the group. Diminished trust in non-family TMT members encourage family managers to develop overlapping skills. Diverse non-family managers have less trust granted to them, and there is less cooperation between members of the top management team (Brewer, 1979; Brewer and Brown, 1998; Tajfel and Turner, 1986). Additionally, group cohesion (O'Reilly et al. 1989) and turnover will be adversely influenced (Wagner, 1987). Trust, cooperation, communication, and group longevity are central to the development of an effective transactive memory system.

With respect to specialization, meta-knowledge is needed to understand who knows what and how that knowledge relates to other pieces of knowledge. When there is conflict in the top management team ascribable to diversity, meta-knowledge is not as readily communicated to other members. Further, because of reduced trust in the group, TMT members` are more likely to develop overlapping skills as opposed to unique and complementary skills. This is a result of the diminished trust in non-family managers' motivation and ability to act in the best interest of the family business. Non-family managers could hoard knowledge or information to the detriment of the firm if they are dissatisfied with the dynamics of the team or some part of the organization. Moreover, if human capital and knowledge reside in the minds of the managers, reduced tenure of non-family managers discourage the development of specializations. Family managers hedge against the exit of members with specialized knowledge or skills important to the success of the firm. Therefore, less specialization would occur as the number of non-family managers who participate in management and the sum of their human capital increases.

Informal and formal communications bring salience to the respective skills, knowledge, and abilities of family managers. Non-family participants in management do not share the same level of informal communication as family managers. In addition, the instability or lack of tenure associated with non-family managers creates fewer opportunities to gain familiarity with non-family managers which may hurt their credibility. The lack of familiarity may result in the absence of trust in members's abilities since trust is developed over time. The inherent demographic and psychographic diversity non-family managers bring to the top management team compounds the issue of

familiarity or absence thereof. To restate the consequences, heterogeneity in decision makers can reduce communication (Zenger and Lawrence, 1989) increase turnover (Wagner, Pfeffer, and O'Reilly, 1984), and create disharmony (O'Reilly, Snyder, and Boothe, 1993) all of which can inhibit the ability of management to function as a cohesive unit and soundly guide the organization (Priem, Lyon, and Dess, 1999).

Jehn (1995) argued these manifestations of team diversity cause in-group members (family members) to avoid out-group members (non-family members). In addition to the above, non-family members' divergent views, values, and goals decrease trust in the group (Ancona and Caldwell, 2002). Non-family managers' views, values, and goals may be in direct conflict with those of family managers. For example, family managers may be desirous of wealth creation for the family, pecuniary and non-pecuniary family benefits, and transgenerational wealth transfer, whereas non-family managers may be more concerned with self-promotion, career advancement, and personal wealth creation. Therefore, trust and credibility in the TMS deteriorate as TMT non-familiness increases.

Diversity brought by those non-family members can result in a lack of communication, cooperation, and cohesiveness, all of which threaten coordination and the desire to work together. Coordination refers to the ability of managers to effectively work together with few misunderstandings which allows the teams to efficiently complete tasks. With TMT non-familiness, misunderstandings may arise out of different values, views, goals, and assumptions by diverse managers, but when social categorization and family versus non-family is considered, diverse members of the TMT may not have desire to work together. Top management team non-familiness has the

potential for in-group members (family members) to avoid out-group members (non-family members) (Jehn, 1995) when conflicts arise. Therefore, the TMS deteriorates as TMT non-familiness increases.

Hypothesis 3: TMT non-familiness is negatively associated with TMS (Specialization, Credibility, and Coordination)

3.1.4 H4: TMT non-familiness is positively associated with EO.

The Law of requisite variety argues heterogeneity in decision makers is necessary to conceive and execute strategies in complex environments (Ashby, 1956). Diversity in the top management team results in higher performance in turbulent environments (Haleblian and Finkelstein, 1993), increased innovativeness (Wiersema and Bantel, 1992), and more creativity (Bantel and Jackson, 1989). Moreover, the diversity that non-family managers bring to bear on decisions increases the perspectives and insights available to the team. Diverse perspectives and insights foster creative alternatives in decisions, effective decision making, and high-quality decisions (Cox, 1994, McLeod, Lobel, and Cox, 1996). Therefore, non-family members' contribution to an entrepreneurial orientation originates from their ability to contribute creative and effective organizational strategies which can result in strategic alternatives for the firm (Richard, Barnett, Dwyer, Chadwick, 2004).

One of the most considerable risks to a family business is control risk (Mishra and McConaughy, 1999). Hiring non-family managers demonstrates risk taking since some control is conceded to that manager. Additionally, new perspectives contributed by non-family managers may lead to the recognition of opportunities, more thorough consideration of the potential benefits, and increase the skills available to exploit an

opportunity. Management heterogeneity indicates diversity of information perspectives which results in creativity and innovativeness (Wiersema and Bantel, 1992). Diverse human capital, in general, precedes innovation (Hitt, Bierman, Shimizu, and Kochhar, 2001). Diverse TMTs identify new sources of opportunities and provide new perspectives to take bold actions (Lee and Peterson, 2000)

Hypothesis 4: TMT non-familiness is positively associated with EO (risk propensity, innovativeness, and proactiveness).

3.1.5 H5: EO is positively associated with organizational performance

The general theme in today's business environment is a reduction in product and business process lifecycles (Hamel, 2000). As a result, future success and profitability from existing products and processes is uncertain. To earn a living in the future, firms may need to adopt an entrepreneurial orientation (Wiklund and Shepherd, 2005).

Organizations sustain performance by espousing a willingness to innovative by revamping existing products or services or by creating entirely new offerings, taking risks by exploring new markets, products, or services, and taking bold competitive actions before competitors (Covin and Slevin, 1991). Although the relationship between entrepreneurial orientation and performance has not been consistently supported (Smart and Conant, 1994; Hart, 1992), typically there is a positive relationship (Covin and Slevin, 1989; Hult, Snow, and Kandemir, 2003; Lee, Lee, and Pennings, 2001; Wiklund and Shepherd, 2003; Dimitratos, Lioukas, and Carter, 2004; Lumpkin and Dess, 2001; Zahra, 1991). Furthermore, Unger, Rauch, Frese, and Rosenbusch (2009) completed a meta-analytic review of the entrepreneurial orientation construct and its relationship with

performance. There results indicate a moderately large (Cohen, 1977) and positive correlation of .242.

For family firms, described in the literature as risk averse and stagnant, an entrepreneurial orientation is more central to performance than firms characterized by separation of ownership and management on which the majority of previous research has been conducted. A family business was founded upon a successful paradigm, assumptions, and biases of the founder and the family members involved in the business (Ward, 1987). However, the cognitive schemas are inflexible and ill equipped for adaptation to an increasingly changing business environment described by Hamel (2000). To remain successful and transfer wealth across generations, family firms need to embrace the changing environment and make change the firm's constant ally through an entrepreneurial orientation. Otherwise, the sources of past success will continue to diverge from the changing environmental imperatives which may result in organizational insolvency. Previous literature has argued performance advantages of an entrepreneurial orientation are achieved through market pioneering. This involves the creation and introduction of new products or services or through updating existing lines (Cheney, Devinney, and Winer, 1991; Lengnick-Hall, 1992). This allows the pioneering firms to target the most profitable market segments which are largely uncontested, engage in premium pricing, gain exclusive or favorable access to distribution channels, and establish products or services and industry standards (Zahra and Covin, 1995) or reduce costs through process innovations. Therefore, I hypothesize the following:

Hypothesis 5: EO (risk propensity, innovativeness, and proactiveness) is positively associated with organizational performance.

3.1.6 Hypothesis 6: TMS is positively associated with organizational performance

To my knowledge, there is no research that establishes the relationship between a top TMT TMS and organizational performance. However, laboratory studies provide compelling evidence that group transactive memory systems enhance performance of the group. Hollingshead (1998) demonstrated teams with a transactive memory system could recall significantly more information previously presented to them while Moreland (2000) provided evidence that undergraduate teams which developed a transactive memory system had higher performance. Newly formed workgroups who developed transactive memory systems experienced performance benefit in assembling AM radios (Liang, Moreland, and Argote, 1995; Moreland, Argote, and Krishnan, 1996). In a field study, Lewis (2003) demonstrated with a sample of 27 teams from technology companies that groups with transactive memory systems received higher team performance evaluations from managers. Austin (2003) demonstrated groups possessing transactive memory systems were better able to achieve their goals, rated higher by external evaluators, and received higher performance ratings by group members.

The above suggests that transactive memory systems at the top management team could bolster organizational performance. Further, top management teams are the most important group to firms' overall performance as they are responsible for formulating and executing organization-wide strategies. Thus, the relationship between transactive memory systems and organizational performance has the potential to be stronger in top management teams than lower level teams. Moreover, extant research has primarily utilized newly formed groups for the express purpose of studying transactive memory

systems (Austin, 2003). A true transactive memory system is developed over time through shared experiences. By examining the transactive memory system and performance relationship in a natural setting, I expect a stronger relationship than previous research.

As suggested by Lewis, Lange, and Gillis (2005), transactive memory systems provide benefits beyond the task for which they were initially developed. The knowledge developed for the initial task can be transferred and leveraged to related tasks. Further, as the group continues to utilize the transactive memory across multiple tasks, the system becomes better developed and relationships among members reinforced. Therefore, with each additional task, the transactive memory system becomes more effective which “can be leveraged to create sustainable advantages for organizations (Lewis, Lange, and Gillis, 2005 pg. 581).”

In sum, a well-developed transactive memory systems allows the top management team to quickly, efficiently, and effectively share and integrate expertise to exploit opportunities and mitigate threats. As the transactive memory system becomes more developed, it can be leveraged and redeployed to create sustainable advantages (Lewis, Lange, and Gillis, 2003). Transactive memory systems ensure a greater amount of specialized knowledge is present resulting in more thorough analysis and higher quality outcomes while decreasing inefficient cross-learning (Schmickl and Kieser, 2008).

Hypothesis 6: TMSs (Specialization, Credibility, and Coordination) are positively associated with organizational performance.

3.1.7 H7: EO is positively associated with sustainability initiatives

The relationship between entrepreneurial orientation and social and environmental performance has been ignored in the literature, and the entrepreneurship literature is largely devoid of discussions on sustainability (Hall, Daneke, and Lenox, 2010). However, there is compelling logic to establish the above relationship. First, there are monetary and non-monetary costs associated with socially responsible initiatives with uncertainty in benefits. Uncertainty in outcomes, while making a financial investment, represents a real risk to family businesses. Moreover, as suggested by Menon and Menon (1997), designing or redesigning an organization to act socially responsible requires significant and irreversible investment made under ambiguity and uncertainty. Family firms have limited ability to predict how consumers will respond to initiatives and therefore their return on investment. Consumers may even view sustainability initiatives as exploitative (Devinney, 2009). Thus, social and environmental initiatives are associated with an inherent degree of risk.

Organizations founded upon or that have espoused a proactive orientation actively seek opportunities. The opportunities identified include environmentally friendly products, services, processes, and policies. Green initiatives to exploit market opportunities serve to augment top line revenues, reduce costs, or merely reflect the ethos of decision makers. Regardless of the impetus behind the initiative, these actions represent proactiveness. Without a proactive market orientation, managers would not actively seek out green opportunities. Even when opportunities were identified unintentionally, an absence of proactiveness would result in inaction. Finally, innovativeness, as a dimension of the entrepreneurial orientation, represents a tendency to

create new products, processes, services, or revise and update existing lines through experimentation and research and development (Covin and Slevin, 1989). Innovativeness is critical to the development and deployment of processes, policies, services and products that preserve natural resources. Environmentally conservative off-the-shelf technologies may also be available to firms. However, adoption and integration of these technologies into the firm is also consistent with an innovative orientation as each part of the value-chain will be revised to optimize environmental performance. Therefore, I hypothesize:

Hypothesis 7: EO (risk propensity, innovativeness, and proactiveness) is positively associated with sustainability initiatives.

3.1.8 H8a, H8b, H8c, H8d Mediation Hypotheses

In totality, my aforementioned hypotheses form a mediated model. I expect for EO and TMT to mediate the relationship between TMT characteristics and organizational performance. Organizations seek to develop mechanisms by which they can leverage the talents of their employees. It is futile to have diverse and talented employees if they are not effectively utilized in the creation of organizational value. I argue that one such mechanism is the firm's entrepreneurial orientation. With an EO, firms harness the collective genius of their employees to introduce novelty, beat their competitors to the punch, and take bold actions with unknown outcomes. Otherwise, human capital may be wasted as it remains idle. An EO allows firm to leverage the talents of its top management team across multiple tasks and decisions to achieve superior performance. In other words, the relationship between human capital and performance is mediated through entrepreneurial orientation. Furthermore, organizations' performance benefits

when talented, diverse TMT members trust in others' competencies, develop unique and complimentary specializations, and are able to coordinate their actions (i.e. they develop TMS) as a result of higher levels of TMT human capital. Thus, I propose the following:

Hypothesis 8a: Entrepreneurial orientation mediates the relationship between TMT human capital and performance (financial and sustainability initiatives).

Hypothesis 8b: TMS mediates the relationship between TMT human capital and performance.

Hypothesis 8c: Entrepreneurial orientation mediates the relationship between TMT non-familiness and performance (financial and sustainability initiatives).

TMT non-familiness has an interesting relationship with organizational performance. On one hand, TMT non-familiness allows the firm to benefit from an EO, but on the other hand, the deterioration of TMS will detract from organizational performance.

Hypothesis 8d: TMS mediates the relationship between TMT non-familiness and performance.

Chapter 4

Research Methods

4.1 Overview

This research endeavored to utilize primary data to establish the hypothesized relationships between the constructs delineated in the previous section. The purpose of this section is to clarify the research methodology used in this study, including the sample frame, development of the survey instrument, and analysis techniques. The structure for this section is as follows. First, a description of and rationale for the sampling frame is included. Second, a discussion follows with regard to why primary data is appropriate for the sample and research questions. Third, I describe the measurement of the constructs in this study. Fourth, this section concludes with a description of the analysis techniques.

4.2 Sample Frame

To answer the research questions herein, included firms must be accessible family businesses. Thus, the sample frame includes family businesses participating in the retail automobile and motorcycle industries. By limiting the sample to these two industries, as opposed to a sample including all industries, I limit the background noise or exogenous factors affecting my results. Specifically, I reduce the threat to statistical conclusion validity (Cook and Campbell, 1975). The inclusion of heterogeneous industries would have resulted in increased error variance and decreased ability for statistical tests to identify significant relationships when that heterogeneity affects responses. Therefore, to reduce Type II errors, the sample frame includes firms from the automobile and motorcycle industries.

Additionally, the financial crises of 2008 critically affected these two industries and compelled firms to innovate. In these industries, credit for consumers ran short. This was particularly problematic given 90% of U.S. consumers' vehicle purchases utilize financing or leasing (The Economist, 2009). One consequence of the financial downturn was a drop in demand for the big three U.S. automobile manufactures of more than 20% in 2008. Exogenous shocks affecting these two industries forced firms to innovate to maintain profitability and perhaps even remain solvent. Additionally, there is a relatively large proportion of family firms in these two industries. Therefore, they are ideal candidates to answer the posited research questions.

A list of dealers from these two industries who competed withinin Texas was compiled from ReferenceUSA, a comprehensive list of businesses in the United States. At the time of this dissertation, 3,157 new car dealers were listed for Texas. Additionally, there were 1,150 new motorcycle dealerships in Texas. Of the total 4,307 firms, 497 were in the selected sample vicinity. These 497 firms were then screened to determine if they self-identify as a family firm. Those firms that did not identify as family firms (N=205) were removed from the list. I attempted to administer surveys to the remaining 212 firms.

4.2.1 Data Collection

I collected data via in-person surveys. Firms identified as competing in either new automobile sales or new motorcycle sales with a 100 mile radius of Arlington, TX (N=497) were screened by phone. Of those firms, 212 self- identified as family businesses. The final sample is comprised of 151 completed surveys for an effective response rate of 71 percent. Initially, I attempted to schedule an appointment by phone

with the owner of the firm. I contacted 10 firms with this procedure. On the first phone call to the 10 dealerships, I was able to speak directly to one owner of the firm. The owner agreed to meet in person and completed the survey. Three additional surveys were collected by meetings established through returned phone calls and follow up calls to the dealerships within this initial 10.

The study procedure was slightly adjusted after the initial 10 firms. I attempted to schedule appointments by phone with the owners of the remaining firms in the sample. However, accessing an owner of the firm by phone presented a great challenge. The administrative assistant, in many cases, indicated the owner was not available to speak and asked that I leave a message. The owner may or may not return the call. Therefore, in combination with the appointments scheduled by phone, I began to visit dealerships in-person along a pre-designated route. At this point, the sample was expanded to include any member of the top management team as a respondent, though a respondent with an ownership position in the firm was always targeted. Because organizational forms and titles varied within and across these two industries, firms identified members of the top management teams.

After introducing myself and my intention, I began each in-person visit by asking the point of contact to speak with the owner of the firm. Like by phone, the point of contact indicated the owner was often not available to speak or not on the premises. I would then ask to speak to a member of the top management team. This generally resulted in speaking to the sales manager. After introducing myself and my purpose for the visit, I would ask if he or she was a member of the top management team. Two sales managers included themselves as members of the top management team. In both those

cases, they were members of the controlling family. When the sales manager was not a member of the top management team, I asked that I be directed to the appropriate individual. When that individual was not available, I would leave my contact information and ask when the individual would be available. I entered the information on availability into a database and subsequent trips were planned around top management member availability. 57% of the surveys were administered on the first visit, 22% on the second visit, 17% on the third visit, and 4% on the fourth visit.

4.3 Construct Measurement

This section describes how the constructs in this study were measured.

4.3.1 TMT Human Capital

Although widely used in the various business literatures, human capital remains an elusive construct with no widely-accepted operationalization. As noted by Rauch, Frese, and Utsch (2005), single respondents within an organization are often unable to provide specific facts about human capital (education, experience, skills, and knowledge) for each of the employees in the organization. Therefore, Frese and Utsch's (2005) psychological scale with three items was adapted for this research and respondents.

However, to get at potentially different types of human capital, I included measures of both family and non-family TMT human capital. For example, respondents were posed questions such as, "Family members of the top management team are qualified to do their job." Respondents evaluated the items on a 7-point Likert scale (1=Strongly Disagree, 7=Strongly Agree). These questions were repeated for both family and non-family members. The specific items are included in Appendix A. The items for

both family human capital and non-family human capital had the highest reliability of all constructs included in the model, family human capital ($\alpha=.95$) and non-family human capital ($\alpha=.93$).

4.3.2 TMT Non-familiness

To assess the non-familiness of the TMT, I used two non-familiness ratios calculated as follows: $(NF-F) / TMT \text{ total}$ and $(NF/TMT \text{ Total})$ where F equals the number of family members on the TMT and NF equals the number of non-family members on the TMT.

4.3.3 Transactive memory system

The scale used to assess the top management team's TMS was adapted from Lewis' (2003). At a group level, the scale is conceptually valid and has been demonstrated to be statistically valid (Lewis, Lange, and Gillis, 2005; Kozlowski and Ilgen, 2006; Zhang, Hempel, and Han, 2007; Kanawattanachai and Yoo, 2008). Each of the three dimensions, specialization, credibility, and coordination, is comprised of five indicators and were measured on a 7-point Likert scale (1=Strongly Disagree, 7=Strongly Agree). Individual items are contained in Appendix A. The five-item scale for specialization had a coefficient alpha of .87 with a mean of 5.60, a coefficient alpha of .88 with a mean of 5.57 for credibility, and a coefficient alpha for .85 and mean of 5.51 for coordination. These established scales demonstrated similar reliabilities and means of established research (Lewis, 2005).

4.3.4 Entrepreneurial Orientation

I derived salient dimensions of EO from a review of the entrepreneurship literature. Miller (1983) took a prominent role in the reviewed articles with the three

dimensions (risk taking, proactiveness, and innovativeness) posited by him consistently used across studies. The additional two dimensions of EO (autonomy and competitive aggressiveness) conceived by Lumpkin and Dess (1996) were used in roughly one-third of the studies. As asserted by Rauch, Wiklund, Lumpkin, and Frese (2009), additional research is warranted to establish the psychometric properties of autonomy and competitive aggressiveness which is not a research objective of this dissertation. Therefore, the original three dimensions of EO, all of which contain three items) developed by Miller (1983), for which Covin and Slevin (1989) developed a scale, were considered in the analysis. The items were measured on a 7-point semantic differential scale. (e.g., Generally our company prefers to . . .

Strongly emphasize the marketing of the company's present products. 1 2 3 4 5 6 7
Strongly emphasize R&D). The remainder of the individual items is presented in Appendix A. Innovativeness had a moderately high coefficient alpha of .84 and a mean of 5.17, proactiveness had a coefficient alpha of .86 and a mean of 5.28, while risk taking had an alpha of .86 and mean of 4.63.

4.3.5 Performance

Extant research has established the multidimensionality of performance, particularly in SMEs (Lumpkin and Dess, 1996; Wiklund and Shepherd, 2005). Objectives measures are well-equipped to assess financial performance and are not susceptible to common method bias. However, objective data are difficult to obtain and interpret in SMEs. Subjective measures allow evaluation of non-financial performance, can be obtained by survey, and have demonstrated strong reliability and validity (Stam and Elfring, 2008). Unfortunately, subjective measures of performance can be biased due

to social desirability and common methods. With that in mind, my research utilizes both subjective and objective measures of performance. Subjective measures were used to assess net income after taxes, meeting financial objectives, and overall firm performance relative to competitors. Objective data, via ReferenceUSA, were collected on annual revenue and these data were compared to subjective data on the same constructs and showed a significantly high correlation .67. The three subjective indicators were utilized in the final model and had a coefficient alpha of .93 and mean of 4.80.

4.3.6 Sustainability

Recent research has implored future work on organizational sustainability to consider both the environmental and social sub-dimensions of sustainability (Christmann and Taylor, 2006; Lockwood, 2006; and Chabowski, Mena, and Padron, 2010). Therefore, my analysis included four indicators to evaluate firms' environmental responsibility and four indicators to evaluate social responsibility. The sustainability scale is an adaptation of Maignan and Ferrel's (2000) work on corporate citizenship which was updated and revised by Turker (2009). Adaptation of Turker's (2009) was necessary to remove factors that evaluated legal compliance. My definition of sustainability involves initiatives that are beyond the prescripts of the law. Therefore, I omitted one item that assessed compliance with legal imperatives (e.g., paying taxes) since basic compliance is required to remain in business. I present the remainder of the items in Appendix A. The scale had a mean of 5.25 and alpha coefficient of .87.

4.3.7 Control Variables

Four control variables were included in the model: firm age, generation of business, family control, and family influence. Firm age influences both organizational

performance (Anderson and Reeb, 2003) and the pursuit of sustainability initiatives Wagner (2010). As multiple generations participate in family businesses, more family members are reliant on the business for their financial welfare, and the divergent goals to distract the firm from achieving financial objectives (Westhead and Howorth, 2006). Both family control and influence organizational performance. Family members in business are believed to engage in business regarding acts as opposed to self-regarding acts (Sharma 2004). Wealth creation in the business is aligned with personal businesses. As the control and influence of the family business is aligned with manager rationality, there is a lesser need for formal governance mechanisms and monitoring.

4.3.8 Analysis

Although all the scales utilized in this research are established scales, I began the analysis by assessing the constructs' reliability, all of which were sufficiently high (range=.84 to .95). A table containing all the coefficients alphas in included in Appendix A. With the reliability of the constructs established, I used structural equation modeling to evaluate the hypothesized relationships. However, before I tested my hypotheses, I used CFA to determine the appropriateness of my measurement model and dimensionality of my constructs. I then proceeded to assess the full structural model and hypotheses. To test for mediation, I adopted the procedure advanced by Preacher and Hayes (2004; 2008); indirect effects were included in the structural model. The results are presented in the following chapter.

Chapter 5

Results

5.1 Descriptive Statistics

The survey procedure yielded 151 usable surveys. The sample is comprised of 27.81 (42 firms) per cent new motorcycle dealerships while the remaining 72.19 per cent are new automobile dealerships (109 firms), roughly representative of the rate at which the two firms exist. The average firm in the sample was founded in 1975. The respondents had the following characteristics: 59.23 per cent reported holding an equity position in the firm and the other respondents reported a position on the top management team. All the respondents held a sufficiently high enough position in the organization to adequately respond to the questions about their firms and other top management team members. Respondents were overwhelmingly male 96%. Respondents in the study were moderately educated with 2.2 years of post-high school education on average, had an average age 48 years, had 14 years of industry experience, and average tenure with the current employer was 8 years. Seventy-nine percent (79%) of respondents were members of the controlling family. Table 5.1 below provides the means, standard deviations and Pearson's product-moment correlations.

Table 5.1: Latent Construct Correlations, Means, and Standard Deviations

| | Mean | S.D. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|------------------|------|-------|--------|---------|--------|--------|---------|-------|-------|-------|------|--------|----|
| 1. EO | 5.06 | 1.21 | 1 | | | | | | | | | | |
| 2. TMS | 5.39 | 1.21 | 0.24* | 1 | | | | | | | | | |
| 3. Perform | 4.80 | 1.57 | 0.46** | 0.22* | 1 | | | | | | | | |
| 4. Sustain | 5.15 | 1.38 | 0.63** | 0.24* | 0.40** | 1 | | | | | | | |
| 5. Non-fam Ratio | 0.29 | 0.02 | 0.03 | -0.29** | 0.12 | -.07 | 1 | | | | | | |
| 6. Family HC | 6.03 | 1.11 | 0.37** | 0.56** | 0.29** | 0.37** | 0.05 | 1 | | | | | |
| 7. Non-fam HC | 5.44 | 1.27 | 0.31** | 0.35** | 0.22* | 0.27* | 0.10 | 0.32 | 1 | | | | |
| 8. Age | 1975 | 20.02 | -0.04 | -0.04 | -0.04 | -0.11 | -0.08 | -0.12 | -0.02 | 1 | | | |
| 9. Generation | 1.53 | .66 | 0.05 | 0.09 | 0.10 | 0.21 | -0.06 | 0.13 | 0.05 | -0.65 | 1 | | |
| 10. Control | 6.47 | .92 | 0.09 | 0.22 | 0.10 | 0.23* | -0.32** | 0.24* | 0.07 | -0.08 | 0.09 | 1 | |
| 11. Influence | 6.54 | .77 | 0.09 | 0.23* | 0.07 | 0.14 | -0.31** | 0.28* | 0.05 | -0.09 | 0.09 | 0.72** | 1 |

Entrepreneurial orientation (EO), Transactive memory system (TMS), Performance (Perform), Sustainability (Sustain), Non-familiness (Non-fam Ratio), Family human capital (Family HC), Non-family human capital (Non-fam HC), Firm age (Age)

P<.05=*

P<.01=**

5.2 Construct Dimensionality

Before I could proceed with the assessment of my measurement and structural models, I first had to establish the dimensionality of the constructs. To determine whether the dimensional or the construct level model was appropriate, I completed confirmatory factor analysis (CFA) and chi-squared difference tests on the multidimensional constructs. I ran models where EO had three correlated factors, TMS had three correlated factors, and sustainability had two correlated factors. I then ran the above models as a one factor model where the factor intercorrelations were constrained to one in each model. Next, I ran those same models and the factor intercorrelations were constrained to zero. The results are presented in Table 6. The CFA with estimated correlations between the dimensions of EO, TMS, and sustainability represent the data best according to both the fit indices and chi-squared difference tests. The change in chi-squared was significant, at an alpha of .1, across all models compared to the original confirmatory factor analysis with estimated correlations across constructs. This is confirmation of the hypothesized construct level model, and thus, I utilized the aggregated hypothesized model in my analyses. EO and TMS were single factors with three item composites while sustainability was a single factor with two item composites.

Table 5.2 Construct Dimensionality

| EO CFA | | | |
|-----------|--------------------------|-----------------------|------------------------|
| | Model 1 | Model 2 | Model3 |
| | Correlation Estimated | Correlated Fixed 1 | Correlation Fixed 0 |
| CFI | 0.98 | 0.98 | 0.85 |
| NNFI | 0.98 | 0.96 | 0.8 |
| RMSE A | 0.1 | 0.1 | 0.23 |

Table 5.2 continued

| | | | |
|--------------------|--------------------------|-----------------------|------------------------|
| SRMR | 0.049 | 0.11 | 0.4 |
| CHI2 | 60.62 | 96.31 | 274.95 |
| df | 24 | 27 | 27 |
| | Diff 1&2 =35.39; 3df | Diff 1&3=214.33 ;3df | |
| | p=.00 | p=.00 | |
| TMS CFA | | | |
| | Model 1 | Model 2 | Model3 |
| | Correlation Estimated | Correlated Fixed 1 | Correlation Fixed 0 |
| CFI | 0.96 | 0.95 | 0.88 |
| NNFI | 0.95 | 0.95 | 0.87 |
| RMSEA | 0.09 | 0.1 | 0.17 |
| SRMR | 0.062 | 0.064 | 0.41 |
| CHI2 | 284.5 | 309.82 | 652.77 |
| df | 90 | 93 | 93 |
| | Diff 1&2 =25.32; 3df | Diff 1&3 =342.95; 3df | |
| | p=00 | p=.00 | |
| Sustainability CFA | | | |
| | Model 1 | Model 2 | Model3 |
| | Correlation Estimated | Correlated Fixed 1 | Correlation Fixed 0 |
| CFI | 0.97 | 0.96 | 0.82 |
| NNFI | 0.96 | 0.95 | 0.73 |
| RMSEA | 0.19 | 0.19 | 0.29 |
| SRMR | 0.039 | 0.2 | 0.5 |
| CHI2 | 71.35 | 74.59 | 333.56 |
| df | 13 | 14 | 14 |
| | Diff 1&2=3.24; 1df | Diff 1&3 =262.21; 1df | |
| | p=.07 | p=.00 | |

5.3 Modeling

I began my analysis with assessment of the measurement model. The confirmatory measurement model allowed the indicators to load on their respective latent constructs

while latent constructs were allowed to correlate freely. On single item indicators, the error term was fixed to zero and the factor loading to one. Multiple item latent constructs had one item's factor loading fixed to one. All the free factor loadings were significant at alpha at .01; the multiple item standardized loadings ranged from .70 to .94. The construct validity of the underlying 11 latent constructs (TMT HC, TMT non-familiness, EO, TMS, sustainability, performance, firm age, generation of business, family control, and family influence) is, therefore, acceptable. To evaluate model fit, I used multiple fit indices: Root Mean Square Error of Approximation (RMSEA), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and SRMR. After review of extant literature, I established thresholds to assess the appropriateness of the model: χ^2 p>.05 indicates excellent fit, CFI >.95 indicates good fit (Hu and Bentler, 1998; Hu and Bentler , 1999) while a value above .90 represents acceptable fit (Lance and Vandenberg, 2002), RMSEA \leq .08 indicates reasonable fit (Brown and Cudeck, 1993). The results are indicative of good or adequate fit: Root Mean Square Error of Approximation (RMSEA) = 0.046, Non-Normed Fit Index (NNFI) = 0.95, Comparative Fit Index (CFI) = 0.98, SRMR=.042, and $\chi^2=234.49$ with 159 degrees of freedom (p<.01).

Next, I assessed the full structural equation model. In the structural model, six single item indicators were included, Non-family Ratio, Generation of Business, Age of Business, family influence on important strategic decisions, family or non-family respondent, and the degree to which the firm is controlled by the founding family . For those indicators, I fixed the measurement error to zero and the factor loading to one. I pursued established convention by allowing the latent exogenous constructs to correlate (Family Human Capital, Non-family Human Capital, and TMT Diversity) while the

latent endogenous constructs (EO, TMS, Sustainability, and Performance) were not allowed to correlate. In addition to the hypothesized relationship, direct paths were included from the latent exogenous constructs (family human capital, non-family human capital, and TMT non-familiness) to performance and sustainability initiatives. Combined with the good fit of measurement model, the fit indices, based on the above established thresholds, of the structural model suggest a high degree or acceptable level of model fit: RMSEA = 0.057, NNFI = 0.93, CFI = 0.97, SRMR=.069, and $\chi^2=314.07$ ($p<0.00, 192$ DF). With acceptable or good fit established in both the measurement and structural models, I proceeded to test the aforementioned hypotheses.

5.4 Hypotheses Tests and Results

5.4.1 Human Capital to EO

I then considered the relationship between human capital and the organization's entrepreneurial orientation. Human capital is positively related to EO. As expected, both family ($\beta = .27, p < .01$) and non-family human capital ($\beta = .19, p < .05$) are positively related to the firm's EO. Hypothesis 2 was supported; both family and non-family human capital are positively and significantly related to firms' entrepreneurial orientation.

5.4.2 Human Capital to TMS

The first part of the model examined the direct relationship between human capital and the top management team transactive memory system. Family human capital was significantly and positively related to the top management team's transactive memory system ($\beta = .47, p < .01$). Similarly, non-family human capital significantly and positively related to the top management team's transactive memory system ($\beta = .23, p <$

.01). In other words, as the top management team increased in aggregate levels of family and non-family human capital, I observed higher levels of transactive memory systems in the top management teams. Therefore, Hypotheses 1 is supported. Standardized coefficients for these and all other posited relationships and their respective standard errors are presented below in Table 5.3.

5.4.3 TMT Non-familiness to TMS

I proceeded to consider the direct relationship between TMT non-familiness and the team's transactive memory system. As shown in Table 5.3 as the proportion of non-family members on the top management team increases, the transactitve memory decreases ($\beta = -.30, p < .01$). Therefore, Hypothesis 3 was supported. TMT non-familiness impedes the development of a TMT TMS.

5.4.4 TMT Non-familiness to EO

I hypothesized a positive relationship between TMT non-familiness and EO. However, I failed to support this relationship ($\beta = .02, p > .10$). Hypothesis 3 is not supported.

5.4.5 TMS to Organizational Performance

I posited a positive relationship between the TMT's TMS and organization performance. Contrary to the proposed relationship, TMS is not related or performance in any meaningful way in my sample ($\beta = -.04, p > .10$). Hypothesis 5 was not supported.

5.4.6 EO to Organizational Performance

Entrepreneurial orientation was hypothesized to positively influence organizational performance. I confirmed a positive relationship between EO and performance ($\beta = .32, p < .01$). Hypothesis 6 was supported.

5.4.7 EO to sustainability initiatives

I proposed a positive relationship between the firm's entrepreneurial orientation and sustainability initiatives. Indeed, the firm's entrepreneurial orientation is positively associated with sustainability initiatives ($\beta = .44$, $p < .01$). Hypothesis 7 was supported.

Figure 5.1 Hypothesized Model and Results
 $(***=p<.01, **=p<.05, *=p<.1; Standardized Coefficients)$

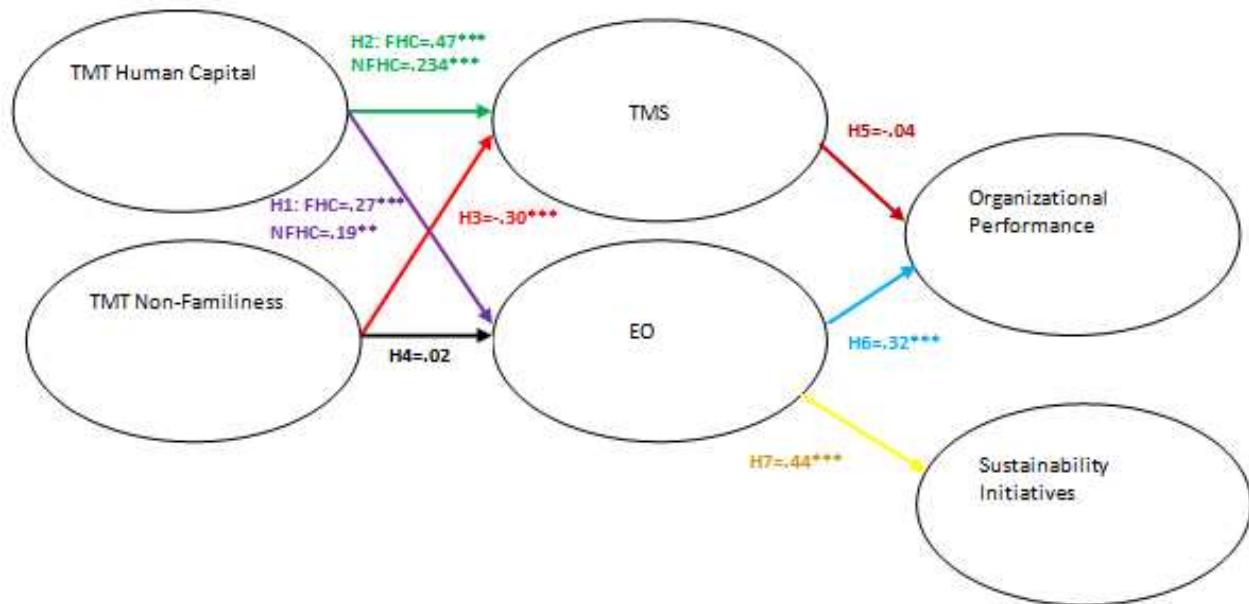


Table 5.3: Hypothesized Relationships, Standardized Betas, and Standard Errors

| | Standardized Beta | Standard Error |
|-----------------------------------|-------------------|----------------|
| H1: Family human capital → EO | .27*** | .09 |
| H2: Family human capital → TMS | .47*** | .07 |
| H1: Non-family human capital → EO | .19** | .07 |

Table 5.3 continued

| | | |
|----------------------------------|---------|-----|
| H2: Non-family human capital→TMS | .23*** | .06 |
| H3: TMT non-familiness→TMS | -.30*** | .10 |
| H4: TMT non-familiness→EO | .02 | .13 |
| H5: TMS→Performance | -.04 | .15 |
| H6: EO→Performance | .32*** | .13 |
| H7: EO→Sustainability | .44*** | .09 |
| Controls | | |
| Firm age→Performance | .07 | .01 |
| Firm age→Sustainability | .01 | .00 |
| Generation→Performance | .07 | .22 |
| Generation→Sustainability | .13 | .15 |
| Fam control→Performance | .13 | .18 |
| Fam control →Sustainability | .26*** | .11 |
| Fam influence→Performance | -.09 | .21 |
| Fam influence →Sustainability | -.22** | .14 |
| ***=p<.01, **=p<.05, *=p<.1 | | |

5.4.8 Mediation

To test for mediation, I included the direct effects in the full structural model and calculated confidence intervals to determine whether or not mediation was present for the relationship between TMT non-familiness and TMT TMS with performance and

sustainability Based on Preacher and Hayes (2004, 2008) test of mediation, EO mediated the relationship between family human capital and non-family human with organizational performance and sustainability ($p < .05$). No other mediation relationship was significant.

Table 5.4 presents the results of all proposed mediated relationships and Table 5.5 provides the confidence intervals for those indirect effects.

| Table 5.4: Indirect Effects | | |
|---------------------------------------------------------|----------------------|-----------------|
| Relationship between exogenous and endogenous variables | Unstandardized Betas | Standard Errors |
| Family human capital → Performance | .42*** | .15 |
| Family human capital → Sustainability | .30*** | .09 |
| Non-family human capital → Performance | .14 | .10 |
| Non-family human capital → Sustainability | .16** | .07 |
| TMT non-familiness → Performance | .30 | .19 |
| TMT non-familiness → Sustainability | -.21 | .18 |

| Table 5.5 Mediation Tests | | |
|--------------------------------|------|-----|
| Mediated Relations at 95% CI | LL | UL |
| H8a FHC → EO → Perform** | .04 | .51 |
| H8a NFHC → EO → Perform** | .01 | .17 |
| H8a FHC → EO → Sustain** | .04 | .39 |
| H8a NFHC → EO → Sustain** | .10 | .26 |
| H8b TMT Non-Fam → EO → Perform | -.12 | .49 |

| Table 5.5 continued | | |
|---------------------------------|------|-----|
| H8b TMT Non-Fam → EO → Sustain | -.30 | .13 |
| H8c FHC → TMS → Perform | -.19 | .51 |
| H8c NFHC → TMS → Perform | -.08 | .24 |
| H8d TMT Non-Fam → TMS → Perform | -.06 | .36 |
| **=p<.05 | | |

5.4.9 Practical Significance

To determine the practical significance of my model, I estimated the squared multiple correlations for the endogenous constructs included in the structural model. The structural equation model included four endogenous constructs. For those four constructs, the squared multiple correlations ranged from .18 to .38. A primary objective of this dissertation was to determine the effects of human capital, TMT diversity, entrepreneurial orientation, and transactive memory systems on organization performance. Twenty-four per cent of the variation in performance was explained by the aforementioned variables, which is an impressive feat. The remaining squared multiple correlations are presented below in Table 5.6.

Table 5.6: Squared Multiple Correlations of Endogenous Variables

| | Squared Multiple Correlations |
|-----|-------------------------------|
| TMS | .29 |
| EO | .18 |

Table 5.6 continued

| | |
|----------------|-----|
| Performance | .24 |
| Sustainability | .38 |

5.4.10 Model Comparison

Finally, I compared the structural relationships in the aggregated model that utilized primary subjective measures of performance with an aggregated structural model that contained objective performance data collected from ReferenceUSA. While the strength of the relationship varied, were in the same direction and of the same significance across the two models with the exclusion of effects for EO. I failed to confirm a significant relationship between entrepreneurial orientation and performance. The implications of this null finding are expounded upon in the limitation section.

Chapter 6

Discussion, Research Contributions, Managerial Implications, Study Limitations, and

Directions for Future Research

6.1 Discussion

In an increasingly knowledge-based economy, firms are concerned with the acquisition and development of human capital. Indeed, management theory, including the resource-based view of the firm, contends that human capital is a critical factor in explaining why some firms outperform other firms (Acedo, Barroso, & Galan, 2006; Barney, 1991; Barney, Wright, & Ketchen, 2001; Coff, 1999). This dissertation was no exception. Human capital was an important determinant of organizational performance. However, importantly, the previous mentioned studies provide a somewhat incomplete picture of the relationship between human capital and performance. As argued by Wright, Dunford, and Snell (2001), human capital can only be a source of performance advantages when it supports value-creating competencies. Case in point, firms must leverage the talents of their employees. One such mechanism by which firms leverage the human capital of their employees is an entrepreneurial orientation. Human capital influences organizational performance, including financial, social, and environmental performance, through the additional innovativeness, risk taking, and proactiveness it provides to the organization.

Increased cognitive abilities that emanate from human capital allow top managers to engage in more efficient and productive activity (Schultz, 1959; Becker, 1964; Mincer,

1974). When an entrepreneurial opportunity is present, human capital allows early recognition and the skills necessary to exploit the opportunity. Individuals who possess who capital are more adept at recognizing opportunities and taking action to exploit the opportunity (Shane and Venkataraman, 2000; Bates, 1995; Robinson and Sexton, 1994). In Hayton's (2003) research, human capital and human capital management resulted in more entrepreneurial actions in small and medium-sized enterprises. Shane and Venkatraman (2000) demonstrated that human capital provides the capacity for business owners to act entrepreneurially through discovering and exploiting opportunities. Empirical work by Bantel and Jackson (1989) demonstrated the importance of human capital and entrepreneurship when they confirmed a positive relationship between talented management and organizational innovation. In Taiwan, human capital positively influenced innovativeness (Anker, 2006). Human capital increases entrepreneurial research which results in patents (Allen, Link, and Rosebaum, 2007). Similarly, this dissertation confirmed a positive relationship between human capital, both family and non-family, and a firm's entrepreneurial orientation. Family and non-family human capital increases the degree to which firms act proactively, take risks, and act innovatively.

While the relationship between human capital and EO is well-established, entrepreneurial orientation has been understudied in the family business context (Zahra, 2005). The traditional view of the family business is that of "nurturer/protector" (Miller and Le Breton-Miller, 2011). This view contends that the family seeks to protect the welfare of the family whose financial health is dependent on the family firm. Consequently, decision-makers in the family take act less entrepreneurially. However, in

family firms, my dissertation provides evidence that human capital is an important antecedent of an entrepreneurial orientation.

Human capital has been associated with a multitude of group level outcomes. In a sample of 65 teams working on an interdependent command and control simulator, human capital increased team work competencies and great proficiency in planning, task coordination, collaborative problem solving and communication (Ellis, Bell, Ployhart, Hollenbeck, and Illgen, 2005). McClough and Rogelberg (2003) found that human capital resulted in greater individual team member behavior in 57 student teams. Based on my review of the literature, extant research has failed to establish human capital as an antecedent of a group's transactive memory system to the exclusion of Faraj and Sproull (2000). They established a relationship between human capital and the TMS dimension specialization. Human capital contributes to the development of the meta-knowledge that includes "who knows what" which allows individuals to identify areas in which they can specialize and contribute. In my sample of family firms, human capital predicts the TMT's transactive memory system. Top managers have the desire and ability to work together (Hollingshead and Fraidin, 2003). Human capital allowed members to understand how knowledge is distributed throughout the group, which helped individuals identify deficiencies in the TMS or areas in which they could develop a specialization and make a contribution. Further, TMT members who possessed human capital had the requisite knowledge, skills, and abilities to develop a specialization. Confidence in other members' contributions (i.e., information, decisions, and specialization) to the TMS was enhanced when members possess high levels of human capital. Human capital allowed the group to rely on a single individual for contributions pertaining to his or her

specialization. Trust resulted in team members developing unique specializations from their human capital.

The literature nearly universally posits positive effects emanating from the presence of non-family managers in the process of professionalization (Chrisman, Chua, Kellermans, and Chang, 2007; Chua, Chrisman, and Sharma, 2003; Minichilli, Corbetta, and MacMillan). I argued and supported that this relationship may be more nuanced than previously described. Non-family managers bring both job-related diversity and psychographic diversity into the family-firms TMT. Diversity in the top management team can reduce communication (Zenger and Lawrence, 1989), increase turnover (Wagner, Pfeffer, and O'Reilly, 1984), and create disharmony (O'Reilly, Snyder, and Boothe, 1993). Indeed, as the proportion of non-family managers increased on the top management team, the TMS was negatively impacted. The top managers did not develop specialization, did not find one another as credible, and could not coordinate their actions as well. Thus, when hiring non-family managers, family firms should be cognizant of the potential detriments of non-family members participating in the family business.

Contrary to my expectations, TMT non-familiness was not meaningfully related to the firm's entrepreneurial orientation. This suggests that the mere participation of non-family members in the top management team does not create benefits. The benefits of non-family members are derived from the human capital they possess. Thus, the importance of non-family TMT members was captured in my relationship between non-family human capital and EO.

With increasing organization resources devoted to entrepreneurship and innovation, when a firm possesses an entrepreneurial orientation, the logical assumption

is that those activities result in organizational performance. However, a proportion of extant research failed to establish a significant relationship between EO and performance (Covin, Slevin, and Schultz, 1994; George, Wood, and Khan, 2001). Other studies only confirmed a weak, positive relationship between EO and performance (Dimitratos, Lioukas, and Carter, 2004; Lumpkin and Dess, 2001; Zahra, 1991). The majority of empirical work on EO provided evidence of a positive and significant relationship between EO and performance (Covin and Slevin, 1986; Hult, Snow, and Kandemir, 2003; Lee, Lee, and Pennings, 2001; Wiklund and Shepherd, 2003). This research hypothesized and confirmed a positive relationship between EO and performance. As suggested by Rauch, Wiklund, Lumpkin, and Frese (2009) in their meta-analysis, industry may moderate the relationship. Based on the results of their meta-analysis, industries with rapid change and changing customer preferences result in a more pronounced relationship between EO and performance. This partly explains the strong relationship between EO and performance I observed in my dissertation. The new automobile and motorcycle industries experienced significant turbulence as a result of the economic downtown.

Sustainability is a growing concern for organizations as consumers report a desire to conduct business with firms who are environmentally and socially responsible (Cordano and Frieze, 2000; Schmidheiny, 1992). Though there is an increasing body of knowledge on the motivation and outcomes of sustainability, little is known about the antecedents of sustainability initiatives (Bansal and Roth, 2000; Egri & Herman, 2000). Extant literature contends that the integration of social and environmental initiatives requires attentiveness to external opportunities (Cairncross, 1992; Judge and Douglas, 1998; Sharma, 2000). Based on my research, no empirical work has considered the

relationship between EO and sustainability initiatives. Craig and Dibrell (2006) supported a positive relationship between a concern for the natural environment and innovation. Indeed, I find a positive relationship between EO and sustainability initiatives. An entrepreneurial orientation provides the capability to seize those opportunities driven by changes in regulations and social values.

While there is evidence to suggest transactive memory systems enhance group level performance (Hollingshead, 1998; Liang, Moreland and Argote, 1995; Moreland, Argote, and Krishnan, 1998; Lewis, 2003, 2005), top management team transactive memory systems do not significantly relate to performance in family businesses. I sought to extend the effects of a group level construct, TMS, to an organizational level outcome, performance, yet failed to establish this relationship. With that in mind, I examined the relationship between the individual dimensions of TMS and organization performance. Interestingly, specialization in the top management team detracted from organizational performance. As the members of the top management team became more specialized in their knowledge and skills, performance suffered. Based on extant literature, specialized knowledge and skills allow groups more expertise to bear on decisions and requisite tasks, thereby bolstering organizational performance (Hollingshead, 1998; Liang, Moreland and Argote, 1995; Moreland, Argote, and Krishnan, 1998; Lewis, 2003, 2005). This anomalous finding was resultant of the group becoming more insular and untempered decision making. First, as the top management team became more specialized, they became less reliant on environmental cues. The group drew upon the expertise of external entities and information from those entities to a lesser extent. Secondly, top manager specialization, by default, resulted in specialists. These specialists

possessed a unique body of knowledge. There were not other individuals to question their decision-making. Consequently, individuals had untempered decision making authority and misguided strategies. The top management team's ability to coordinate their actions and find one another credible resulted in higher levels of organizational performance. Family firms should be aware of the consequences of specialization in top management teams.

6.2 Research Contributions

This multifaceted research was fundamentally driven by the desire to glean additional understanding of how family businesses leverage their resources to outperform competitors. Unfortunately, the family business literature is largely devoid of transactive memory system as a construct. Family businesses provide a fertile ground to examine the construct due to the intersection of workplace relationships and family relationships. Due to the dual relationships, I surmised more developed transactive memory systems in family businesses at the top management team ranks. Previous research established the construct to improve group performance (Lewis, 2003; 2005). This is the first research, based on my review of the literature, to link TMS to an organizational level outcome, performance. While my hypotheses, with respect to this construct, were not patently supported, valuable insights can be drawn from the results. Both the nature and the strength of the construct's dimensions vary as they relate to organizational performance. Specialization is negatively related to performance while credibility and coordination are positively and significantly related to performance. The ability of the top management

team to work coherently together towards organizational goals is an important determinant of performance.

Further, established research paints a rosy picture of non-family members inclusion in top management ranks. While I do not disagree with the notion that non-family members contribute to organizational performance, I argue that the relationship is more nuanced. Non-family managers impede TMT's ability to function cohesively. As higher levels of TMT non-familiness, TMT members tend to be generalists as opposed to specialists, trust is reduced in the group, and coordination of actions is reduced.

The benefits of human capital to an organization are well-developed (Hitt, Bierman, Shimizu, and Kochhar, 2001; Baum and Silverman, 2004; Cooper, Gimeno-Gascon, and Woo, 1994). I contribute to the literature by adding to the understanding of how human capital relates to organizational performance (financial, social, and environmental). My analyses suggested that human capital is indirectly related to organizational performance. The relationship was mediated by the firm's entrepreneurial orientation. Entrepreneurial orientation is mechanisms by which the knowledge, skills, and abilities of employees are leveraged to achieve organizational performance. Moreover, human capital is an important antecedent of an entrepreneurial orientation. However, within family businesses, it is important to consider the effects of family and non-family human capital individually. The strength of the relationship changes across the forms of human capital. This extends the human capital by differentiating between sources of human capital. Not only is the level of human capital important to organizations (Hitt, Biermant, Shimizu and Kochar, 2004), but the outcomes associated with human capital are influenced by the source. For family businesses and EO, the contributions and talents of TMT family

members are critically important to achieving entrepreneurial action and the subsequent performance benefits. Contrary to the belief that non-family members are necessary for entrepreneurial action and legitimization of family businesses (Hall and Nordqvist, 2008), family human capital is a stronger predictor of EO and firm performance.

My final contribution is the establishment of a relationship between an entrepreneurial orientation and sustainability initiatives. While strong theoretical arguments exist to support a relationship, the literature fails to posit the relationship. My research supported a positive, significant relationship between EO and sustainability initiatives.

6.3 Implications for Managerial Practice

My findings indicate that family businesses should seek out top managers for their organizations with high levels of human capital (both family and non-family) to increase organizational performance. However, when employing non-family managers, firms should be aware of the negative consequences. The non-family managers have the potential to disrupt the TMS of the top management team. Organizational mechanisms should be in place to integrate the non-family members into the team and develop trust amongst all members of the team to maximize performance. One caveat of that cohesion relates to member specialization. Top management team specialization can reduce organizational performance (Tao and Zhang, 2012). If members do specialize, an intentional effort to draw on external expertise and information remains critically important to diminish the deleterious effect; some overlapping knowledge may mitigate these negative effects. To remain competitively relevant, now and in the future, firms should adopt an entrepreneurial orientation (Hamel, 2000). Finally, family firms that wish

to promote the welfare of society and go green should adopt an entrepreneurial orientation.

6.4 Study Limitations and Future Research Directions

Limitations are inherent in research and this dissertation is no exception. To start, I collected the independent variables and dependent variables from the same respondent at the same point in time. This process may have introduced undesired common method bias. To combat common method bias, I utilized procedural and statistical remedies. To reduce measurement context effects, a single researcher administered the paper-and-pencil questionnaires. The respondents were allowed to navigate through the survey at their will which precluded the opportunity for a researcher to inadvertently disclose a desired response. I ensured the confidentiality of the respondent to limit the effects of social desirability bias wherein respondents provide responses they deem socially pleasing. The proposed relationships were not disclosed, and the questions were kept as simple and straightforward as possible. Statistically, the Harmon single-factor test and multiple factor analyses indicated common method was not an issue with my data.

Second, the sample was restricted to family businesses competing in the automobile industry which limits the extensibility or generalizability of my findings. However, my sample was driven by the nature of my underlying research question. With that in mind, future research should seek to establish the import of transactive memory systems at the top management on organizational performance in non-family firms and across industries. In addition, researchers should identify other types of diversity that detract from top management teams developing such a memory system. In this research, I only considered the diversity imposed by different family backgrounds.

Third, my cross-sectional data fail to capture the dynamic nature of the relationship between entrepreneurial orientation and organizational performance. As firms become more successful, they may seek out new opportunities, take more action, and accept higher levels of risk to secure future sources of success. Future studies could make a valuable contribution by adopting a longitudinal design. Finally, I failed to confirm a significant relationship between entrepreneurial orientation and objective performance. This suggests that respondents' perception of performance may not be representative of actual performance. However, the only objective performance measure to which I had access was total sales. Total sales do not fully capture performance. Future research should seek to include both subjective and objective performance measures.

6.5 Conclusions

Entrepreneurship is critical to family firm growth, profitability, and survival (Zahra 2005); however, entrepreneurship remains understudied in the family business context (Zahra and Sharma, 2004). Limited extant research suggests family firms act less entrepreneurially than their non-family counterparts but performance enhancements result from entrepreneurially actions (Litz and Klesen, 2001). In this dissertation, I explore the effects of human capital and top management team diversity on the group's transactive memory system (Wegner, 1987) and the organization's entrepreneurial orientation. Specifically, I proposed that TMT non-familiness detracts from the development and utilization of a transactive memory system while enhancing the entrepreneurial orientation of the firm while human capital is positively related to both the entrepreneurial orientation and transactive memory system.

Additionally, family firms have been described by stagnancy (Daily & Dollinger, 1992), limited growth prospects (Gumpert& Boyd, 1984), and nepotism (Vinton, 1998). However, I argue the organization's transactive memory system and entrepreneurial orientation serve as mechanisms to leverage the talents of employees and bolster organizational performance. I also explore the relationship between entrepreneurial orientation and business sustainability which has largely been ignored (Hall, Daneke, and Lenox, 2010).

Appendix A

Scales and Survey Instrument

I. Questions About Your Firm

1. How many family members participate in the top management team? _____
2. How many non-family members participate in the top management team? _____
3. In what year was your firm founded? _____

II. Consider your company's perspective when answering the next 10 questions

1. Strongly emphasize the marketing of 1 2 3 4 5 6 7 Strongly emphasize new product and service development.
the company's present products.

How many new kinds of products or services has your company introduced over the past 5 years?

2. A lot of new products/services 1 2 3 4 5 6 7 No new products/services.
3. The changes of the company's 1 2 3 4 5 6 7 There have been small changes of the present products/services.
products/services have been radical.

Our company's relation toward competitors:

4. Normally we react upon initiatives 1 2 3 4 5 6 7 Normally we initiate changes upon which our competitors react.
taken by our competitors.
5. Our company is seldom the first one to 1 2 3 4 5 6 7 Our company is very often the first company to introduce new products/services,
introduce new products or services,
administrative systems, processes...
6. Normally our company tries to avoid 1 2 3 4 5 6 7 Normally our company takes on a very competitive oriented "beat-the-competitor"-
overt competition, but rather takes on a
"live-and-let-live"-position.

Generally our company has . . .

7. A strong tendency toward projects with 1 2 3 4 5 6 7 A strong tendency toward getting involved in high risk projects (with a chance for high
low risk (with normal and secure yield).

| Generally we believe that . . . | | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---|---|---|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 8. The business environment of the company is such that fearless and powerful measures are needed to obtain the company's objectives. | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | The business environment of the company is such that it is better to explore it carefully and gradually in order to achieve the company's objectives. | | | | | |
| When we are facing insecure decision-making situations . . . | | | | | | | | | | | | | | | | |
| 9. We normally take up a fearless, aggressive position, in order to maximize the chance of being able to exploit possible opportunities. | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | We normally take up a cautious "wait-and-see" position in order to minimize the hazard of making costly erroneous decisions. | | | | | |
| Our company's capital access is . . . | | | | | | | | | | | | | | | | |
| 10. Insufficient and a great impediment to our development | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fully satisfactory for the firm's development | | | | | |

III. The following questions evaluate work your firm does for environmental and social causes

1=Disagree Strongly 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Agree Somewhat 6=Agree 7=Agree Strongly

Our company...

..participates in activities which aim to protect and improve the quality of the natural environment. 1 2 3 4 5 6 7

...makes investment to create a better life for future generations. 1 2 3 4 5 6 7

..implements special programs to minimize its negative impact on the natural environment 1 2 3 4 5 6 7

...targets sustainable growth which considers future generations 1 2 3 4 5 6 7

... our company supports nongovernmental organizations working in problematic areas. 1 2 3 4 5 6 7

...our company contributes to campaigns and projects that promote the well-being of the society. 1 2 3 4 5 6 7

...our company encourages its employees to participate in voluntarily social programs. 1 2 3 4 5 6 7

...our company emphasizes the importance of its social responsibilities to the society. 1 2 3 4 5 6 7

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IV. Please consider the dynamics of your firm's top management team for the next fifteen questions.

| | | | | | | | |
|--------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| Each team member has specialized knowledge of some aspect of our project. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have knowledge about an aspect of the project that no other team member has. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Different team members are responsible for expertise in different areas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The specialized knowledge of several different team members was needed to complete the project deliverables. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I know which team members have expertise in specific areas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I was comfortable accepting procedural suggestions from other team members. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I trusted that other members' knowledge about the project was credible. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I was confident relying on the information that other team members brought to the discussion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When other members gave information, I wanted to double-check it for myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I did not have much faith in other members' "expertise." | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Our team worked together in a well-coordinated fashion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Our team had very few misunderstandings about what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Our team needed to backtrack and start over a lot. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| We accomplished the task smoothly and efficiently. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| There was much confusion about how we would accomplish the task | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Non-family managers influence strategic decisions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Non-family managers establish organizational policies | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Non-family managers influence long-term firm plans | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Non-family managers participate in coordinating the firm-level actions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

V. Evaluate the other members of the top management team.

1=Disagree Strongly 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Agree Somewhat 6=Agree 7=Agree Strongly

Excluding myself,

...the **non-family members** of the top management team...

...are qualified to do their job. 1 2 3 4 5 6 7

... are trained to do their job. 1 2 3 4 5 6 7

... have the skills to contribute to the performance of the firm. 1 2 3 4 5 6 7

| Excluding myself, ...the family members of the top management team... | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|----------|----------|----------|----------|
| ... are qualified to do their job. 1 2 3 4 5 6 7 ... are trained to do their job. 1 2 3 4 5 6 7 ... have the skills to contribute to the performance of the firm. 1 2 3 4 5 6 7 | | | | | | |
| VI. Complete the below table about yourself and up to five other members of the top management team. | | | | | | |
| | Team Member | | | | | |
| | You | One | Two | Three | Four | Five |
| How many years of post high school education were completed? | | | | | | |
| What is the member's job title? | | | | | | |
| How many years of full-time work experience have been completed? | | | | | | |
| How many years has the member worked in the automobile industry? | | | | | | |
| How many years has the member worked for your firm? | | | | | | |
| How many years has the member worked as a manager? | | | | | | |
| What is the age of the member? | | | | | | |
| What is the gender of the member? | M F | M F | M F | M F | M F | M F |
| Is the member part of the founding family? | Y N | Y N | Y N | Y N | Y N | Y N |
| Does this member bring new perspectives to the organization? | Y N | Y N | Y N | Y N | Y N | Y N |

VII. Questions about your firm

1=Disagree Strongly 2=Disagree 3=Somewhat Disagree 4=Neutral 5=Agree Somewhat 6=Agree 7=Agree Strongly

Our firm performs better relative to our closest competitor.....

1 2 3 4 5 6 7

1. Net income after taxes

1 2 3 4 5 6 7

3. Meeting financial objectives

1 2 3 4 5 6 7

4. Meeting employment/staffing goals

1 2 3 4 5 6 7

5. Meeting customer satisfaction/retention goals

1 2 3 4 5 6 7

6. Overall firm performance

1 2 3 4 5 6 7

7. Inventory Turnover

1 2 3 4 5 6 7

8. Family members influence the firm's

important strategic decisions

1 2 3 4 5 6 7

9. My firm is controlled by members of the

founding family

1 2 3 4 5 6 7

10. My firm is family owned

1 2 3 4 5 6 7

11. What is the annual revenue of your firm? \$0 to \$24.99M \$25M to \$49.99M \$50M to \$99.99M \$100M to \$124.99M \$125m to \$149.99M more than \$150M**12.** What was your firm's net profit for the last completed fiscal year? \$0 to \$249,999 \$250,000 to \$499,000 \$500,000 to \$749,999 \$750,000 to \$999,999 \$1,000,000 to \$1,249,999 more than \$1,250,000**13.** How many workers are employed by your firm? _____ Full-time _____ Part-time**14.** Is your firm a family firm? Yes No**15.** What generation is your business? First Generation (You founded) Second Generation (Parents) Third Generation (Grandparents)**16.** How many locations are owned by the parent company? _____**17.** What brands are sold by the parent company? Brand One _____ Brand Two _____ Brand Three _____ Brand Four _____ Brand Five _____**18.** What percentage of profits come from the following (total should equal 100)? New car sales _____ % Used Car Sales _____ %

Service/Parts F&I (Financing, Leasing, Gap, Warranties, and etcetera) _____ %

Other _____ %

Transactive Memory System Items

1. Specialization

- a. Each team member has specialized knowledge of some aspect of our project.
- b. I have knowledge about an aspect of the project that no other team member has.
- c. Different team members are responsible for expertise in different areas.
- d. The specialized knowledge of several different team members was needed to complete the project deliverables.
- e. I know which team members have expertise in specific areas.

2. Credibility

- a. I was comfortable accepting procedural suggestions from other team members.
- b. I trusted that other members' knowledge about the project was credible.
- c. I was confident relying on the information that other team members brought to the discussion.
- d. When other members gave information, I wanted to double-check it for myself. (reversed)
- e. I did not have much faith in other members' "expertise." (reversed)

3. Coordination

- a. Our team worked together in a well-coordinated fashion.
- b. Our team had very few misunderstandings about what to do.
- c. Our team needed to backtrack and start over a lot. (reversed)
- d. We accomplished the task smoothly and efficiently.
- e. There was much confusion about how we would accomplish the task. (reversed)

Entrepreneurial Orientation Items

1. Innovativeness (Miller, 1983; Covin and Slevin, 1989)

Generally our company prefers to . . .

a. Strongly emphasize the marketing of the company's present products. 1 2 3 4 5 6 7

Strongly emphasize R&D.

How many new kinds of products or services has your company introduced over the past 5 years?

b. A lot of new products/services. 1 2 3 4 5 6 7 No new products/services.

c. The changes of the company's products/services have been radical. 1 2 3 4 5 6 7 There has been small changes of the present products/services.

2. Proactiveness (Miller, 1983; Covin and Slevin, 1989)

Our company's relation toward competitors:

d. Normally we react upon initiatives taken by our competitors. 1 2 3 4 5 6 7 Normally we initiate changes upon which our competitors react.

- e. Our company is seldom the first one to introduce new products or services, administrative systems, methods of production, etc. 1 2 3 4 5 6 7 Our company is veryoften the first company to introduce new products/services, administrative systems, methods of production etc.
- f. Normally our company tries to avoid overt competition, but rather takes on a “live-and-let-live”-position. 1 2 3 4 5 6 7 Normally our company takes on a very competitive oriented “beat-the-competitor” position

3. Risk Taking (Miller, 1983; Covin and Slevin, 1989)

Generally our company has . . .

- g. A strong tendency toward projects with low risk (with normal and secure yield). 1 2 3 4 5 6 7 A strong tendency toward getting involved in high risk projects (with a chance for high yield).

Generally we believe that . . .

- h. The business environment of the company is such that fearless and powerful measures are needed to obtain the company’s objectives. 1 2 3 4 5 6 7 The business environment of the company is such that it is better to explore it carefully and gradually in order to achieve the company’s objectives.

When we are facing insecure decision-making situations . . .

- i. We normally take up a fearless, aggressive position, in order to maximize the chance of being able to exploit possible opportunities. 1 2 3 4 5 6 7 We normally take up a cautious “wait-and-see” position in order to minimize the hazard of making costly erroneous decisions.

Human Capital Items (Frese and Utsch, 2005)

1. Non-Family Human Capital

- a. The non-family members of the top management team are qualified to do their job.
- b. The non-family members of the top management team are trained to do their job.
- c. The non-family members of the top management team have the skills to contribute to the performance of the firm.

2. Family Human Capital

- a. The family members of the top management team are qualified to do their job.
- b. The family members of the top management team are trained to do their job.
- c. The family members of the top management team have the skills to contribute to the performance of the firm.

Sustainability Items (Turker, 2009).

1. Environmental Responsibility

- a. Our company participates in activities which aim to protect and improve the quality of the natural environment.

- b. Our company makes investment to create a better life for future generations.
 - c. Our company implements special programs to minimize its negative impact on the natural environment.
 - d. Our company targets sustainable growth which considers future generations.
- 2. Social Responsibility**
- a. Our company supports nongovernmental organizations working in problematic areas. (This item was removed from the final analysis)
 - b. Our company contributes to campaigns and projects that promote the well-being of the society
 - c. Our company encourages its employees to participate in voluntarily social programs.
 - d. Our company emphasizes the importance of its social responsibilities to the society.

References

- Acs, Z. J., & Armington, C. (2004). The impact of geographic differences in human capital on service firm formation rates. *Journal of Urban Economics*, 56(2), 244-278.
- Akgun, A. E., Byrne, J., Keskin, H., Lynn, G. S., & Imamoglu, S. Z. (2005). Knowledge networks in new product development projects: A transactive memory perspective. *Information & Management*, 42(8), 1105-1120.
- Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573-596.
- Ambec, S., & Lanoie, P. (2008). Does it pay to be green? A systematic overview. *The Academy of Management Perspectives*, 22(4), 45-62.
- Ancona, D. G., & Caldwell, D. F. (1992). Demography and design: Predictors of new product team performance. *Organization Science*, 3(3), 321-341.
- Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82(1), 150-169.

Argote, L., McEvily, B., & Reagans, R. (2003). Managing knowledge in organizations: An integrative framework and review of emerging themes. *Management Science*, 49(4), 571-582.

Ashby, W. R. (1956). *An introduction to cybernetics* Taylor & Francis.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *The Academy of Management Journal*, 28(2), 446-463.

Austin, J. R. (2003). Transactive memory in organizational groups: The effects of content, consensus, specialization, and accuracy on group performance. *Journal of Applied Psychology*, 88(5), 866-878.

Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(1), 107-124.

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

Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, 83(3), 377-391.

Bartholomeusz, S., & Tanewski, G. A. (2006). The relationship between family firms and corporate governance. *Journal of Small Business Management*, 44(2), 245-267.

Basu, A., Mazumdar, T., & Raj, S. E. (2003). Indirect network externality effects on product attributes. *Marketing Science*, 22(2), 209-221.

Bates, T. (1995). Self-employment entry across industry groups. *Journal of Business Venturing*, 10(2), 143-156.

Beatty, R. P., & Zajac, E. J. (1994). Managerial incentives, monitoring, and risk bearing: A study of executive compensation, ownership, and board structure in initial public offerings. *Administrative Science Quarterly*, 39(2), 313-335.

Becker, G. S. (1964). Human capital. New York. *Columbia University for the National Bureau of Economic Research*.

Bellu, R. R., Davidsson, P., & Goldfarb, C. (1990). Toward a theory of entrepreneurial behaviour; empirical evidence from Israel, Italy And Sweden. *Entrepreneurship & Regional Development*, 2(2), 195-209.

Berman, S. L., Down, J., & Hill, C. W. L. (2002). Tacit knowledge as a source of competitive advantage in the National Basketball Association. *Academy of Management Journal*, 45(1), 13-31.

Berry, L. L. (1995). Relationship marketing of services—growing interest, emerging perspectives. *Journal of the Academy of Marketing Science*, 23(4), 236-245.

Boyd, D. P., & Gumpert, D. E. (1984). The loneliness of the small-business owner.
Harvard Business Review, 62(6), 18-24.

Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86(2), 307-324.

Brewer, M. B., & Brown, R. J. (1998). *Intergroup relations*. McGraw-Hill.

Brown R.J. (1998). Intergroup relations: A field with a short history but a long future. In, *Advances in Psychological Science*, Adair J.G., BeAlanger, D., & Dion, K.L. (eds). Psychology Press: Hove; 73-91.

Burmeister, K., & Schade, C. (2007). Are entrepreneurs' decisions more biased? an experimental investigation of the susceptibility to status quo bias. *Journal of Business Venturing*, 22(3), 340-362.

Buttner, E. H., & Rosen, B. (1989). Funding new business ventures: Are decision makers biased against women entrepreneurs? *Journal of Business Venturing*, 4(4), 249-261.

Capron, L., & Shen, J. (2007). Acquisitions of private vs. public firms: Private information, target selection, and acquirer returns. *Strategic Management Journal*, 28(9), 891-911.

Carney, M. (2005). Corporate governance and competitive advantage in family-controlled firms. *Entrepreneurship Theory and Practice*, 29(3), 249-265.

Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *The Academy of Management Review*, 4(4), 497-505.

Chapter 1 Castrogiovanni, G. J. (1996). Pre-startup planning and the survival of new small businesses: Theoretical linkages. *Journal of Management*, 22(6), 801-822.

Chandler, A. D. (1990). *Scale and scope: The dynamics of industrial capitalism*. Harvard University Press.

Chaney, P. K., Devinney, T. M., & Winer, R. S. (1991). The impact of new product introductions on the market value of firms. *The Journal of Business*, 64(4), 573-610.

Chrisman, J. J., Chua, J. H., & Sharma, P. (1998). Important attributes of successors in family businesses: An exploratory study. *Family Business Review*, 11(1), 19-34.

Christmann, P., & Taylor, G. (2006). Firm self-regulation through international certifiable standards: Determinants of symbolic versus substantive implementation. *Journal of International Business Studies*, 37(6), 863-878.

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.

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29-49.

Cohen, J. (1977). The t test for means. *Statistical Power Analysis for the Behavioral Sciences*. Toronto, Canada: Academic Press Inc.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.

Cook, T., & Campbell, D. (1975). The design and conduct of experiments and quasi-experiments in field settings, in *Handbook of Industrial and Organizational Research*, ed. Martin Dunnette, Chicago: Rand McNally & Co.

Cooper, A. C., & Gimeno-Gascon, F. J. (1990). *Entrepreneurs, processes of founding, and new firm performance* Institute for Research in the Behavioral, Economic, and Management Sciences, Krannert Graduate School of Management, Purdue University.

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5), 371-395.

Corbetta, G., & Salvato, C. (2004). Self-Serving or Self-Actualizing? Models of man and agency costs in different types of family firms: A commentary on “Comparing the agency costs of family and Non-family firms: Conceptual issues and exploratory evidence”. *Entrepreneurship Theory and Practice*, 28(4), 355-362.

Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic process effects on the entrepreneurial orientation–sales growth rate relationship. *Entrepreneurship Theory and Practice*, 30(1), 57-81.

Covin, J. G., & Slevin, D. P. (1986). The development and testing of an organizational-level entrepreneurship scale. *Frontiers of Entrepreneurship Research*, 1, 626–639.

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. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship: Theory and Practice*, 16(1), 7-25.

Covin, J. G., Slevin, D. P., & Schultz, R. L. (1994). Implementing strategic missions: Effective strategic, structural and tactical choices. *Journal of Management Studies*, 31(4), 481-506.

Cox, T. (1993). *Cultural diversity in organizations: Theory, research, and practice* Berrett-Koehler San Francisco.

Craig, J. B. L., & Moores, K. (2006). A 10-Year longitudinal investigation of strategy, systems, and environment on innovation in family firms. *Family Business Review*, 19(1), 1-10.

Cyert, R. M., & March, J. G. (1992). *A behavioral theory of the firm* Wiley-Blackwell.

- Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS Quarterly*, 11(3), 354-366.
- Daily, C. M., & Dollinger, M. J. (1992). An empirical examination of ownership structure in family and professionally managed firms. *Family Business Review*, 5(2), 117-136.
- Danco, L. (1980). Inside the family business. Cleveland: Center for family business.
- Datta, D. K., & Rajagopalan, N. (1998). Industry structure and CEO characteristics: An empirical study of succession events. *Strategic Management Journal*, 19(9), 833-852.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331.
- De Jong, B. A., & Elfring, T. (2010). How does trust affect the performance of ongoing teams? the mediating role of reflexivity, monitoring, and effort. *The Academy of Management Journal*, 53(3), 535-549.
- Denis, D. J., Denis, D. K., & Sarin, A. (1997). Agency problems, equity ownership, and corporate diversification. *The Journal of Finance*, 52(1), 135-160.
- Desarbo, W., Macmillan, I. C., & Day, D. L. (1987). Criteria for corporate venturing: Importance assigned by managers. *Journal of Business Venturing*, 2(4), 329-350.

DeTienne, D. R., Shepherd, D. A., & De Castro, J. O. (2008). The fallacy of “only the strong survive”: The effects of extrinsic motivation on the persistence decisions for under-performing firms. *Journal of Business Venturing*, 23(5), 528-546.

Devinney, T. M. (2009). Is the socially responsible corporation a myth? the good, the bad, and the ugly of corporate social responsibility. *The Academy of Management Perspectives*, 23(2), 44-56.

Dimitratos, P., Lioukas, S., & Carter, S. (2004). The relationship between entrepreneurship and international performance: The importance of domestic environment. *International Business Review*, 13(1), 19-41.

Durand, R., & Vargas, V. (2003). Ownership, organization, and private firms' efficient use of resources. *Strategic Management Journal*, 24(7), 667-675.

Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *The Academy of Management Review*, 23(4), 660-679.

Edwards, B. D., Day, E. A., Arthur Jr., W., & Bell, S. T. (2006). Relationships among team ability composition, team mental models, and team performance. *Journal of Applied Psychology*, 91(3), 727-736.

- Eisenhardt, K. M., & Schoonhoven, C. B. (1990). Organizational growth: Linking founding team, strategy, environment, and growth among US semiconductor ventures, 1978-1988. *Administrative Science Quarterly*, 35(3), 504-529.
- Ellis, A. P. J., Bell, B. S., Ployhart, R. E., Hollenbeck, J. R., & Ilgen, D. R. (2005). An evaluation of generic teamwork skills training with action teams: effects on cognitive and skill-based outcomes. *Personnel Psychology*, 58(3), 641-672.
- Evans, D. S., & Leighton, L. S. (1989). Some empirical aspects of entrepreneurship. *The American Economic Review*, 79(3), 519-535.
- Faraj, S., & Sproull, L. (2000). Coordinating expertise in software development teams. *Management Science*, 46(12), 1554-1568.
- Fay, M., & Williams, L. (1993). Gender bias and the availability of business loans. *Journal of Business Venturing*, 8(4), 363-376.
- Fich, E. M., & Shivdasani, A. (2007). Financial fraud, director reputation, and shareholder wealth. *Journal of Financial Economics*, 86(2), 306-336.
- Folta, T. B., & Janney, J. J. (2004). Strategic benefits to firms issuing private equity placements. *Strategic Management Journal*, 25(3), 223-242.
- Franke, N., Gruber, M., Harhoff, D., & Henkel, J. (2006). What you are is what you like—similarity biases in venture capitalists' evaluations of start-up teams. *Journal of Business Venturing*, 21(6), 802-826.

- Freeman, R. E. (1984). Strategic planning: A stakeholder approach. *Pitman, London*,
- Friedman, M. (1970). A Friedman doctrine: The social responsibility of business is to increase its profits. *The New York Times Magazine*, 13, 32-33.
- Gavetti, G., Levinthal, D. A., & Rivkin, J. W. (2005). Strategy making in novel and complex worlds: The power of analogy. *Strategic Management Journal*, 26(8), 691-712.
- George, B. A. (2011). Entrepreneurial orientation: A theoretical and empirical examination of the consequences of differing construct representations. *Journal of Management Studies*.
- George, G., Wood, D. R., & Khan, R. (2001). Networking strategy of boards: Implications for small and medium-sized enterprises. *Entrepreneurship & Regional Development*, 13(3), 269-285.
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42(4), 750-783.
- Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J. L., & 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.

Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal*, 15(3), 241-250.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(Special Issue: Knowledge and the Firm), 109-122.

Griffin, J. J., & Mahon, J. F. (1997). The corporate social performance and corporate financial performance debate. *Business & Society*, 36(1), 5-31.

Gruenfeld, D. H., Mannix, E. A., Williams, K. Y., & Neale, M. A. (1996). Group composition and decision making: How member familiarity and information distribution affect process and performance. *Organizational Behavior and Human Decision Processes*,

Habbershon, T. G., & Pistrui, J. (2002). Enterprising families domain: Family-influenced ownership groups in pursuit of transgenerational wealth. *Family Business Review*, 15(3), 223-227.

Hair Jr, J. F., Anderson, R. E., Tatham, R. L., & William, C. Black (1992), *Multivariate Data Analysis*. New York: Macmillan.

Hambrick, D.C. (1983). An empirical typology of mature industrial-product environments. *Academy of Management Journal*, 26(2), 213-230.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1992). Structural equation modeling. *Multivariate Data Analysis-with Readings*, 432-452.

Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion.

The Academy of Management Journal, 36(4), 844-863.

Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25(5), 439-448.

Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25(5), 439-448.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review*, 9(2), 193-206.

Hamel, G., & Ruben, P. (2000). *Leading the revolution* Harvard Business School Press Boston.

Handler, W. C. (1992). The succession experience of the next generation. *Family Business Review*, 5(3), 283-307.

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

Harris, D., & Helfat, C. (1997). Specificity of CEO human capital and compensation. *Strategic Management Journal*, 18(11), 895-920.

- Hart, S. L. (1992). An integrative framework for strategy-making processes. *The Academy of Management Review*, 17(2), 327-351.
- Heusinkveld, S., & Benders, J. (2005). Contested commodification: Consultancies and their struggle with new concept development. *Human Relations*, 58(3), 283-310.
- Hill, G. W. (1982). Group versus individual performance: Are $x_h: I > N </x_h: I > 1$ heads better than one? *Psychological Bulletin*, 91(3), 517-539.
- Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *The Academy of Management Review*, 28(3), 383-396.
- Hitt, M. A., Bierman, L., Shimizu, K., & Kochhar, R. (2001). Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *The Academy of Management Journal*, 44(1), 13-28.
- Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(6-7), 479-491.
- Hockerts, K., & Wustenhagen, R. (2010). Greening goliaths versus emerging davids--theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5), 481-492.

Hollingshead, A. B. (1998). Retrieval processes in transactive memory systems. *Journal of Personality and Social Psychology*, 74(3), 659-671.

Hollingshead, A. B. (2001). Cognitive interdependence and convergent expectations in transactive memory. *Journal of Personality and Social Psychology*, 81(6), 1080-1089.

Hollingshead, A. B., & Fraidin, S. N. (2003). Gender stereotypes and assumptions about expertise in transactive memory. *Journal of Experimental Social Psychology*, 39(4), 355-363.

Huergo, E., & Jaumandreu, J. (2004). How does probability of innovation change with firm age? *Small Business Economics*, 22(3), 193-207.

Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, 29(3), 401-426.

Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management*, 29(6), 963-989.

James, H. S. (1999). Owner as manager, extended horizons and the family firm. *International Journal of the Economics of Business*, 6(1), 41-55.

- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40(2), 256-282.
- Jenkins, H. (2004). Corporate social responsibility and the mining industry: Conflicts and constructs. *Corporate Social Responsibility and Environmental Management*, 11(1), 23-34.
- Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *The Academy of Management Review*, 20(2), 404-437.
- Kanawattanachai, P., & Yoo, Y. (2008). The impact of knowledge coordination on virtual team performance over time. *Management Information Systems Quarterly*, 31(4), 783-808.
- Kanter, R. (1985). Supporting innovation and venture development in established companies. *Journal of Business Venturing*, 1(1), 47-60.
- Katz, J., & Gartner, W. B. (1988). Properties of emerging organizations. *The Academy of Management Review*, 13(3), 429-441
- Kellermanns, F. W., Eddleston, K. A., Barnett, T., & Pearson, A. (2008). An exploratory study of family member characteristics and involvement: Effects on entrepreneurial behavior in the family firm. *Family Business Review*, 21(1), 1-14.

- Kodithuwakku, S. S., & Rosa, P. (2002). The entrepreneurial process and economic success in a constrained environment. *Journal of Business Venturing*, 17(5), 431-465.
- Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, 7(3), 77-124.
- Langfred, C. W. (2007). The downside of self-management: A longitudinal study of the effects of conflict on trust, autonomy, and task interdependence in self-managing teams. *The Academy of Management Journal*, 50(4), 885-900.
- Lankoski, L. (2006). Environmental and economic performance the basic links. *Schaltegger, S. and Wagner, M. Managing the Business Case for Sustainability Sheffield: Greenleaf Publishing*, 32-46.
- Lawrence, B. S. (1997). The black box of organizational demography. *Organization Science*, 8(1), 1-22.
- Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, 22(6-7), 615-640.
- Lee, S. M., & Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. *Journal of World Business*, 35(4), 401-416.

Lengnick-Hall, C. A. (1992). Innovation and competitive advantage: What we know and what we need to learn. *Journal of Management*, 18(2), 399-429.

Lévesque, M., & Schade, C. (2005). Intuitive optimizing: Experimental findings on time allocation decisions with newly formed ventures. *Journal of Business Venturing*, 20(3), 313-342.

Lewis, K. (2003). Measuring transactive memory systems in the field: Scale development and validation. *Journal of Applied Psychology*, 88(4), 587-604.

Lewis, K., Lange, D., & Gillis, L. (2005). Transactive memory systems, learning, and learning transfer. *Organization Science*, 16(6), 581-598.

Liang, D. W., Moreland, R., & Argote, L. (1995). Group versus individual training and group performance: The mediating role of transactive memory. *Personality and Social Psychology Bulletin*, 21(4), 384-393.

Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic Management Journal*, 9(S1), 41-58.

Littlepage, G., Robison, W., & Reddington, K. (1997). Effects of task experience and group experience on group performance, member ability, and recognition of expertise. *Organizational Behavior and Human Decision Processes*, 69(1), 133-147.

Litz, R. A., & Kleysen, R. F. (2001). Your old men shall dream dreams, your young men shall see visions: Toward a theory of family firm innovation with help from the Brubeck family. *Family Business Review*, 14(4), 335-351.

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

Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance:: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429-451.

Lyman, A. R. (1991). Customer service: Does family ownership make a difference? *Family Business Review*, 4(3), 303-324.

Maignan, I., & Ferrell, O. C. (2000). Measuring corporate citizenship in two countries: The case of the United States and France. *Journal of Business Ethics*, 23(3), 283-297.

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

McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *The Academy of Management Journal*, 38(1), 24-59.

McCough, A. C., & Rogelberg, S. G. (2003). Selection in teams: An exploration of the teamwork knowledge, skills, and ability test. *International Journal of Selection and Assessment*, 11(1), 56-66.

McConaugby, D. L., Matthews, C. H., & Fialko, A. S. (2001). Founding family controlled firms: Performance, risk, and value. *Journal of Small Business Management*, 39(1), 31-49.

McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *The Academy of Management Journal*, 31(4), 854-872.

McLeod, P. L., Lobel, S. A., & Cox, T. H. (1996). Ethnic diversity and creativity in small groups. *Small Group Research*, 27(2), 248.

McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal*, 21(5), 603-609.

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *The Academy of Management Review*, 26(1), 117-127.

McWilliams, A., Siegel, D. S., & Wright, P. M. (2006). Corporate social responsibility: Strategic implications. *Journal of Management Studies*, 43(1), 1-18.

Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: The emergence of corporate environmentalism as market strategy. *The Journal of Marketing*, 61(1), 51-67.

Meyer, M. W., & Zucker, L. G. (1989). *Permanently failing organizations* Sage Publications, Inc.

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

Miller, D., & Friesen, P. H. (1978). Archetypes of strategy formulation. *Management Science*, 24(9), 921-933.

Mincer, J. (1974). Schooling, experience, and earnings. *human behavior & social institutions* no. 2.

Mintzberg, H. (1978). Patterns in strategy formation. *Management Science*, 24(9), 934-948.

Mishra, C. S., & McConaughy, D. L. (1999). Founding family control and capital structure: The risk of loss of control and the aversion to debt. *Entrepreneurship: Theory and Practice*, 23(4), 53-64.

Mitchell, J. R., & Shepherd, D. A. To thine own self be true: Images of self, images of opportunity, and entrepreneurial action. *Journal of Business Venturing*, 25(1), 138-154.

Moreland, R. L., Argote, L., & Krishnan, R. (1996). Socially shared cognition at work: Transactional memory and group performance. In J. L. Nye & A. M. Brower (Eds.), What's so social about social cognition? Social cognition research in small groups (pp. 57–84). Thousand Oaks, CA: Sage.

Moreland, R. L., & Myaskovsky, L. (2000). Exploring the performance benefits of group training: Transactional memory or improved communication? *Organizational Behavior and Human Decision Processes*, 82(1), 117-133.

Mowery, D. C., Oxley, J. E., & Silverman, B. S. (1996). Strategic alliances and interfirm knowledge transfer. *Strategic Management Journal*, 17(, Special Issue: Knowledge and the Firm), 77-91.

Mullins, J. W. (1996). Early growth decisions of entrepreneurs: The influence of competency and prior performance under changing market conditions. *Journal of Business Venturing*, 11(2), 89-105.

Murnighan, J. K., & Conlon, D. E. (1991). The dynamics of intense work groups: A study of British String Quartets. *Administrative Science Quarterly*, 36(2), 165-186.

- Murray, A. I. (1989). Top management group heterogeneity and firm performance. *Strategic Management Journal*, 10(S1), 125-141.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *The 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., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial orientation, risk taking, and performance in family firms. *Family Business Review*, 20(1), 33-47.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.
- O'Reilly, C., Snyder, R. C., & Boothe, J. N. (1993). Effects of executive team demography on organizational change. In: Huber, G., Glick. (Eds.), *Organizational Change and Redesign*. Oxford University Press, New York, pp. 147-175.
- Patzelt, H., Shepherd, D. A., Deeds, D., & Bradley, S. W. (2008). Financial slack and venture managers' decisions to seek a new alliance. *Journal of Business Venturing*, 23(4), 465-481.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly*, 44(1), 1-3.

- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly*, 44(1), 1-3.
- Pfeffer, J. (1994). *Managing with power: Politics and influence in organizations* Harvard Business Press.
- Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. New York: Harper and Row.
- Pinto, M. B., & Pinto, J. K. (1990). Project team communication and cross-functional cooperation in new program development. *Journal of Product Innovation Management*, 7(3), 200-212.
- Pisano, G. P. (1994). Knowledge, integration, and the locus of learning: An empirical analysis of process development. *Strategic Management Journal*, 15(S1), 85-100.
- Porter, M. E., & Van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *The Journal of Economic Perspectives*, 9(4), 97-118.
- Posnikoff, J. F. (1997). Disinvestment from South Africa: They did well by doing good. *Contemporary Economic Policy*, 15(1), 76-86.
- Priem, R. L., Lyon, D. W., & Dess, G. G. (1999). Inherent limitations of demographic proxies in top management team heterogeneity research. *Journal of Management*, 25(6), 935-953.

Prince, R. A. (1990). Family business mediation: A conflict resolution model. *Family Business Review*, 3(3), 209-223.

Ramaswamy, K. (2001). Organizational ownership, competitive intensity, and firm performance: An empirical study of the Indian manufacturing sector. *Strategic Management Journal*, 22(10), 989-998.

Rauch, A., & Frese, M. (2008). Entrepreneurial orientation. *Handbook Utility Management*, , 89-103.

Rauch, A., Frese, M., & Utsch, A. (2005). Effects of human capital and long-term human resources development and utilization on employment growth of small-scale businesses: A causal Analysis. *Entrepreneurship Theory and Practice*, 29(6), 681-698.

Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761-787.

Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761-787.

Raymond, L., & Croteau, A. (2006). Enabling the strategic development of SMEs through advanced manufacturing systems: A configurational perspective. *Industrial Management & Data Systems*, 106(7), 1012-1032.

Richard, O. C., Barnett, T., Dwyer, S., & Chadwick, K. (2004). Cultural diversity in management, firm performance, and the moderating role of entrepreneurial orientation dimensions. *The Academy of Management Journal*, 47(2), 255-266.

Robinson, P. B., & Sexton, E. A. (1994). The effect of education and experience on self-employment success. *Journal of Business Venturing*, 9(2), 141-156.

Rogoff, E. G., & Heck, R. K. Z. (2003). Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship. *Journal of Business Venturing*, 18(5), 559-566.

Rosman, A. J., & O'Neill, H. M. (1993). Comparing the information acquisition strategies of venture capital and commercial lenders: A computer-based experiment. *Journal of Business Venturing*, 8(5), 443-460.

Runyan, R., Droke, C., & Swinney, J. (2008). Entrepreneurial orientation versus small business orientation: What are their relationships to firm performance? *Journal of Small Business Management*, 46(4), 567-588.

Russo, M. V., & Fouts, P. A. (1997). A resource-based perspective on corporate environmental performance and profitability. *The Academy of Management Journal*, 40(3), 534-559.

Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23(2), 224-253.

Schmickl, C., & Kieser, A. (2008). How much do specialists have to learn from each other when they jointly develop radical product innovations? *Research Policy*, 37(3), 473-491.

Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present, and future. *The Academy of Management Review*, 32(2), 344-354.

Schultz, T. W. (1959). Investment in man: An economist's view. *The Social Service Review*, 33(2), 109-117.

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1-17.

Schulze, W. S., Lubatkin, M. H., & Dino, R. N. (2002). Altruism, agency, and the competitiveness of family firms. *Managerial and Decision Economics*, 23(4-5), 247-259.

Schulze, W. S., Lubatkin, M. H., & Dino, R. N. (2003). Toward a theory of agency and altruism in family firms. *Journal of Business Venturing*, 18(4), 473-490.

Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organization Science*, 12(2) , 99-116.

Schumpeter, J. A. *Capitalism, Socialism and Democracy*, New York: Harper and Brothers, 1942.

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.

Shepherd, D. A., & Zacharakis, A. (2002). Venture capitalists' expertise: A call for research into decision aids and cognitive feedback. *Journal of Business Venturing*, 17(1), 1-20.

Shepherd, D. A., Zacharakis, A., & Baron, R. A. (2003). VCs' decision processes: Evidence suggesting more experience may not always be better. *Journal of Business Venturing*, 18(3), 381-401.

Simpson, W. G., & Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of Business Ethics*, 35(2), 97-109.

Slater, S. F., & Olson, E. M. (2001). Marketing's contribution to the implementation of business strategy: An empirical analysis. *Strategic Management Journal*, 22(11), 1055-1067.

Smart, D. T., & Conant, J. S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance. *Journal of Applied Business Research*, 10(3), 28-28.

Smith, K. G., Collins, C. J., & Clark, K. D. (2005). Existing knowledge, knowledge creation capability, and the rate of new product introduction in high-technology firms. *The Academy of Management Journal*, 48(2), 346-357.

Sorenson, R. L. (2000). The contribution of leadership style and practices to family and business success. *Family Business Review*, 13(3), 183-200.

Souitaris, V. (2002). Firm-specific competencies determining technological innovation: A survey in Greece. *R&D Management*, 32(1), 61-77.

Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? the effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566-591

Spence, M., & Crick, D. (2009). An exploratory study of canadian international new venture firms' development in overseas markets. *Qualitative Market Research: An International Journal*, 12(2), 208-233.

- Spender, J. C. (1996). Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, 17 (Winter Special Issue), 45-62.
- Stam, W., & Elfring, T. (2008). Entrepreneurial orientation and new venture performance: The moderating role of intra-and extraindustry social capital. *The Academy of Management Journal*, 51(1), 97-111.
- Stevens, M. J., & Campion, M. A. (1994). The knowledge, skill, and ability requirements for teamwork: Implications for human resource management. *Journal of Management*, 20(2), 503-530.
- Sun, B., Xie, J., & Cao, H. H. (2004). Product strategy for innovators in markets with network effects. *Marketing Science*, 23(2), 243-254.
- Swap, W., Leonard, D., Shields, M., & Abrahams, L. (2001). Using mentoring and storytelling to transfer knowledge in the workplace. *Journal of Management Information Systems*, 18(1), 95-114.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.
- Tang, J., Tang, Z., Marino, L. D., Zhang, Y., & Li, Q. (2008). Exploring an inverted U-Shape relationship between entrepreneurial orientation and performance in Chinese ventures. *Entrepreneurship Theory and Practice*, 32(1), 219-239.

- Teoh, S. H., Welch, I., & Wazzan, C. P. (1999). The effect of socially activist investment policies on the financial markets: Evidence from the South African boycott. *Journal of Business*, 72(1) 35-89.
- Thaler, R. H. (1994). Psychology and savings policies. *American Economic Review*, 84(2), 186-192.
- Turker, D. (2009). Measuring corporate social responsibility: A scale development study. *Journal of Business Ethics*, 85(4), 411-427.
- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2009). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, 26(3), 341-358.
- Van, d. B., & Stremersch, S. (2004). Social contagion and income heterogeneity in new product diffusion: A meta-analytic test. *Marketing Science*, 23(4), 530-544.
- Varadarajan, P. R., & Menon, A. (1988). Cause-related marketing: A coalignment of marketing strategy and corporate philanthropy. *The Journal of Marketing*, 52(3), 58-74.
- Villalonga, B., & McGahan, A. M. (2005). The choice among acquisitions, alliances, and divestitures. *Strategic Management Journal*, 26(13), 1183-1208.
- Vinton, K. L. (1998). Nepotism: An interdisciplinary model. *Family Business Review*, 11(4), 297-303.

- Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic Management Journal*, 18(4), 303-319.
- Wagner, W. G., Pfeffer, J., & O'Reilly, C. A. (1984). Organizational demography and turnover in top-management group. *Administrative Science Quarterly*, 29(1), 74-92.
- Ward, J. L. (1997). Growing the family business: Special challenges and best practices. *Family Business Review*, 10(4), 323-337.
- Wegner, D. M. (1987). Transactive memory: A contemporary analysis of the group mind. In B. Mullen & G. R. Goethals (Eds.), *Theories of group behavior* (pp. 185–205). New York: Springer–Verlag.
- Wegner, D. M., Erber, R., & Raymond, P. (1991). Transactive memory in close relationships. *Journal of Personality and Social Psychology*, 61(6), 923-929.
- Weick, K. E. (1996). Drop your tools: An allegory for organizational studies. *Administrative Science Quarterly*, 41(2), 301-313.
- Westphal, J. D. (1999). Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *The Academy of Management Journal*, 42(1), 7-24.

- Westphal, J. D., & Milton, L. P. (2000). How experience and network ties affect the influence of demographic minorities on corporate boards. *Administrative Science Quarterly*, 45(2), 366-398.
- Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *The Academy of Management Journal*, 35(1), 91-121.
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation-performance relationship. *Entrepreneurship: Theory and Practice*, 24(1), 39-50.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307-1314.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71-91.
- Williams, W. M., & Sternberg, R. J. (1988). Group intelligence: Why some groups are better than others. *Intelligence*, 12(4), 351-377.
- Wright, P., & Ferris, S. P. (1997). Agency conflict and corporate strategy: The effect of divestment on corporate value. *Strategic Management Journal*, 18(1), 77-83.

Yates, J. A., & Orlikowski, W. J. (1992). Genres of organizational communication: A structural approach to studying communication and media. *The Academy of Management Review*, 17(2), 299-326.

Zacharakis, A. L., & Meyer, G. D. (1998). A lack of insight: Do venture capitalists really understand their own decision process? *Journal of Business Venturing*, 13(1), 57-76.

Zacharakis, A. L., & Meyer, G. D. (2000). The potential of actuarial decision models: Can they improve the venture capital investment decision? *Journal of Business Venturing*, 15(4), 323-346.

Zacharakis, A. L., & Shepherd, D. A. (2001). The nature of information and overconfidence on venture capitalists' decision making. *Journal of Business Venturing*, 16(4), 311-332.

Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6(4), 259-285.

Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10(1), 43-58.

Zahra, S. A., & Fescina, M. (1991). Will leveraged buyouts kill US corporate research & development? *The Executive*, 5(4), 7-21.

- Zahra, S. A., & Sharma, P. (2004). Family business research: A strategic reflection. *Family Business Review*, 17(4), 331-346.
- Zajac, E. J., & Westphal, J. D. (1996). Director reputation, CEO-board power, and the dynamics of board interlocks. *Administrative Science Quarterly*, 41(3), 507-529.
- Zenger, T. R., & Lawrence, B. S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *The Academy of Management Journal*, 32(2), 353-376.
- Zhang, Z. X., Hempel, P. S., Han, Y. L., & Tjosvold, D. (2007). Transactive memory system links work team characteristics and performance. *Journal of Applied Psychology*, 92(6), 1722.

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