FOUNDER CENTRALITY AND TOP MANAGEMENT TEAM SOCIAL NETWORK EFFECTS ON TOP MANAGEMENT BEHAVIORAL INTEGRATION AND FIRM PERFORMANCE IN FAMILY BUSINESSES

A

Dissertation

Presented to the

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In Partial Fulfillment

of the Requirements for the Degree of

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by

Dominic M. Mwenja

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Abstract of Dissertation

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by

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Committee Chairperson: Louise Kelly, Ph.D.

THE PROBLEM. This was a strategic management research study of the effects of founder centrality and top management team social networks on top management team behavioral integration and firm performance in family business. The use of social networks as a strategic management tool has gained interest in the past few years. An examination of prior family business research and literature shows very little, if any, attention has been paid to social networks in the family business and especially the concept of founder centrality. Most research in family business has concentrated on issues such as succession, conflict, financing, and other issues that researchers have considered unique to the family business. Since the founder is the most important person in the family business, there is need to understand how he/she affects the strategic direction of the firm and the formation of social networks among the top management team members.

METHOD. A descriptive correlational study was conducted. A survey was sent to 1186 family businesses in the West Coast and Southeastern parts of the United States. The survey included questionnaires for the founder/CEO and the members of the top management team. The companies were identified from lists of companies in the Click Data databases and regional chambers of commerce.

RESULTS. Significance relationships were found between founder centrality and social network size, range, and strength of ties for both internal and external networks. The relationship between family culture influence, family power influence, and founder centrality were also found to be significant. Other results showed a significant relationship between top management team behavioral integration and firm performance and social capital and firm performance.

The results reaffirmed the importance of the role played by the founder in determining the firm's strategic direction. This was a confirmation that the founder centrality concept is an important strategic management tool.

DEDICATION

To Tia and my children, Olivia and Josh,

who sacrificed the most as I journeyed through the process.

To my mother, Pauline Wambuku Mwenja,

for her prayers, support, and endless love.

In memory of Ruth Jackson:

Teacher, mentor, and friend.

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INTRODUCTION

This research assesses the top management team (TMT) of the family business organization as a resource that creates value and the founder as the most important person in the family business. Prior research on the TMT has concentrated on the individual attributes of TMT members and TMT processes in an effort to understand group functions. Most research on the family business has concentrated on issues such as succession, generational differences, conflict, continuity, and other areas where various researchers have thought would fit the family business model. This research brings in mainstream strategy research and combines it with network and family business research to complement and extend the literature on TMT and introduce network research in family business. The founder plays a crucial role in the family business and this is an area of inquiry that has so far been largely ignored. The network perspective posits that the relationships that the TMT has with others inside and outside the family firm adds value to the organization.

The Research Problem

The use of social networks as a strategic management tool has gained in interest in the past few years. An examination of prior family business research and literature shows that very little, if any, attention has been paid to social networks in the family business and especially the concept of founder centrality. Most research in family businesses has concentrated on succession, conflict, financing, and other issues that researchers have considered to be unique to family business. In strategic management, environmental surveillance is of utmost importance if the firm is to avoid strategic surprises. The business environment is changing so rapidly that accurate information is difficult to obtain, and social networks have become increasingly good sources of such information.

The strategic significance of social networks regarding environmental surveillance, intra- and interorganizational information flow, organization decision making, and collaboration among the TMT members cannot be overestimated. The founder of the family business plays a key role in determining the strategic direction of the firm, puts together a TMT that shares his/her vision for the family business, creates an atmosphere that enables the team to work together, and encourages or discourages the formation of social networks both inside and outside the organization. Therefore, the founder is the most important person in the family business as he/she brings the family system and the business system together to form a corporate culture that guides the family business either into success or failure.

This research study was designed to determine the relationships among founder centrality, TMT internal and external networks, TMT behavior integration (TMTBI), and firm performance in family businesses. This chapter presents the background of the problem, the statement of the problem, the purpose of the study, the contribution of the study, and the definitions of terms.

Background of the Problem

This study was based on the premise that the founder is the most important person in the family business and the TMT is the most important group in that business. There is a large reservoir of information both inside and outside the firm that should be exploited to guide the firm's strategic direction. The utilization of the TMT members' knowledge, both learned and acquired through work experience, and interaction with others inside and outside the firm, can be possible only when there is an atmosphere of collaboration and a willingness to share information and make decisions jointly. This makes the study of TMT social networks and TMT behavior integration extremely important.

There were three important aspects of the background of the problem for the current study:

1. *Lack of enough prior research on the founder in the family business.* The found is the one person who sits at the apex of the organization's information flow in the family business and therefore the most important individual in the organization. There is a great need to understand the role that the founder plays in enabling the TMT to work together in a behaviorally integrated manner and to form social networks that enrich the family firm's pool of knowledge and resources.

2. *Lack of adequate prior research on the TMT's social networks and how the network structure may affect the collaborative behavior exhibited by the TMT and their willingness to share information and make decisions jointly.* There is a need for more research on the level of networking activities that adds value to the firm and especially to the formation of social capital. Large networks are costly to maintain but they provide more information. Smaller networks are not costly to maintain but the information is not as diverse. Therefore, there is a need for more research on TMT social networks in order to find a network balance (Ibarra, 1992) that adds more value to the organization.

3. *Lack of adequate prior research on TMTBI.* The feeling of teamness does not happen in a vacuum, and the presence of social networks that have different structural configurations have different effects on the way the TMT members behave toward each other. TMTBI has been looked at as a moderating variable in a few studies, and this treatment has shadowed it from deeper and more engaging conceptualizations where the antecedents of that feeling of teamness that brings about collaborative behavior, information sharing, and joint decision making are left in the dark.

Organizations often invest a great deal of money and effort in initiatives to enhance TMT collaboration and information and resource sharing. Therefore, it is important to study TMTBI in order to determine whether this investment is well placed. The ability of the TMT to facilitate cooperative processes, such as knowledge transfer and information sharing, through their boundary-spanning role, has become a critical source of competitive advantage in today's interconnected world. Therefore, a clear understanding of the roles played by the founder and the TMT's social networks is critical.

Statement of the Problem

According to Ansoff (1965), the balance of management attention to strategic and operating decisions is ultimately determined by the firm's environment. Social networks are a management tool that helps managers to gather the information needed for environmental surveillance. As the world becomes more and more interconnected, it is important to understand the value added by the contacts that each firm's TMT has inside and outside the firm and the role of the founder of the family business in determining the outlook of these networks. Prior and current research in family business has not paid enough attention to the role played by the founder in guiding the firm's strategic direction based on his/her structural position in the firm's social structure and the way in which this structural position affects the formation of the TMTs' social networks. Social network research is especially lacking in family business. Only one study (Kelly, Athanassiou, & Crittenden, 2000) has looked at the founder centrality effects on the family firms' strategic behavior and performance. A few studies (e.g., Michalisin, Karau, & Tangpong, 2004; Michel & Hambrick, 1992; Smith at al., 1994) have looked at collaboration at the TMT level.

A few studies that have looked at TMTBI include those by Anne Mooney (2000), who looked at the antecedents to conflict during decision making and the importance of behavioral integration; Li and Zhang (2002), who looked at founding team comprehension and behavioral integration in new technology ventures in China; and Simsek, Lubatkin, and Dino (2005), who looked at modeling the multilevel determinants of TMT behavior integration. Again, none of these studies was done on family businesses.

This is the first study to look at TMT social networks, founder centrality, and TMTBI in family businesses. As Finkelstein and Hambrick (1996) argued, the human element in strategic choice and firm performance is very important; therefore, the study of the founder and the TMT internal and external social networks is of utmost importance because their interaction with each other and others inside and outside the firm provides them with the tools to guide the strategic choices made by the firm. Firms have different organizational performance because of the varying degrees of the abundance of the human capital that each firm possesses and, as Hambrick and Mason (1984) pointed out, organizations are reflections of their TMTs. The study of such teams and how they utilize their internal and external networks adds to the understanding of the way in which the family business is ran and how the founder plays a role in making sure that the firm stays in the right strategic direction.

Purpose of the Study

The main motivation behind this study was the need to understand social networks in the family business. The study of social networks in the family business is unique because of the overlap of values from both the family and the business systems. This overlap is affected by the founder's level of centrality as he/she guides the firm's formation of a corporate culture unique to every family business. In family business, the level of internal and external connectedness is determined mostly by the family values that migrated into the business system. The study offers a unique opportunity to study this socially complex phenomenon.

The purpose of this study was to address the need in family business to understand the role played by the founder in determining the characteristics of the social networks formed by the family firm's TMT and the effects that these networks have in determining the level of behavioral integration present among the members of the TMT and the amount of social capital formed within the networks. The family system affects the business system through both cultural and power (through family domination of management, governance, and resource allocation) influences and these influences are looked at by using the new F-PEC (family power, experience, and culture) influences scale proposed by Klein, Astrachan, and Smyrnios (2005).

This study focuses on the founder in the family business as the most important individual in the firm. It is known from prior research (Schein, 1983b) that the founder plays a key role in the formation of the firm's corporate culture and that it is from this culture that TMT behaviors are molded. The way in which the members of the TMT react to the environment, relate to each other and others outside the organization, and formulate strategies to guide the organization depends on organizational culture, the influence of the founder, and the level of family power and culture influence. Family culture and power influences are absent in nonfamily businesses, and that makes this study unique.

Basing their argument on the social learning theory, Bandura (1986) and P. S. Davis and Harveston (2001) posited that, when the family is a closely knit social group, social interaction among members results in shared learning, understanding, and consensus that is greater than that found in groups that are more loosely connected. Therefore, the TMT becomes an important player in the determination of organizational outcomes. Since the TMT has the power to control the strategic direction of the firm, this makes it the most influential team in the firm as it strives to position the firm in a strategically competitive position. This study may enhance understanding of the role played by the founder and the TMT social networks and how they affect TMTBI and firm performance.

TMTBI enables the TMT to work together to exploit team member's unique abilities, share the information emanating from both the internal and external environments, and make joint decisions that enable them to make sound strategic decisions. The TMT strategic decision-making process evaluates the firm's current and future decisions based on the capabilities and resources of the firm and of the competitors. Therefore, the TMT's ability to conceive and implement strategies that improve firm efficiency and effectiveness is of utmost importance if the firm is to maintain a sustainable competitive advantage over the competition. Such actions are possible when there is a collaborative effort among the TMT members, a willingness to collect and share information from both the internal and external environments, and an atmosphere of teamness that promotes joint decision making.

Contributions of the Study

This study will make four major contributions.

1. The study examines the socially complex internal and external social networks and their effect on TMTBI and firm performance. TMT occupies a unique position in the organization, and this affects the flow of information within and without the organization. The distinct information capabilities created through internal and external TMT networks may provide a competitive advantage for the firm (Barney, 1991a). As Mintzberg (1973) pointed out, TMTs "are in a particularly favorable position to collect and manage information that enable organizations to act" (p. 73). It is therefore important for organizations to know what role the internal and external social networks play, as the primary sources of managerial information, in enhancing TMT collaboration, information and resource sharing, and joint decision making, and how these activities subsequently affect firm performance.

2. This study will contribute to the long-running debate in organization theory in which two arguments have been advanced concerning the question of which linkages—weak or strong—add more value to the firm. Granovetter (1973) argued that large and diverse networks of weak ties result in greater advantages for the actors because there are multiple and novel sources of information and a low dependency on any one contact. Therefore, *weak* ties, according to this view, add more value. On the other hand, *strong* ties are said to add more value due to the type and sensitivity of the information gathered through the networks (Krackhardt, 1992a, 1992b). Krackhardt pointed out that there is a cost associated with weak ties because the managers have to

invest their limited resources (in this case, time) to develop and maintain such relationships. He advanced the view of strong ties by arguing about the special benefits such as trust, transfer of proprietary and sensitive information, and influence that are possible through such ties. These two arguments are addressed in this research by looking at the strength of ties of the TMT social networks and their relationships to founder centrality and TMTBI.

3. Even though a great deal of research has been done on team TMT characteristics, very few studies have been done on the relationship between TMTBI and firm performance and, to this researcher's knowledge, no study has been done on TMT social networks and their relationship to TMTBI and firm performance. This study will contribute to understanding of how the presence of social networks affects TMTBI. This is especially true of the family business, since no other research has been on family business TMTBI.

4. Studying the founder within the context of the TMT can lead to understanding the relationships of the founder's structural position in the networks on the TMT's behavioral integration and how that relationship subsequently affects firm performance. Management can then make concerted efforts to institute strategies that enhance the formation of social networks and reward participation in such networks if they are found to enhance not only TMTBI but also firm performance. Since TMT networks are a source of new information that is highly useful, management is able to gather information that enhances the firm's competitive advantage.

Definition of Terms

This section offers conceptual definition of terms used in this study. Operational definitions are presented in chapter 3.

Centrality is the structural position within the network that is unique and central in the communications between actors in the network.

Family business is the business in which the family owns a significant part of the business and the family members are highly involved in the management and control of the business.

Founder is the person who founded the family business.

Founder centrality is the concept that defines the central position occupied by the founder in the network, where the other members of the network must go through the founder to communicate with others in the network. The members go to the founder for information and other resources more than they go to others in the network.

F-PEC is a scale that assesses the extent and the quality of family influence via the measurement of family power influence (FPI), experience, and culture influence.

Top management team (TMT) is the group of senior managers who aid the founder in deciding the strategic direction of the firm.

Top management team behavioral integration (TMTBI) is the extent to which the TMT members engage in mutual and collective interaction in which they share information, exhibit collaborative behavior, and make decisions jointly.

Top management team social networks are the sets of relationships that the TMT has with others inside or outside the organization.

Social Capital is the aggregate of resources embedded within, available through, and derived from a network of relationships possessed by an individual, a group, or an organization

Summary of the Chapter

Chapter 1 presented the research problem, background, the purpose of the study, the expected contributions of the research to the wider body of strategy and family business literature, and the definition of terms used in the paper. The research problem called for research in family business concerning the role played by the founder and the TMT social networks and their effects on the TMTBI and firm performance. Since no other study has been done where these three concepts are combined, this study raises important research questions about the concepts and sheds light on this area of inquiry, where not much attention has been paid.

The background of the problem provided the premise upon which the research is based. This premise posits that the founder is the most important figure in the family business and that the TMT is the most important group in the firm. A clear understanding of the how these two important groups of people interact and how the social interactions of the TMT, through social networks, are affected by the level of founder centrality and how these relationships subsequently affect TMTBI and firm performance is of interest to both practitioners and academics.

The current business literature provides a background through which terms are defined, research questions are asked, concepts and research variables are paired, and the relevant research models and hypotheses are formulated. The contribution from this research is expected not only to enrich the body of knowledge already available but also to guide firms in the allocation of resources to relationship and collaboration building activities. Such activities result in behavior integration among the TMT members and the creation of social networks that enhance management's decision-making capacity.

Chapter 2

REVIEW OF THE LITERATURE

This chapter presents a review of the literature relevant to the family, founder centrality, TMTs' social networks, and TMTBI and firm performance. Founders affect the formation, transmission, and embeddedness of firm culture, the way in which the TMT forms internal and external social networks, and the level of collaboration that exists among the TMT. The atmosphere that promotes the feeling of teamness depends on the influence of the founder on TMT behavior.

"Organizations need founders. But organizations cannot recruit them, because organizations construct them" (Aldrich, 1979, p. 77). Organizations must understand the role played by the founder as the single most important person in the firm. To investigate the extent to which founders influence the firms that they founded, this study looks at the founder, the TMT assembled by the founder, the social networks formed by this TMT, the level of behavior integration within the TMT, and how all of these affect firm performance. This study looks at social network theory as it relates to the founder and the TMT social networks, the resource-based view (RBV) as it relates to TMTBI as a strategic asset, and top management theory (upper echelon perspective) as it relates to the TMT.

Theoretical Framework

This study combines the RBV, the social network theory, and the upper echelon theory to bring together the founder, the TMT social networks, and TMTBI. The social network theory looks at the founder and the structural position that the founder occupies in the network (centrality) and the TMT's social networks. By looking at TMTBI as a strategic asset, the study connects social network theory to the RBV and enhances understanding of behavioral integration as a human resource activity that can be affected by the actions of the founder and the characteristics of the TMT social network.

The Resource-Based View

Understanding the sources of sustained competitive advantage has become an important area of research in strategic management (Porter, 1985; Rumelt, 1984). According to the RVB of the firm, resources and capabilities are the main drivers of sustained competitive advantage, especially those resources that are rare, valuable, difficult, and costly to imitate and are not substitutable (Barney, 1991b). Performance differences across firms can be attributed to variance in the firms' resources and capabilities. Amit and Schoemaker (1993) called such resources *strategic assets.* Since its inception by Wernerfelt (1984) and its subsequent development by Barney (1991b), RBV has received considerable attention in strategy literature. This is an indication that strategy researchers have been looking at RBV as an alternative to the explanation of why firms vary in performance. Even though empirical testing of RVB is still in its infancy, the model provides a clear logic that has important managerial implications. It gives managers a resource-based logic to ensure that they nurture and maintain those resources that are sources of a firm's strategic advantages (Barney, 2001). Nurturing and protecting these resources is important if the firm is to sustain its competitive advantage.

In his classic book *Organizations in Action* James Thompson (1967) described how the human variable affected organizational actions. Becker (1964) had earlier classified human capital as one of the firm's resources as characterized by experience, training, relationships, managerial insights, and so forth. Later, Hambrick and Mason (1984) pointed out that organizations are reflections of their top managers, who have an important impact on organizational outcomes because of the decisions that they are empowered to make for the organization. The TMT then becomes an important player in the determination of organizational outcomes. Daily, Certo, and Dalton (2000) looked at managers as a unique organizational resource. TMTBI is an important characteristic of this unique organizational resource (TMT) that is part of the human capital resources.

According to Barney (1991a) and Hitt, Bierman, Shimizu, and Kochlar (2001), intangible resources are more likely than tangible resources to produce a competitive advantage. Behavior integration is an intangible asset that is unique to each TMT and therefore a source of competitive advantage. *Behavioral integration* refers to the extent to which the TMT engages in mutual and collective interaction (Hambrick, 1994, 1998). This mutual and collective interaction has "three major elements: (a) quantity and quality of information exchange; (b) collaborative behavior, and (c) joint decision making" (Hambrick, 1994, p. 189). Those TMTs that are behaviorally integrated share information, resources, and decisions, thereby exhibiting a high degree of teamness. Firms employ both tangible and intangible resources to develop and implement their strategies. Since resources form the basis for firm strategies (Barney, 1991a) and these resources are critical in the implementation of those strategies, then firm resources and strategies interact to produce positive returns (Hitt at al.). TMTBI aids in the formulation and implementation of firm strategies that lead to increased efficiency and effectiveness as the TMT members collaborate, share information and resources, and make decisions jointly.

This study looks at TMTBI as a strategic asset as prescribed by the RBV of the firm. The RBV of the firm and the assertion that TMTBI possesses the characteristics of strategic assets are combined. Barney (1991b) noted that there are two basic assumptions to the RBV: (a) resources are distributed heterogeneously across firms, and (b) these productive resources cannot be transferred from firm to firm without cost. Given these two assumptions, Barney (1991b) made two arguments about the resources: (a) The resources are rare (i.e., not widely available) and valuable (i.e., contributes to the firm's efficiency and effectiveness); and (2) the resources are not imitable (i.e., not easily replicated by competitors), are not substitutable (i.e., same function cannot be fulfilled by other resources), and cannot be purchased in the resource market (i.e., not transferable). TMTBI possesses these characteristics of a strategic asset and as a socially complex construct that changes over time, it is important to understand how its presence or absence in a TMT relates to the performance of the firm.

So far, very little research has been done on the relationship between TMTBI and firm performance and no research has been done on the relationships among TMT social networks, the founder, and TMTBI. This study will contribute to the understanding of this socially complex intangible asset (TMTBI) that seems to meet the prescription of the RBV. It provides a good test for RBV's basic assumptions of resource heterogeneity and nontransferability and the characteristics of a strategic asset. It will also expand on the little research that has so far been done on the relationship between TMTBI and firm performance and shed light on the relationships among the founder, TMT social networks and TMTBI.

RBV-TMTBI as a Strategic Asset

The basic premise for the RBV is that resources are the main determinants of firm performance, based on the assumption that firms are a unique bundle of resources and that these resources are relatively immobile (Barney, 1991a). According to Barney (1991a), "Firm resources include all assets, capabilities, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (p. 101). Resources are classified into three categories: (a) physical capital resources (Williamson, 1975), (b) human capital resources (Becker, 1964), and (c) organizational capital resources (Tomer, 1987). For the purpose of this our study, TMTBI is examined as a part of the human capital resources. Daily et al. (2000) looked at managers as a unique organizational resource. This study examines the TMT as a unique or strategic organizational resource whose characteristics, such as behavior integration, guide the firm's strategic direction and positively affect firm performance. By sharing information, resources, and decision making, TMTBI becomes a strategic asset through which the firm can gain competitive advantage.

What is a strategic asset? *Strategic assets* are defined as internal strengths that the firm has developed over time (Pegels & Yang, 2000). Such internal strengths are not measured in financial terms but they are important sources and determinants of a firm's competitive advantage. The basis for strategic assets lies in the RBV of the firm as studied by researchers such as Barney (1989), Peteraf (1993), and Wernerfelt (1984). According to RBV, strategic assets are the critical determinants of a firm's ability to maintain a sustainable competitive advantage. These strategic assets are simultaneously rare, valuable, inimitable, and nonsubstitutable. The valuable assets, such as TMTBI, enable the firm to conceive of and implement strategies that improve the firm's effectiveness and efficiency. Using the information that the TMT gathers from the environment and sharing that information in a collaborative way to make informed joint decisions not only improves the quality of decisions but also leads to superior firm performance (Li & Zhang, 2002). The firm is therefore able to exploit opportunities and/or neutralize threats as it makes proper use of the information emanating from the TMT networks, both internal and external.

Rare and valuable resources contribute to the firm's competitive advantage. For a firm to enjoy sustained competitive advantage, it must implement strategies that are not simultaneously being implemented by its current or future competitors (Barney, McWilliams & Turk, 1989). TMTBI is a strategic asset unique to each firm and its presence is determined by the presence of unique TMT dynamics in each firm.

If the resource-based advantages can be imitated at a reasonable cost, then the advantage will be temporary. Resources that are rare, valuable, and not imitable are then a good source of sustained competitive advantage. Barney (1991b) and Dierickx and Cool (1989) identified four barriers that impede imitability.

1. Causal ambiguity: The link between resources controlled by the firm and sustained competitive advantage is ambiguous; therefore, which resources to imitate is uncertain. It is uncertain as to which aspects of TMTBI a firm can imitate from another firm unless the firm hires away the entire TMT of the firm that it seeks to imitate.

2. Social complexity: A complex social phenomenon, such as employee relationships, may be beyond the ability of firms to systematically manage and influence. TMTBI is a socially complex construct that would be difficult to imitate.

3. Unique historical conditions: The unique historical conditions are contexts in time that determine the relevant importance of resources (Michalisin et al., 2004). For example, a firm with a unique and valuable organizational culture that emerged in the early stages of a firm's history may have an imperfectly imitable advantage over firms founded in another period in time in which different (and most likely less valuable) organizational values and beliefs come to dominate (Barney, 1986; Zucker, 1987). TMTBI may have historical roots in an organization's culture and may be difficult to imitate, thereby making imitability by others difficult to achieve.

4. Path-dependent resources: Path-dependent resources, such as brand name recognition, are accumulated flows of stocks from strategic investments, such as advertising or marketing, and use of other firm resources, such as quality control systems, over long periods of time, that the competition cannot imitate (Michalisin et al., 2004). A firm may obtain rare and valuable resources because of its unique path through history, such as intellectual property rights, and it can exploit those resources by implementing strategies that competitors cannot imitate. TMTBI in each firm has a unique history that enables the TMT members to share information and resources and make decisions jointly. That is a characteristic that cannot be copied by others outside the firm because it involves human relations that would be difficult to duplicate.

According to Manville and Foote (1996), a firm's core competencies are based on the skills and experiences of the people who do the work. It is therefore imperative that firms find a way to tap into the TMT knowledge base to preserve and expand their core competencies (Bolinger & Smith, 2001). TMTBI enables the TMT members to work together to exploit team member's unique abilities, enabling them to make sound strategic decisions. Since tangible assets can be purchased in the market place, they cannot be considered as rare. Strategic assets, on the other hand, are generally not tangible in nature (Godfrey & Hill, 1995; Michalisin, Smith, & Kline, 1997). According to Michalisin et al. (2004), intangible assets are mostly unobservable and therefore difficult to imitate. Such assets are the driving force behind the firm's competitive advantage. TMTBI is such an asset, which simultaneously seems to possess all of the characteristics of a strategic asset.

TMTBI is important because of the complexity and the ambiguous nature of the work that TMT does. Prior research has shown that teams that perform well under uncertain and ambiguous conditions are highly coordinated and flexible (Eisenhardt, 1989; Eisenhardt & Bourgeois, 1988). "TMTs that work well together react faster, are more flexible, use superior problem solving techniques, and are more productive and efficient than less integrative teams" (Smith et al., 1994, p. 432).

Collaborative teams that share information and decisions are therefore more likely to produce the synergy necessary for superior firm performance (Katz & Kahn, 1978; Steiner, 1972). TMTBI may lead to better utilization of the TMT members' knowledge and connections, which results in higher-quality strategic decisions and subsequently higher firm performance.

The above arguments have established that TMTBI satisfies the RBV's strategic assets characteristics. TMTBI is rare and valuable, it is difficult to imitate, it varies across companies because each company's TMT is unique, it develops over time, it is socially complex, it is imperfectly substitutable because it evolves over time, and, as a social dynamic, it emerges as a function of the organizational culture. According to RBV, a resource that possesses these strategic asset characteristics should lead to higher firm performance. Such assets guide the firm in strategy conception and implementation and an improvement in the firm's efficiency and effectiveness. TMTBI possesses all of these strategic asset characteristics and it should therefore lead to improved firm efficiency and effectiveness that should translate into higher firm performance.

To the researcher's knowledge, this is the first study to look at TMTBI in family business as a dependent variable. This is especially important because the family dynamics in the family business almost dictate higher levels of loyalty to the founder of the family business. Therefore, a study of the TMTBI as it relates to founder centrality will shed light on how this strategic asset relates to the most important individual in the family business: the founder.

Examining the TMT social networks can lead to understanding how various characteristics of these networks affect the level of TMTBI and show the relationships between network characteristics and various levels of TMTBI. This strategic asset (TMTBI) is a result of deliberate human resource practices by the founder and the TMT; studying it can lead to understanding of the way in which different family firms achieve different levels of competitive advantage or lack thereof as a result of the strategic behaviors that the founder encourages within the TMT and, indeed, throughout the organization.

When TMT members engage in information gathering and exchange from within the networks, they add value to the family firm. The value added in this case would be the quality of the information gathered from the contacts and the willingness to share that information among the TMT members, and the accumulation of social capital. When such an atmosphere exists, there is collaborative behavior and a feeling of teamness that promotes joint decision making. Such behavior cannot happen in a vacuum; the founder must encourage collaborative behaviors, sharing of information and resources, and relationship building activities. The very nature of the founder's actions in encouraging such behaviors helps in the building and accumulation of this strategic asset (TMTBI), which is mostly a competitive advantage unique to each firm. This is especially true for family businesses, where the power and influence of the founder are much more pronounced as the founder mixes family values and business values to form the firm's corporate culture.

Family Business

Family-owned businesses comprise 80-90% of companies in the United States (Kaslow, 1993; Kets de Vries, 1993; McClendon & Kadis, 1991). They contribute a significant portion of the gross domestic production (GDP) and employment in the United States, Canada, and Mexico (Labbe, 1994; Morgan, 1994; Shanker & Astrachan, 1996). Although family businesses range in size from very small to very large multinational corporations, the majority of American businesses are small (Kirchhoff & Kirchhoff, 1987; Shanker & Astrachan). In many countries, family businesses contribute a substantial amount to their gross national production. In the United States it is estimated that about 40% of the GDP comes from family-owned businesses (Kets de Vries, 1993; Rosenbalt, de Mik, Anderson, & Johnson, 1985). It is evident that family businesses play a major role in most countries' economic development, yet very little management research, especially on strategy, has been done on family businesses.

Some of the research in family business has addressed succession (Aronoff & Ward, 1997), family firm and community culture (Astrachan, 1988), transfer of wealth and power (Churchill & Hatten, 1987), potential of family business (Davis, T. R., 1984), and role of cultural patterns in family business (Hall, Melin, & Nordqvist, 2001). These researchers have examined various aspects of the family business and others have built on those findings to examine the differences between family firms and nonfamily firms.

Researchers have various ideas of how family and nonfamily businesses differ. Some see family businesses as having a competitive advantage over other types of businesses because of family virtues, such as pride, loyalty, trust, and commitment (Benson, Crego, & Drucker, 1990; Dyer, W. G., & Handler, 1994; Harris, Martinez, & Ward, 1994; Ward, 1987). Others think that family businesses are more conservative, inward looking, and secretive than other types (Donckels & Frohlich, 1991; Donckels & Lambrecht, 1999). Still other researchers contend that family businesses are more future oriented and concerned with succession planning than are other types of businesses (Churchill & Hatten, 1987; Dreux, 1990; Porter, 1992) and therefore such firms tend to have a long-term commitment horizon (Harris et al.).

On the other hand, other researchers have contended that there is no significant difference between family businesses and other types of businesses (Daily & Thompson, 1994). While some of these arguments seem contradictory, Westhead and Cowling (1998) argued that most of the differences that researchers find are attributable to demographic considerations and are not real differences.

The study of family business has also drawn interest from researchers who have looked at family business and the characteristics that they exhibit (Donckels & Frohlich, 1991; Donnelly, 1964; Dreux, 1990; Porter, 1992; Ward, 1987). A argument that is relevant to this study was presented by McCrea (1997), who suggested that family businesses tend to maintain the values, visions, and missions laid out by the founders. Such an argument follows Schein's (1983b) observation that the founder's cultural embedding mechanisms let the managers and others in the firm know (a) what the founder pays attention to; (b) what is reward and given status; (c) the criteria by which the founder recruits, selects, promotes, retires, and excommunicates; (d) how the founder reacts to critical incidents and organizational crises; and (e) how the founder models, coaches and teaches. This process leads to organization culture formation that is based on the founder's values and beliefs.

Family businesses are also said to be inward looking while non-family-owned are said to be outward looking. From a strategic management point of view, inward-looking firms may fail to recognize changes taking place in the environment that may call for changes in the firm's functional and management capabilities, changes in the firm's strategic orientation to address challenges emanating from the environment, and changes in the firm's alignment of the responsiveness of the current management capability to the firm's strategic aggressiveness. Such a strategic orientation would lead to strategic myopia that would leave the firm vulnerable to strategic surprises.

Inward-looking firms are fit for low-turbulence, stable environments. However, if the firm is in a dynamic business environment, then the TMT must be diverse and outward looking if the firm is to achieve superior financial performance (Eisenhardt & Bourgeois, 1988; D'Aveni, 1990; Eisenhardt, 1989). If the founder is inward looking, then high founder centrality would suggest an inward-looking strategic orientation. Outward-looking firms would be expected to have larger and more diverse TMT social networks, and the founders of such firms would be expected to be outward looking.

While the characteristics and distinctions of these studies are wide ranging, very few have looked at founder and TMT social networks effects and the role that they play in charting the strategic path and performance of family business and how they affect TMT behavior as it relates to collaboration, information sharing, and joint decision making. From a strategic management perspective, the founder is probably the most important person in the business because of the position that he/she occupies. The founder plays a key role in determining the firm's culture, vision, mission, goals, strategic posture and behavior, as well as the composition and outlook of the TMT. The TMT refers to those individuals in the firm's management team that decide on the large and strategic issues facing the firm. They interact with both the internal and external environments. The founder brings in the dichotomous relationship of the family system and the business system. Maintaining the balance between those two systems is a challenge for both the founder and the firm's TMT. The overlap between the business and family systems (Davis, T. R., 1984) calls for a better understanding of the role played by those involved in the running of the family business: the founder and the other family members in the TMT.

The F-PEC Scale

Klein et al. (2005) used the F-PEC Scale of Family Influence to address the "familiness" of a family firm along a continuum ranging from *intensive family involvement* to *no family at all.* The scale uses three subscales:

> (a) *power,* which refers to the dominance exercised by the family through financing the business (e.g. shares held by the family) and through leading and/ or controlling the business through management and\governance participation by the family. The power subscale measures the proportion of shares, percentage of top management positions, and the proportion of board seats held by the family; (b) *experience,* which refers to the summed experience that the family brings into the business and is operationalized by the generation in charge of management and ownership (the more generations the more opportunity for relevant family memory); and (c) *culture,* which refers to values and commitment and employs the Family Business Commitment Questionnaire (Calrock & Ward, 2001). (p. 323)

Any of these three F-PEC subscales could act as an independent, dependent, moderating, or intervening variable in different research settings.

Bringing in the F-PEC to the discussion of family business shows the effects that family influence has on various aspects of the family business. The degree of family influence construct can guide family business research away from the simple dichotomous concepts of family and nonfamily businesses. Of the three subscales of the F-PEC, *power* and *culture* influence seemed to be the most appropriate for this study. As Cliff and Jennings (2005) pointed out, the power influence subscale seems to be the strongest of the three because it taps family influence via ownership, management, and governance. The *culture* subscale seems to have less face validity, as some items in the scale do not seem to tap the overlap between family values and business values.

While the scale appears well suited for the study of familiness in family business, it is a weak tool to gauge the overall familiness of the family business because there is no way of combining the three scales to give one grand score of familiness. However, it is useful in gauging the levels of family power and culture influence. This study makes use of both, as explained in the discussion below on founder and firm culture.

There is a need for clear and distinct criteria for distinguishing what constitutes family business from other types of business. Researchers have attempted to establish distinct classifications between family businesses, entrepreneurships, owner-managed businesses, and professionally managed businesses (Carland, Hoy, Boulton, & Carland, 1984; Daily & Dalton, 1992; Daily & Dollinger, 1992; Daily & Thompson, 1994). However, they have failed established a distinct definition or classification of a family business. Wortman (1995) noted that there are more than 20 definitions of family business, with little commonality among them. The reason behind this is that researchers tend to define family business based on the study that they are conducting, which results in numerous definitions.

For the purpose of this research, *family business* is defined as a business in which the family owns a significant part of the business and the family members are highly involved in the management and control of the business. This definition uses the FPI on the F-PEC scale (Klein et al., 2005) as the gauge for familiness of the family business. The *power* subscale in F-PEC serves as the most important gauge of the extent to which the family can assert control on the business. This subscale uses the proportion of the shares held by the family, the percentage of TMT positions held by family members, and the proportion of board seats held by family members. Such a scale assists in gauging the level of financing, control, and governance that the family has and thus the level of familiness present in the firm. In such a business the family has significant input into the firm's strategic direction through the provision of strategic resources and management and control dominance as they finance, manage, and control the firm.

In order to understand the influence that the founder has in the family business, this study builds a conceptual framework that uses concepts of founder centrality, first proposed by Kelly et al. (2000), and TMT social networks to look at how the founder and the TMT influence TMTBI and performance. The research uses the social network perspective to study the TMT social networks, social capital, and the structural position that the founder occupies in that network. Literature reporting studies on the founder (e.g., Schein, 1983b, 1985) shows that the founder highly influences the business because of the role that he/she plays in forming organizational culture because his/her beliefs, norms, and underlying basic assumptions come to define the root metaphors that eventually define the firm.

The founder must maintain a balance between responsibility to the family and responsibility to the business (Frieswick, 1996; Gersick, Davis, McCollom, & Lansberg, 1997). The emotional bond between family members may become the primary driving force in the firm's organizational life; therefore, the founder and the TMT should balance between these dichotomous lives or systems of family and business. This internal integration of the two systems and the need for growth and survival, as the firm adapts to the external environment, makes the founder even more important as a source, creator, or destroyer of culture in the business. The TMT, through external networks, collects valuable strategic information from the environment that can be used to enhance the firm's competitive position. It is therefore imperative to look at the role of the founder in the family business because the founder is the only person who has the power and the influence to determine the strategic direction that the family business will take.

Founder's Role in Family Business

It is clear from the previous discussion that the founder will determine the strategic direction the family firm will take. While the distinctions among strategic process, formulation and implementation of strategy, strategic content, and the decisions regarding strategic direction have been adequately addressed by early strategy theorists (Ansoff, 1965; Chandler, 1962; Schendel & Hofer, 1979), it is important to note that strategy affects the firm's performance and, as Ansoff and McDonnell (1990) noted, the failure of a firm to match a firm's strategic aggressiveness to the environmental turbulence level will lead to suboptimal performance. The ambitions and drive of the founder and TMT, coupled with the strategic resources available, will determine the goals and objectives that the firm sets.

In strategic management the TMT tries to align the firm's strategy, functional, and management capability with the level of environmental turbulence. There is a range of effective strategies that a firm can adopt, but the extent of the firm's strategic aggressiveness in realigning its posture will depend on its cultural orientation, which is formed and transmitted by the founder. The TMT's strategic orientation must therefore be congruent with that of the founder; a mismatch would lead to surveillance, competitive, and diversification gaps, which would have to be closed in order to align the strategy with the environment and the firm's goals and objectives.

Various researchers have various ideas on how family and nonfamily businesses differ. Some see family businesses as having a competitive advantage over other types of businesses because of family virtues, such as pride, loyalty, trust, and commitment (Benson et al., 1990; Dyer, W. G., & Handler, 1994; Harris et al., 1994; Ward, 1987). Others think that family businesses are more conservative, inward looking, and secretive than other types (Donckels & Frohlich, 1991; Donckels & Lambrecht, 1999). Other researchers believe that family businesses are more future oriented and concerned with succession planning than are other types of businesses (Churchill & Hatten, 1987; Dreux, 1990; Porter, 1992) and that such firms tend to have a long-term commitment horizon (Harris et al.).

McCrea (1997) suggested that family businesses tend to support the values, visions, and missions laid out by the founders. Such an argument follows Schein's (1983a) observation that the founder's cultural embedding mechanisms let the managers and others in the firm know (a) what the founder pays attention to; (b) what is reward and given status; (c) the criteria by which the founder recruits, selects, promotes, retires, and excommunicates; (d) how the founder reacts to critical incidents and organizational crises; and (e) how the founder models, coaches and teaches. This process leads to organization culture formation that is based on the founder's values and beliefs and fits the argument advanced in this study that the founder is the most important individual in the family firm.

As Kelly et al. (2000) point out, the extent to which managers understand the founder's strategic intent and beliefs regarding the commitment to the strategic intent will depend on how the founder initiated and guided the strategy process in the firm. This point is amplified by Schein's (1983a) cultural embedding mechanisms, mentioned earlier. The founders have significant influence on the firm's initial embryonic stage of development, its growth and maturity, and the maintenance and furtherance of the firm's culture, vision, and long-term survival. Because the founder has such a profound influence on the shape of the TMT, the culture of the firm, the strategic direction of the family firm, and the structure and systems adopted by the firm, this study links research that others have done on the influence that the family has on the family business with the concepts of founder centrality, TMT social networks, and TMTBI.

Other researchers who have looked at family business from the family influence perspective, where the influence of the family determines the familiness of the family business and thus the level of influence of the family on the firm, include Ensley, Pearson, and Amason (2005), who looked at the behavioral dynamics of the TMTs and their effects on cohesion, conflict, potency, and consensus among the TMT members. As noted earlier, Klein et al. (2005) looked at the familiness of the family business through the use of the F-PEC scale.

This study will enhance this understanding by looking at the founder and the TMT social networks and their influence on the TMTBI and their effect on firm performance. The level of founder centrality will be higher if the FPI is high because the family has too much control in terms of management, financing, and governance, thereby making the founder the focal point for the communication between those running the organization.

From the previous discussion it is evident that the founder has a great deal to do with the success or failure of the firm. The firm's performance will depend on its strategic orientation, firm culture, TMT perceptions, and how well the TMT is able to work together and utilize the information emanating from both internal and external social networks. Based on this position, the following hypotheses were developed. Figure 1 depicts the relationship captured in these hypotheses.

H1. *Founder centrality will be positively related to TMTBI.*

H2. *The level of FPI will be positively associated with the level of founder centrality.*

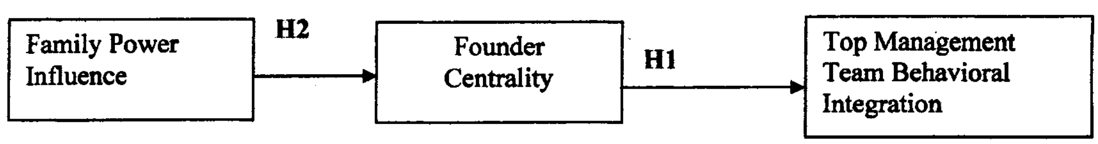

Figure 1. Founder centrality, family power influence, and top management team behavior integration.

While the average life expectancy of a family business is 24 years (Beckhard & Dyer, 1983; Kets de Vries, 1993; McClendon & Kadis, 1991), it is evident from the wide array of successful family businesses today that the life expectancy of family business continues to increase, especially for those businesses whose founders were able to match their strategic posture with the demands of the environment. Some of these successful companies that started as small family businesses in which the founders were the visionaries are Wal-Mart, Walt Disney, Ford Motor Company, Toyota, and Mitsushita.

The ability of the founder and the TMT to balance the family's internal focus with the firm's external focus and adaptation is the major determinant as to whether the business will succeed or fail. This is what Schein (1983a) called *external survival* and *internal integration problems* in which the founder has to play a major part. Inability to balance the two leaves the firm vulnerable to strategic surprises, internal disharmony, and a general disconnect between the firm's strategic aggressiveness and the level of environmental turbulence. It can be concluded that the founder is the one person in the family firm that determines the success or failure of the firm; therefore, it is imperative to understand the founder's role.

Founder and Firm Culture

The founder culture-embedding mechanism helps the founder to embed and transmit culture in and throughout the firm. By paying attention to, measuring, and controlling those things that the founder considers important, the founder transmits to the TMT and the rest of the organization what it is that he/she is looking for and what they should be paying attention to. It is known from literature (Harvey & Evans, 1994; Kets de Vries, 1996; Schein, 1983a; Ward, 1990) that, during culture formation, corporate culture of the family business is highly influenced by the personality, values, and beliefs of the founding generation. As the culture evolves, the founder's values, beliefs, desires, aspirations, and perceptions become a part of the organizational life

It is known that employees, including the TMT, pay attention to those things that the founder pays attention to, whether they involve hiring, promotion, firing, role modeling, teaching, allocation of resources, the founder's way of handling crisis, decision making, or strategy formulation and implementation processes. All of these areas are of interest to strategic researchers and managers because they form the basis for the firm's strategic posture, vision, behavior, and choice. It is imperative that the culture formation, embedding, and transmission processes be understood by the managers, founders, and researchers in order to understand the firm's strategic orientation and the ability of the firm to respond to and manage change.

As Denison, Lief, and Ward (2004) argued, large family businesses frequently fail to recognize the business's greatest strength: the ability to retain connectedness to the past and simultaneously adapt and live the founder's vision. This is an asset that family firms have not exploited and, as Denison et al. argued, looking inward for competitive advantage and organizational coherence would be the most logical thing to do during times of economic contraction and when competitive market variables have been fully addressed and optimized. This researcher agrees with the notion that family firms should always (as most of them do) ask themselves, "What would mom or dad (founders) do when faced with a situation like this?" Schein (1985) suggested an evolutionary view of culture in which the founder's values and belief system not only act as an anchor but also incorporate new learnings over time as the organization interacts with the world at large. This argument amplified an earlier argument by Hofstede (1980) and Peters and Waterman (1992) that organizations can and do have personalities and characteristics. Such characteristics and personalities are guided by the founder, and Peters and Waterman viewed this as an asset that can be harnessed for competitive advantage. As Denison et al. argued, the "differentiating factor in family business lies in the fact that the behavior of family businesses emanates not from external pressure but from a deeply ingrained, learned-at-the dinner-table sense of history" (p. 64). This statement is true to the letter because the founder instills these values and beliefs at the confluence of the family and business systems, where the two join into one to form the corporate culture of the family firm.

Since most of the firm's culture is a reflection of the founder's values, beliefs, and aspirations, the culture subscale can be used to measure the level of founder influence in the formation of the firm's culture and the extent of diffusion of these cultural norms to the rest of the organization. Most of the values rooted in the organizational culture of a family business are formed through the influence of the founding generation. This research will use the culture family influence (borrowed from the F-PEC scale by Klein et al. (2005) and discussed earlier in the family business section of this chapter) to investigate the relationship between founder centrality and TMTBI because the level of information and resource sharing, collaboration, and joint decision making will be determined by the founder's attention to such practices and other human resource and strategy-making policies, procedures, and behaviors that the founder encourages. The presence of the founder and the founder's influence on the formation of the firm's culture brings together the family and business systems as the founder transfers family values to the family business. The level of family influence on the firm will also determine the level of founder centrality because the founder brings in the family cultural dimension to the business. The following hypothesis was developed on the basis of the above arguments. Figure 2 depicts the relationship captured in this hypothesis.

H3. *Family culture influence (FCI) will be positively associated with founder centrality.*

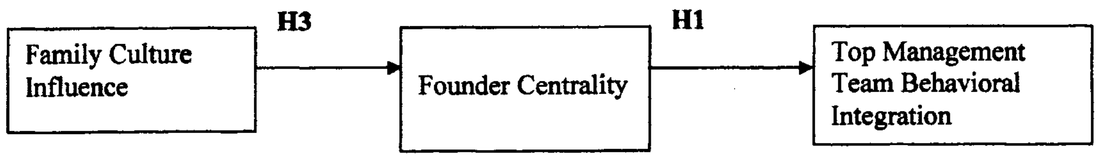

Figure 2. Founder centrality, family culture influence, and top management team behavior integration.

The founder with a high degree of centrality will control the flow of information and set the tone for the discourse at the top management level. This enables the founder and TMT to be on the same wave length; thus, the way in which they perceive the firm's culture and strategic posture should be the same.

The high degree centrality founder has control over the firm's processes and, since the TMT members have little or no ability to influence the firm's culture, their cultural outlook should correspond to that of the founder. Most family businesses in which the TMT fails to perceive the firm's culture in the same way as the founder do so because of their failure to buy into the founder's vision and cultural orientation.

When the founder has connections to the members of the TMT members who are influential, the founder can use those connections of the well connected to infuse, embed, and transmit those cultural norms and beliefs that the founder values and thereby bring the TMT and the whole organization into conformity with the founder's values and perceptions.

Although such a position is wonderful to occupy because of the power and influence that comes with it, it is also dangerous if the founder's strategic outlook becomes myopic. That is why it is imperative that the founder and the TMT understand the enormity of the consequences that comes with such power.

The Social Network Theory

The social network perspective assumes that actors (individuals, groups, or organizations, rational or political) are embedded in a web (network) of actors (Brass, 2003). According to Valente (1995), "A network is the pattern of friendship, advice, communication, or support that exists among members of a social system" (p. 31). So it can be said that a social network is a pattern of choices made by actors either to connect or not to connect with others based on some criterion (Homans, 1986; Moreno, 1941; Moreno & Jennings, 1938). The actor's network then becomes the social structure in which he/she is embedded and, depending on how close the relationship, its strength can be categorized as weak or strong (Granovetter, 1973). This social embeddedness matters in organizations because firms do not always have to own resources to reap the benefits from exploiting them (Dierickx & Cool, 1989; Pfeffer & Salancik, 1978; Sanchez, Heene, & Thomas, 1996).

Firms access valuable resources from the social networks within which they operate. Therefore, the study of the founder and the TMT social networks is an important addition to the body of knowledge on the role of social networks in accruing competitive advantage to the firm. This is especially true of external networks, which have become increasingly important to all firms as the environment continues to grow more competitive (Gulati, Nohria, & Zaheer, 2000). Firms look to external networks to obtain important information that will help them to solve novel challenging problems. This reservoir of information can be harvested only by the existence of external networks that the firm's TMT members use as they conduct environmental surveillance. Indeed, as the scale of technological change has increased, there is a greater need for firms to become partners with other organizations to gain resources: in this case, information that they need to compete (D'Aveni, 1994).

Network analysis explains the pattern of communication among the actors in these networks by determining who has a relationship with whom (Valente, 1995). These networks, either formal or informal, enable the TMT members to understand the environment outside the firm, either the competitive environment or the opportunity recognition and exploitation environment. Such information is valuable for the firm to maintain a sustainable competitive environment. These networks also provide valuable opportunities for the firm and the management team to learn new capabilities (Dussauge, Garrette, & Mitchell, 2000; Hitt, Dacin, Levitas, Arregle, & Borza, 2000).

Firms can compete in the marketplace through alliances, without owning all resources needed to enable them to enter such markets. Such a scenario is particularly important for new ventures and small- and medium-size firms who have limited resources (Cooper, 2001; Dubini & Aldrich, 1991; Starr & MacMillan, 1990). This is particularly so for family businesses because most of them have limited resources.

Kogut (2000) argued that the most important resource of networks may not be in the direct bilateral ties but in participation in a network that provides access to resources and knowledge deriving from the firm's network ties. This argument matches the contention of this study that the presence of TMT social networks provides the family firm with access to resources and knowledge available within and throughout the network, which in return enhances the competitive position of the family firm. This enhances the firm's capabilities, thereby resulting in a positive relationship to firm performance. But such exploitation of firm and management capability would not be optimized if the firm lacks internal and external collaboration and a feeling of teamness within the TMT; therefore, the level of TMTBI is important. Founders in the family business should encourage relationship-forming behavior among TMT members to take advantage of such benefits that emanate from social networks.

The TMT social networks may differ in a variety of ways. Some TMT social networks may be large and, as Kotter (1982) suggested, the typical upper-level executive may have a network consisting of thousands of people. Other TMT networks may be small but comprised of stronger linkages. Others may vary in terms of diversity of ties. In this case, some TMTs may be linked to many sorts of actors, while others are linked to a narrower set of actors. The TMTs of some organizations may decide to focus their relationships with external actors, while others may choose to have stronger links to those in the firm. The nature of network ties to actors inside the organization appears to be one of the most important components of the TMT social network and, as such, a principle determinant of TMTBI. Characteristics of social networks are discussed in detail in the TMT social network section.

Founder Centrality

As Kelly at al. (2000) argued, the nature of the founder's role in the family firm's strategy and decision-making processes can be viewed in terms of how central the founder is among the firm's TMT. Family-run businesses usually revolve around the founder as the central figure in the business. Such organizations also tend to be characterized by centralized decision making (Dyer, W. G., 1986), and the founder is the one person who is central to all decisions made at the firm. Most founders are revered and often held as heroes by other family members, which leads to an accumulation of power and prestige for the founder. Those who are close to him/her often enjoy the privilege of being a part of the group that charts the firm's strategic direction.

The TMT in the family business can be looked at as a social network that may include family members and other managers hired by the founder. Here, the culture-embedding mechanisms come into play because the founder hires and promotes those that he/she feels shares the same vision, values, and commitment to the firm. The founder then occupies a structural position within this network that is unique and central in the communications and decision-making process, and this structural position defines the *founder centrality* in the network (Kelly at al., 2000). As Kelly at al. put it, the founder is central in the communications and decision processes and *founder centrality* exists when members of the family business TMT network always seek advice or approval from the founder before making decisions of strategic importance. As Friedkin and Slater (1994) argued, the interpersonal influence that the individual (in this case the founder) has in the network stems, in great part, from the centrality of the individual (the founder). The founder occupies a unique position in the network where he/she controls the flow of strategic information between and among the members of the TMT.

The concept of centrality emphasizes that power is inherently relational. An individual does not have power in the abstract; rather, he/she has power because he/she dominates others in the network. Since power is a consequence of patterns of relations, the amount of power in social structures differs according to relational patterns in social structures. Those in favored positions may extract favors, bargains, and deference from those in less-favored positions. They tend to be centers of attention. They face fewer constraints and have more opportunities.

The structural position's power is determined by the number of connections that an individual or actor within the network has with other actors. The more ties an individual has within the network, the more power that individual has. Those who have many ties have more opportunities because they have more choices, which makes them less dependent on any specific other and hence more powerful. Such individuals have access to and are able to call on more resources of the whole network and often broker deals with actors in the network. The most effective way to measure the actor's centrality is his or her degree of centrality.

Degree of Centrality

According to Wasserman and Faust (1999), the simplest definition of *actor centrality* is that the central actor must be the most active in the sense that he/she has the most ties to other actors in the network. Such an actor should have the most activity, which is measured by degree. Those actors with a high degree of ties are the most visible, have direct contacts with many others (Wasserman & Faust), and are recognized by others in the network as the place "where the action is." By default, they accumulate an immense amount of power due to their position in the network. The actor is a crucial cog in the network, occupies a central location in the network, and is a major channel in relational information. Since such actors are less dependent on others in the network, then a high degree of centrality indicates more power and therefore more influence on the rest of the network. Most of the actors in the network have to come through the high-degree centrality actor, either for connection to others in the network who are not adjacent to them or to get information from the central figure. The low-degree actors are in the peripheral and therefore not active in the relational process.

There are two measures of degree centrality: Freeman's (1979) approach and Bonacich's (1972) approach. They are equally applicable, and researchers choose the approach that fits their research interests. Freeman used the in-degrees (connections coming in) and out-degrees (connections going out) to determine which actor in a network has more degrees. Those with more connections have more power and influence than those with fewer connections, regardless of who is sending or receiving information. Bonacich's approach was proposed as a modification of the original degree centrality approach. This approach has been found to be a superior measure of centrality when compared to the original one. The Freeman approach argued that the actors who have more connections are most likely to have more power because they can have direct effect on others in the network. The question then was whether those actors who have the same degree also have the same level of power and influence. Bonacich's approach argued that those who are central should also be connected to those others who themselves are also central and therefore their influence can easily reach those others who are connected to the central others and to those others who are themselves not well connected. This approach takes into account the connections of the actor's connections in addition to the actor's own connections; it is a much more useful approach for the concept of founder centrality. This study uses the Bonacich approach because the managers who go to the founder for advice and information also go to other managers for advice and information.

Founders in family business occupy central positions in the firm's internal social networks and are therefore very powerful. They are indeed the power brokers; they control the resources; they hire, fire, and promote; and they generally decide the strategic direction that the firm will take. That is why it is imperative to understand this role to understand the part that they play in the firm's strategy-making process. The power that the founders hold is both systemic (macro) and relational (micro) in that they have control over the whole firm and the relations among the members of the TMT. This fact alone is key to this study because the level of founder centrality will determine the size, range, and strength of ties of the social networks formed by the TMT members. The types of social networks formed by the TMT in a family business are a reflection of the founder's level of centrality because the need to gather information and resources from other sources and to seek advice from other sources will depend on how powerful and central the founder is. The researcher's personal experience in family business has been that founders are held in such high regard and are revered so much that, before a manager goes out to seek information or advice, he/she checks with the founder first. Such reverence affects the types of networks that TMT members make and the characteristics of such networks depend on the level of founder centrality.

The importance of information gathering for the TMT suggests that external networks are extremely important. Information theory (Galbraith, 1973; Tushman & Nadler, 1978) suggests that the ability of the firm to gather, process, and distribute information lessens the uncertainty facing the organization, resulting in better performance through better decision making and implementation. The TMT networks play a major role in the gathering of the diverse information needed by the TMT. The level of founder centrality will determine the extent to which the TMT members seek advice from the founder on important matters that affect the strategic direction of the family firm.

The founder's centrality level will influence the size and the range of the TMT networks. If he/she has high centrality, then the size and the range of the networks is bound to be small and narrow, as the TMT members might not feel the need to connect with many and different others inside or outside the firm because they can always go to the founder for information. Therefore, an inverse relationship between founder centrality and the size and range of the TMT social networks is expected. High centrality levels would mean that the TMT members go to the founder most of the time for either advice or direction on important strategic issues.

It is important to understand this relationship because the extent to which the TMT depends on the founder for information, guidance, advice, and direction will also determine strategic orientation. The family business literature makes it clear that family businesses tend to be inward looking and therefore prone to strategic surprises.

Founder centrality will also affect the strength of ties in the TMT networks. Since most of the information has to pass through the founder and the size of the network is small and the range is narrow, then TMT network ties will be stronger because the TMT members will have enough time to communicate among themselves and share the information that they get from their respective ties. The level of founder centrality will then be positively related to network strength of ties. This is especially true in the internal social networks in which the founder has extensive control of both information and resources. When the founder is central, the TMT members feel the need to share information and find ways to act together to counteract the founder's hold on resources. This is especially true in family businesses in which the founder tends to wield more power because of the family influence and control of resources and his/her influence in the formation to corporate culture. Therefore, the founder's level of centrality will affect the characteristics (size, range, and strength of ties) of the social networks formed by the TMT members. These characteristics are discussed in detail in the TMT social networks section below.

Given these arguments, the following hypotheses were developed to investigate these relationships. Figure 3 depicts the relationships stated in the above hypotheses.

H4a. *There will be an inverse relationship between founder centrality and TMT internal social network size.*

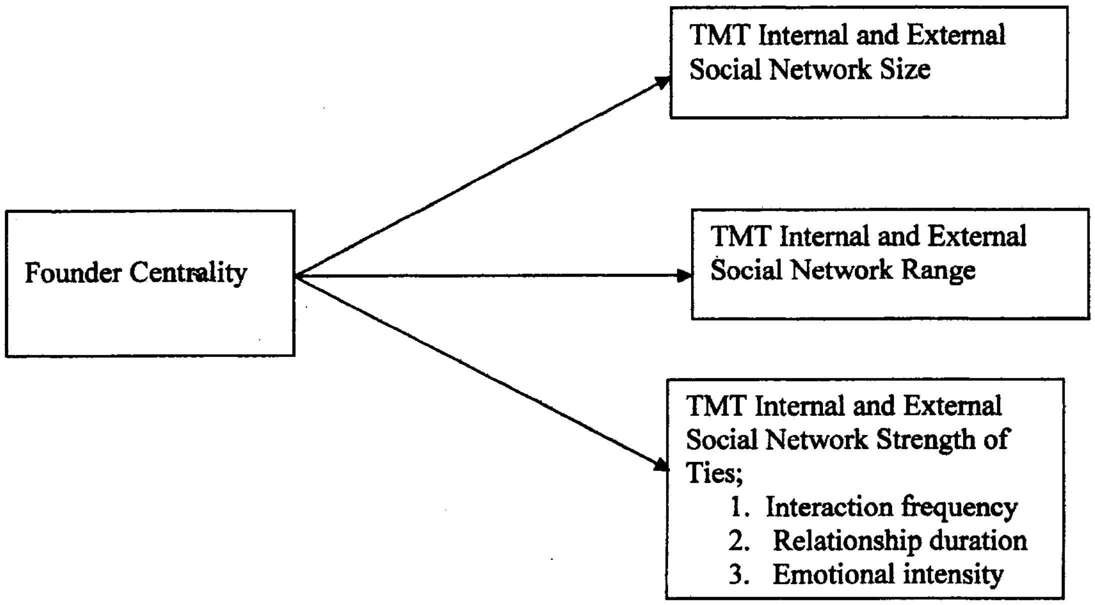

Figure 3. Founder centrality and top management team (TMT) internal and external networks.

H4b. *There will be an inverse relationship between founder centrality and TMT internal social network range.*

H4c. *There will be a positive relationship between founder centrality and TMT internal social network strength of ties.*

H5a. *There will be an inverse relationship between founder centrality and TMT external social network size.*

H5b. *There will be an inverse relationship between founder centrality and TMT external social network range.*

H5c. *There will be a positive relationship between founder centrality and TMT external social network strength of ties.*

TMT Social Networks

Nohria and Eccles (1992) stated that the organization does not operate in a vacuum; rather, there is a world "out there" and this world affects and is affected by the actions taken by the firm. The linkages that TMTs have with the environment around them defines the quality and quantity of information that the teams will have at their disposal in making strategic decisions that affect the future of the firm. The network perspective incorporates the environment as a set of linkages between the firm and various actors in the environment with which it operates.

> The variations in the actions of actors (and the success or failure of these actions) can better be explained by knowing the position of actors relative to others in various networks of relationships, than by knowing how their attributes differ from one another. (p. 6)

The TMT is the principle player in the boundary spinning mechanism for the organization (Mintzberg, 1973). The members should have access to information about the environment in which they operate. This information emanates from the social networks and enables TMT members to fulfill that role. The presence of the founder greatly influences the TMT members' propensity to seek linkages within and without the organization. The level of his/her centrality will determine the amount of information shared and the nature of the linkages within these networks. In the every-day language of the organization, "Who you know and how you know them will greatly impact what you know and how you utilize what you know."

Social networks are defined as the "sets of relationships top managers have with others in their own organizations (internal networks) and with individuals outside of the organization (external networks) who hold information of potential value to the firm" (Collins & Clark, 2003, p. 741). Valente (1995) defined networks as "a pattern of friendship, advice, communication, or support that exists among members of a social system" (p. 31).

A quote given by Daniel J. Brass (2003, p. 284) about Buddha's view of the interconnectedness of a net is a good start to understanding the social network concept:

> As a net is made of a series of ties, so everything in this world is connected by a series of ties. If anyone thinks that the mesh of a net is an independent, isolated thing, he is mistaken. It is called a net because it is made up of a series of interconnected meshes and each mesh has its place and responsibility in relation to the other meshes.

Organizations that focus on the individual in isolation, searching for that elusive personality or demographic characteristic that defines the successful employee, are failing to see the entire picture (Brass, 2003). The way that those in a group or network respond is a function of attributes from both the actors and the environment. Therefore, the search should be for a way to focus not only on the individual but also on the relationships. These relationships form social networks, and founders play a major role in the formation of these networks. The founder of any organization plays a key role in determining the shape that these internal and external networks take and the subsequent use of the information gathered from these networks.

The social network perspective assumes that actors (whether individual, group, or organization, rational or political) are embedded in a web (a network) of actors (Brass, 2003). It is this relationship, both internal and external, that this study investigates and the effects of the founder on these relationships, TMTBI, and firm performance. Internal networks deal with relationships between those inside the organization and external networks involve the relationships between the TMT and the external actors in the external environment. Included in the external environment are the suppliers, governments, competitors, legal and regulatory bodies, financial markets, special interest groups, stockholders, customers, alliance partners, trade associations, trade unions, external board members, universities, consultants, and so forth. Included in the internal networks are research and development, sales and marketing, finance, operations and production, and so forth. Figures 4 and 5 show the internal and external networks, respectively. These networks differ in structure (size and range) and the strength of ties.

Network Size

Network size is defined as the number of contacts and *range* is defined as diversity of contacts (Burt, 1982). The size of the network is concerned only with the number of contacts available to the TMT, not the importance of the contacts. According to Granovetter (1973), large networks are potentially, but not necessarily, diverse. In family business, when the founder is very central, it is expected that the size of the network will be small because the TMT members do not see the need to talk to or seek information from others when they can just go to the founder. The researcher expected an inverse relationship between founder centrality and TMT network size, as stated in hypotheses 4a and 8a. However, this argument is relevant only for small- and medium-sized companies because larger firms demand more information, thus creating the need for more contacts.

Network Range

Network range refers to the diversity of the network contacts (Scott, 1991). A very large network of the same types of contacts may not be in a position to exploit the rich reservoir of information that external sources can provide to help the organization to chart its competitive path; therefore, diversity of a network plays a key role in enriching the diversity of the information gathered from others. Even though larger networks tend to have greater ranges, the logic does not hold true in every case. A firm may have many ties with other strategic business units (SBUs) in the same

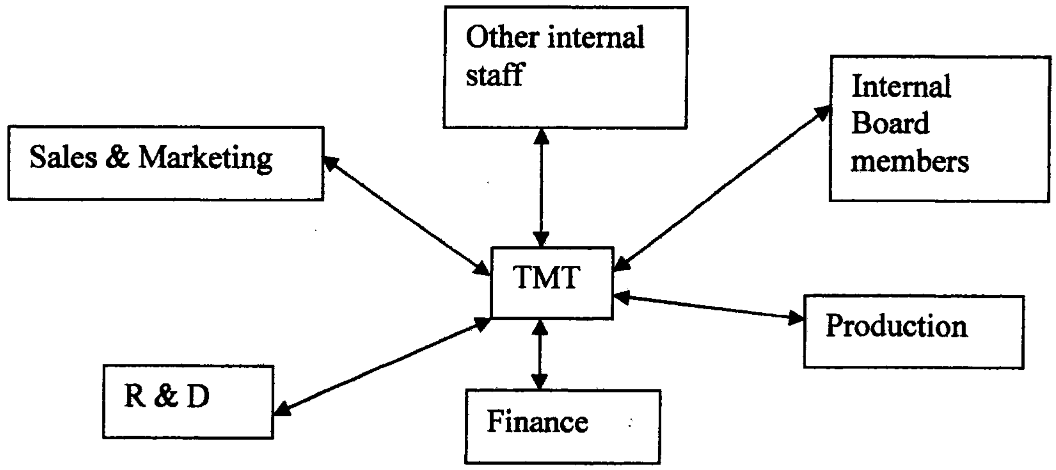

Figure 4. Internal top management team network.

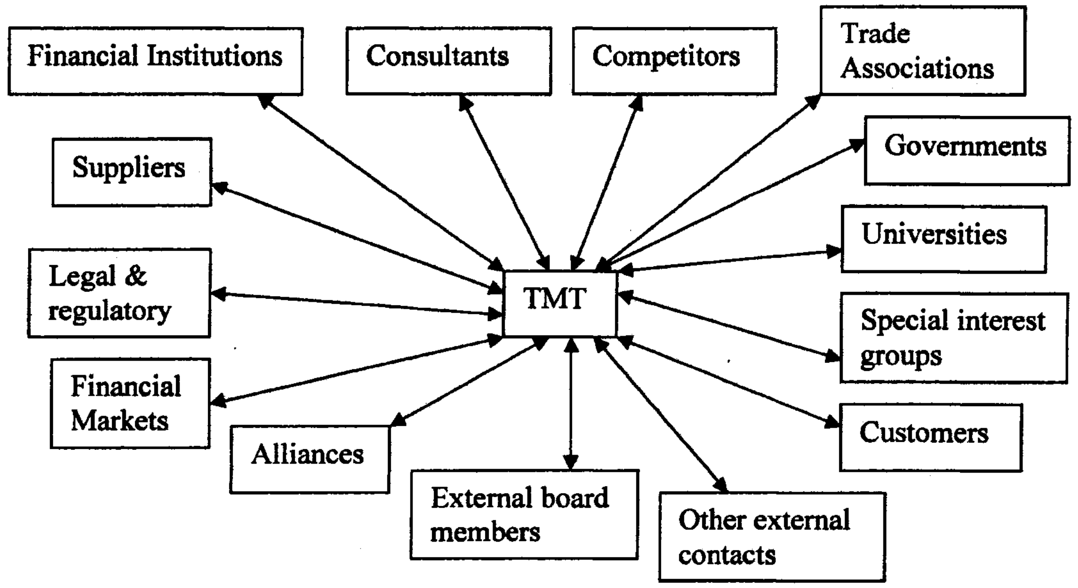

Figure 5. External top management team network.

organization but few contacts with different others. Another firm may have few contacts with the SBUs of the same organization but be well connected with a greater number of other organizations, giving it a wider range or diversity of contacts. In such a case the firm may have access to more diverse information due to the diversity of its network. As Aldrich and Zimmer (1986) and Barley (1986) stated, having a wide range of social contacts is an essential component in starting a successful new firm. Thus, diversity in social networks is important because the novelty of information coming from the environment increases as the range increases. Therefore, range provides a more complex measure of TMT networks than size alone. But just as in size, range cannot be so diverse that the TMT members spends extensive time in gathering information from all the contacts and very little time in communicating that information with the other members of the TMT. There should be that optimum combination of size and diversity that does not waste TMT's time and enhances the level of collaboration and information sharing among the TMT members. This study should point in the right direction to achieve that.

The argument advanced in this study is that founder centrality limits the range of the network because the TMT members may not find the need to talk to many different others if that information can be accessed through the founder. Thus, the researcher expected an inverse relationship between founder centrality and the TMT network range, as represented by hypotheses 4b and 8b. Again, as in network size, this argument is viable only in small- and medium-sized firms because larger firms require a more diverse range of information that comes from a diverse range of contacts, both internal and external. However, a range of medium diversity would be more valuable than a narrow range because diversity of information adds value to the organization's decision-making capability. This study addresses this consideration.

Strength of Ties

The strength of ties varies among actors. These ties are defined by interaction frequency, relationship duration, and emotional intensity. Strong ties are of long duration, exercised frequently, and emotionally close (Granovetter, 1973). Tie frequency refers to the number of times a contact is made with the other actor over a specified period of time. Duration of ties is the length of the relationship since its establishment. Emotional intensity is the type of bond that exists between the TMT member and the other actors in the network. More sensitive information is passed mostly through strong ties, where trust and trustworthiness lead to tie stability. Strong ties aid in the development of trust and reciprocity, both of which enable the exchange of complex and sensitive information that cannot be transmitted through weak ties. The trust and reciprocity elements of the ties are what Krackhardt (1992a) referred to as *philos*. *Philos* (a Greek word meaning *friend*) develops when actors interact, like each other, and do so for an extended period of time. This calls for high interaction frequency, reciprocity, and long duration. This is what Granovetter called the strength of a tie. When such ties are the result of deliberate firm specific actions or practices, they can lead to sustainable competitive advantage (Barney, 1991b) and the founder becomes a key player in molding such practices. This study examines tie strength as it relates to founder centrality and TMTBI.

While the TMT external social networks are a source of valuable information, the internal social networks provide the TMT with a unique opportunity to exploit the reservoir of information that the company already has. The firm's TMT may choose whether to concentrate their efforts on building internal ties (internal locus) or on external ties (external locus). As Mintzberg (1973) argued, top managers are responsible for gathering, sifting, and collating information from employee groups and departments throughout the organization. The effective use of such networks and information will provide a distinctive advantage to the firm. Thus, those firms whose internal and external TMT social networks are structured to maximize information gathering are able to provide information and indeed a competitive advantage to the organization (Collins & Clark, 2003). In essence, those firms that have large and diverse internal and external social networks will add value to the firm's ability to assess the environment, both internal and external, thereby improving the quality of their decisions. Caution is in order because the presence of very large and diverse networks may curtail the level of information sharing between the members of the TMT as they spend more time with these contacts and leave less time for other team members, thereby affecting the strength of ties. Also, such information may be too general because such large and diverse networks are usually characterized by weak ties.

A review of strategy literature (e.g., Porter, 1980) reveals that relations and interdependency among competing organizations are important environmental factors that play a key role in determining firm behavior and performance. Actions taken by one firm affect the decisions made by others in the same or competing industry as they formulate their own strategies. The TMT must understand the external networks and the information that they provide in order to position themselves strategically and to add or delete contacts with actors in the network as new situations arise. Large and diverse networks are believed to provide more information than small and less diverse networks but the optimum level of size and range where diminishing returns set in is mostly unknown and worthy of investigation.

This study was designed to understand the implications of the presence of such networks to both the TMTBI and firm performance. Since TMT social network structures vary among firms, this study will shed light on strategy implications of such variations on the TMT's strategic outlook and the influence of the founder in molding such outlooks.

Scholars and researchers have looked at social networks from a variety of areas of inquiry. Among the areas investigated are social network influence and success in business start-ups (Jenssen & Greve, 2002), social networks as a source of competitive advantage (Laere & Heene, 2003), social network and individual creativity (Perry-Smith & Shalley, 2003), social networks and team performance (Rosenthal, 1997), social networks and mentoring (Higgins, 2001), social networks and the acquisition and utilization of information in new product alliances (Rindfleisch & Moorman, 2001), and top-level management social networks and firm performance (Collins & Clark, 2003). Kogut (2000) looked at the emergence of a network as a structure as a result of rules to cooperate in certain markets, Ahuja (2000) looked at the propensity of linkage formation, Rangan (2000) looked at when and how social networks influence the efficiency of economic actions, and J. H. Dyer and Nobeaka (2000) looked at how Toyota's strong ties with suppliers allowed it to enjoy relative productive activities.

Most of these studies have looked at the individual, the strength of the ties, the range of the network, and the size of the network as they relate to different attributes of the actors. Only three studies (Michalisin et al., 2004; Michel & Hambrick, 1992; Smith at al., 1994) have examined the relationship between TMT collaboration at TMT level and firm performance; all reported a positive relationship. No study has looked at TMT social networks and TMTBI and firm performance. Understanding the effects of the information emanating from the social networks on the TMTBI can lead to understand what effects TMT social networks and founder centrality have on firm performance. This can also lead to understanding the extent of strategy infusion within the organization, especially as it relates to internal social networks, and how these affect firm performance.

In their study of strategic human resource practices, TMT social networks, and firm performance in high-technology industry, Collins and Clark (2003) found that TMT social networks were important to firm performance and that strong and diverse external networks increased both sales growth and stock price. Thus, the external networks transmitted information that modified TMT's strategic behavior in some way in order for the strategic choices that they made to positively affect the firm's sales growth and consequently the stock price. This interface between human resource practices and firm performance provide evidence that TMT social networks affect managerial strategic choices and, by default, the firm's strategic direction and is therefore related to firm performance.

Through their empirical research Collins and Clark (2003) found out that high-level internal connectedness allowed the TMT to become aware of information reservoirs within the organization and of the information needs at various organization locales. Thus, the presence of internal social networks increases the level of TMT's strategic learning as they digest the information received and enables them to exchange this information with others in ways that affect their strategic choices. The presence of the founder plays a key role in this regard because he/she is a central figure in the dissemination of strategic information. This amplifies Eisenhardt's (1989) argument that the TMT's ability to achieve both speed and quality is affected by the use of real-time information. Social networks (internal and external) are a good source of timely and relevant information as it relates to both the environment and the organization (Collins & Clark). The TMT and the founder are at the apex of information transfer, gathering, and distribution from both internal and external networks; as such, they are in a particularly favorable position to collect and manage information that enables the organization to act (Mintzberg, 1973).

Information theory (Galbraith, 1973) suggests that organizations should reduce uncertainty and take actions to increase performance. Galbraith stated that organizations must be able to access the required information, process it, and distribute it to key implementers so that action can take place to counter environmental threats. Therefore, as the key boundary-spanning mechanism for the organization, the TMT' social network should have positive influence on the organization's ability to access important information (Burns & Stalker, 1961; Mintzberg, 1973; Thompson, 1967). Collins and Clark (2003) argued that the structure (size and range) and strength of ties of TMT's internal and external networks provide informational benefits that lead to competitive advantage and higher performance. It can then be argued that, if the social networks bring benefits through the information gathered, which may lead to increased firm performance and competitive advantage, then founder centrality and TMT social networks are key in enabling the TMT members to work together to accommodate the new realities realized through the consumption of information emanating from both the internal and external environments and to operationalize strategic choices.

This relationship warrants investigation to understand the relationships among the TMT social networks, founder centrality, TMTBI, and firm performance as the TMT's strategic behaviors change to accommodate new environmental realities. Ansoff and McDonnell (1990) identified several strategic behavior modes: (a) ad hoc management, which treats issues as they arise, one at a time; (b) issue management, which anticipates, assigns priorities, and systematically manages resolution of issues (this takes three forms: strong signal issue management, weak signal issue management, and strategic surprise management); and (c) strategic posture management, which provides guidance to the firm's strategic development (this also takes three forms: long-range planning, strategic posture planning, and strategic posture management). All of these strategic behavior modes are dependent on the utilization of the information emanating from the environment, the quality of which will determine the quality of the strategic decisions made and consequently the level of firm performance. This makes social networks important sources of information and the TMT as the conduit through which this information is transferred to the organization to aid in decision making.

Ansoff and McDonnell (1990) looked at the conditions under which these behavior modes would operate, either individually or in a combination: *predictability* of strategic choices, *complexity*, and *novelty*. Predictability is a measure of completeness and unambiguity of the information that is available to the firm by the time it must respond, if it is to respond on time. High predictability means that the information is adequate to define and evaluate specific business alternatives, whereas low predictability means that the information is partial and action alternatives are not yet clear. The information collected from the social networks would greatly enhance the predictability level, thereby triggering a response that would improve performance and retool management's strategic behavior mode. Larger and more diverse external networks would be more likely to provide such highly useful information.

Ansoff and McDonnell (1990) defined *complexity* as a measure of pervasiveness of the impact on various parts of the firm as well as the frequency of occurrence of the challenge. The information emanating from the social networks will enlighten the TMT about the impacts of various challenges on the firm, how often to expect them, and what strategic choices are appropriate. Some of the actors in the networks have experienced some of these challenges before and are in a position to share experience and information on the strategic positions that they assumed when faced by discontinuities. Such information might call for the TMT to increase internal and external collaboration in order to give the appropriate response.

By referring to social networks as a set of relationships that TMT has with those inside and outside the organization, the study looks at these relationships in terms of range (the diversity of the contacts), size (the number of contacts), strength of the ties (weak or strong ties), and their relationship to firm performance. These relational attributes (Wasserman & Faust, 1999) help to explain the nature of the actors' relationships to one another and the value added by such relationships in terms of the level of TMTBI present at various levels of networks size, range, and strength of ties. A good example is the finding by Granovetter (1973) that effective social coordination does not arise from densely interlocking "strong" ties; rather, it derives from the presence of occasional weak ties between individuals who frequently did not know each other well or have much in common. However, this view was contradicted by Krackhardt (1992b), who argued that strong ties add more value because more sensitive and proprietary information is passed through such ties because the level of trust is higher. This study takes Krackhardt's side of the argument and argues that strong ties lead to higher levels of TMTBI as they collaborate, share information, and make decisions jointly.

The understanding of these relationships will contribute to founder centrality and social network research by providing conceptual clarity and focus and by bringing theory and methods from social network research to understand the role of the founder and TMT social networks in creating a behaviorally integrated TMT, the infusion of strategy within the organization, and how these affect firm performance. Other organization-level factors that affect growth of relationships, such as organizational culture (Aryee, Chay, & Chew, 1996), hierarchical structure (Ragins & Cotton, 1991), diversity (Ragins, 1997), creativity (Perry-Smith & Shalley, 2003), prestige attainment (Davern, 1999), and CEO dominance (Haleblian & Finkelstein, 1993), can be guided by organization-level human resource practices, on which the founder has great influence, that can create an atmosphere of relationship building that enhances the organization's management capability.

As Higgins (2001) argued, TMT members also seek external networks that provide connections to the other actors whom they may call upon when the market dynamics affect their job security and strategic behavior. Technological changes are forcing TMT members to look to others for continued learning to keep up with the demands of the market place and maintain the firm's management capability. Ansoff and McDonnell (1990) pointed out that, for optimum profitability, the responsiveness of management capability must match the turbulence of the firm's environment. Social networks provide information that enables the firm to compare its capability and management profiles with the demands of the firm's environment. This is the balancing of strategic aggressiveness, responsiveness of the management capability, and the turbulence level of the environment.

As the world and organizations become flatter and more flexible, more value is created through horizontal collaboration as sources of information change and become more diverse (Friedman, 2005). There is a need for the individual to stay connected, thereby necessitating both constant reconsiderations of one's professional development and where to look for information (Higgins, 2001). This calls for stronger internal and external social networks that are more diverse (Ragins, 1997) and wider in range. Understanding such networks will advance understanding of the role that social network and founder centrality play in shaping the firm's strategic choices, improving decision quality, creating a behaviorally integrated TMT, and improving firm performance.

People interact to make sense of their environment and to operate successfully within it. Therefore, it is important to focus not only on the personal attributes of the actors in their entirety but also on the relationships (Brass, 2003). Research on strategic human resource management suggests that human resource practices can enhance firm performance when they are internally aligned with one another to manage employees in a manner that leads to competitive advantage (Delery & Doty, 1996). The founder plays a major role in shaping such practices, which eventually define the firm's corporate culture and consequently the strategic choices that the firm makes, as well as increase collaboration among members of the TMT. Collins and Clark (2003) argued that a firm should be able to evaluate and compensate TMT for its ability to build and maintain relationships with key internal and external actors. They also argued that the more actors a network has, the more diverse and novel the information and thus the greater the social capital. Such diversity in novel information emanating from the firm's environment helps the firm to become more outward looking than when the social network is less diverse.

According to Krackhardt (1992a), the stronger the ties, the more useful and desirable the information because strong ties help to develop trust and reciprocity (what the researcher calls "IOUs") and the firms are able to exchange complex information that cannot be exchanged over weak ties. Social networks are important strategic management tools that TMT should utilize and that management should adapt in collaboration, enhancing management practices to add value by creating an atmosphere of teamness where decisions are made jointly and TMT members share quality and timely information. The founder's influence in forming such practices is key because he/she has the power to control the firm's agenda and therefore the strategic direction that the firm will take and, by default, the success or failure of the firm. It is therefore logical to argue that, because of the novelty of information that emanates from the TMT social networks, the presence of strong ties will have a positive effect on firm performance. The TMT is able to identify sources of critical information, with whom to share it, and how much to share.

For family businesses, the researcher expected an inverse relationship between the size and range of the TMT networks and TMTBI because larger and more diverse networks consume too much time and produce too much information. TMT capabilities and scarcity of time and resources may limit their level of utilization of such information, thereby limiting the need to share that information with others in the team. Founder centrality levels also affect the level of size and range of these networks: Higher centrality levels mean less need for the TMT to seek information from others. As Krackhardt (1992b) argued, larger and diverse networks are expensive to maintain because they are expensive in terms of time (a rare resource for managers) to maintain such networks. Therefore, Krackhardt argued for the tradeoff of size for strength, which is the position taken by this study. Smaller networks will be more effective in gathering sensitive information. When the size is small and the range is narrow (medium), there is time for more collaboration, higher frequency of interaction, formation of closer relationship, and better chances of knowing a contact for a longer duration, leading to stronger network ties. Strong ties should lead to more information sharing and joint decision making. Thus, the researcher expected a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties, and TMTBI. Since the founder's effects on these characteristics are such that the size is small, the range is narrow, and the ties are strong, this kind of reasoning led the researcher to develop the following hypothesis on the relationship between TMT social networks and TMTBI. Figure 6 addresses the relationship proposed in this hypothesis.

H6: *There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and TMTBI.*

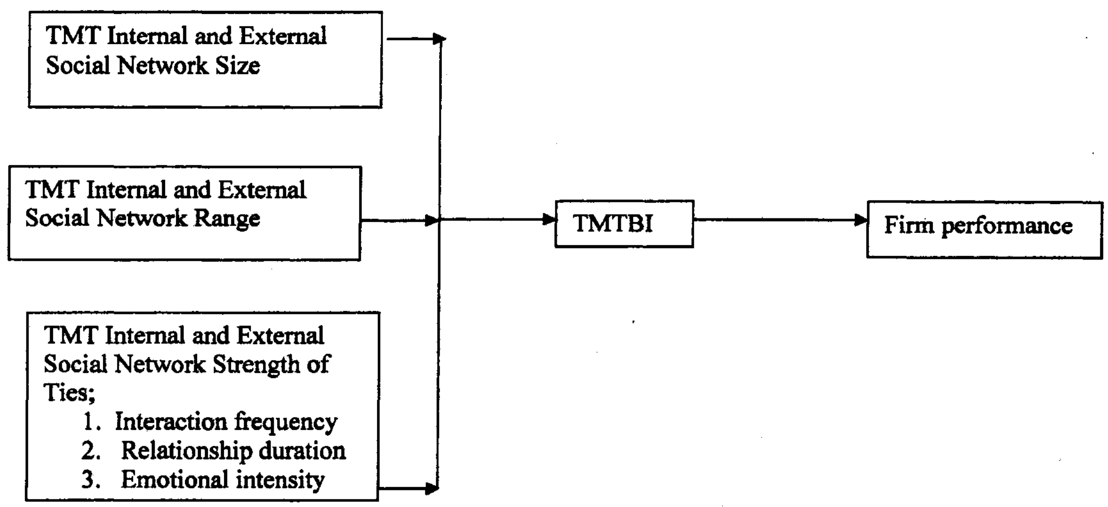

Figure 6. Top management team (TMT) social networks, top management team behavior integration (TMTBI), and firm performance.

A balanced network in which the size and diversity are medium and characterized by strong ties should lead to a well-performing TMT that is behaviorally integrated. This is the argument that Ibarra (1992) put forth and Burt (1982) advocated with his notion of structural holes. This study enhances that understanding by bringing in the family dynamic and the concept of behavioral integration.

Social Capital

Social capital has gained influence in strategic management over the past few years as a concept that provides a foundation for describing and characterizing a firm's set of relationships (Inkpen & Tsang, 2005). Social capital theory was developed to explain the value in relationships inherent in the networks (Shaw, J. D., Johnson, & Lockhart, 2005). The concept can be broadly defined as an asset embedded in relationships (Leanna & Van Buren, 1999). It is said to be developed when relationships facilitate instrumental action among people (Coleman, 1988). It is said to provide benefits to both individuals (Burt, 1982; Seibert, Kraimer, & Liden, 2002) and organizations (Leanna & Van Buren), and it includes both interpersonal relationships and the resources embedded in the relationships (Burt).

For the purpose of this study *social capital* is defined as the aggregate of resources embedded within, available through, and derived from a network of relationships possessed by an individual, a group, or an organization. This definition encompasses both the private and the public good perspective of social capital. When an individual, a group, or an organization establishes a network tie with another individual, a group, or an organization, this tie becomes a social capital between the two. As trust develops, the two are able to share resources and information that otherwise could not have been shared, had the tie not been established.

The individual benefits would include increasing the probability of promotion, improved decision making ability, and so forth, while organizational benefits could include an increased level of communication efficiency, employee trust, increased organizational decision-making capability, and so forth. McGrath, Vankataraman, and MacMillan (1994) referred to social capital as "team proficiency," whereby proficient teams become a source of idiosyncratic entrepreneurial routines that can provide the firm with a differential advantage. They described social capital as enabling the organization to overcome cognitive, physical, and skill limitations through the establishment of new bundles of assets. Such bundles of assets are the intangible capabilities and insights gained from the networks as the TMT members extract information and resources from their connections. Such bundles of assets are not possible when team members act as individuals. Thus, as a collective, they are able to access more resources than when acting as individuals. This is the notion first expressed by Alchian and Demsetz (1972) when they argued that firms exist to coordinate "team production" in a way that collective output exceeds that of the individuals working alone. This point was amplified by Coleman (1988), who pointed out that this excess is due to social capital stemming from the relations between the actors and that these relations have value over and above that of the sum of the individual human capital of the individual members of the team. For a firm to succeed, therefore, it is important for both individual attributes and the relational attributes among the team members to be put into consideration. Such an argument augments the one advanced by McFadyen and Cannela (2004), who argued that having a number of direct exchange partners provides an individual with the opportunity to obtain resources and that the strength of the relationships provides the opportunity to develop the jointly held resources. These resources, when developed jointly, provide much more value to the organization than when each individual develops his/her own independently. That excess is what Coleman (1988) referred to as social capital. It is embedded in the relational structure, and the literature shows that direct ties stimulate the exchange of resources embedded within the relationships (Nahapiet & Ghoshal, 1998).

An organization's social capital enhances the quality of group work and the richness of information exchanged among team members. Thus, social capital is epitomized in how it facilitates interactions and exchanges of ideas (Subramaniam & Youndt, 2005). Social capital can be said to exist either among the employees or between the employees and other external actors. The presence of both internal and external networks provides the conduits necessary for the creation and diffusion of social capital. As Reed and Srinivasan (2005) found in their empirical study of 135 personal banks, those banks that had good relationships with customers or were at least in frequent contact with the customers had higher overall performance, showing a positive relationship between external social capital and firm performance.

Networks provide firms with access to knowledge, resources, markets, or technologies (Inkpen & Tsang, 2005) and social capital has been identified as a concept that can add value to the study of networks (Lee, Lee, & Pennings, 2001). The TMT networks in family business add value to the family firm as knowledge, resources, propensity for entrepreneurship, insights to competitors' strategic positions, and other benefits accrue from the relationships established by the team members.

Other researchers have argued that access to knowledge is one of the most important direct benefits of social capital (Adler & Kwon, 2002; Anand, Glick, & Manz, 2002; Baker, 2000; Garguilo & Benassi, 2000; Nahapiet & Ghoshal, 1998). As is evident from the previous discussion, social capital is defined by its function. It is not a single entity but a variety of different entities that have two elements in common: (a) They consist of some aspect of social structure, and (b) they facilitate certain actions of actors within the structure (Coleman, 2003).

Since social capital adheres in the structure of the relations between actors and among actors (Coleman, 2003), it is present in both individual structures and corporate structures and is relevant to this current discussion of TMT social networks, where the internal social networks would be the internal social capital conduits and the external social networks would be the external social capital conduits. For the TMT internal, social capital is created from the interactions among the TMT members themselves and their interactions with others inside the firm. Having said that, it is evident that social capital will be greater when ties among the team members are strong because it exists in the relations among individuals or groups. As Coleman (2003) pointed out, a group within which there are extensive trustworthiness and extensive trust is able to accomplish much more than a group without trustworthiness and trust. Such is especially true in the family business, where trust and loyalty are essential for the smooth functioning of the familial relations alongside business relations, both of which have to exist side by side. In family business, social capital emanates from the family relations and business relations; thus, the founder plays a key role in maximizing its accumulation and usage. The IOUs created through reciprocity and the feeling of an obligation to be faithful and trustworthy to the family business are a unique entity in the debate about social capital.

Coleman (2003) gave an example of the wholesale diamond market in New York, where the majority of merchants are Jewish. He described how these merchants are known to hand over a bag full of expensive stones, worth tens and evens hundreds of thousands of dollars, to another merchant to inspect at his/her leisure. They do so without having insured the stones but with the belief that the trust bestowed upon their fellow merchant is so great that they do not expect the other to exchange or substitute the stones with inferior ones. Since such free exchange of the stones is essential for this market to function, the amount of social capital embedded in such a network is enormous. This network is as a result of relationships formed through intermarriage, religion (most go to the same synagogues), and community affiliations; they result in high levels of strength of ties. The same scenario would be expected in the family business, where the confluence of family and the business systems form a corporate culture that promotes the formation of relationships based on trust and loyalty. The human capital is amplified by the presence of social capital, which adds value to the family business.

From the above discussion it is evident that the fundamental proposition of social capital theory is that network ties provide access to resources and information (Liao & Welsch, 2005) and these resources and information are what distinguishes the levels of social capital present in different networks within different teams in different firms. Therefore, it could be expected that those family firms that have higher levels of social capital would exhibit higher levels of network tie strength within the TMT networks. It could also be expected that there would be higher levels of TMTBI as the TMT members work together to share the resources and information coming from the networks.

Managers should recognize and understand the importance of tapping social capital embedded in their networks and the role that social capital plays in today's business environment (Anand et al., 2002). The need for organizations to tap the social capital embedded in their networks, especially the external networks, is driven by three facts suggested by Anand et al.:

1. The current business environment requires managers to have large amounts of information and knowledge to make quality organizational decisions. This is especially true for family businesses, which tend to look inward for information and are therefore at risk of being challenged by a strategic surprise.

2. Because of the novelty of the challenges and situations faced by today's managers, past knowledge and experience are less useful, thus calling for the organizations to tap external networks. The point that is especially relevant for the family

business is for the founder to realize that his/her ways of doing things may be overtaken by facts on the ground. The realization that past knowledge and experiences may not be fit for the current business climate could help founders see the need to tap into the internal and external networks' social capital. It is this researcher's experience in family business that founders are usually reluctant and indeed suspicious of new information emanating from the environment. They want to protect their "baby" from the new and unproven concepts or technologies and thus they tend to be more adverse to risk than are their children. However, today's firms need an entrepreneurial approach in which managers balance their efforts to develop and augment existing lines of business while simultaneously developing new and unexpected avenues (Anand et al., 2002).

3. The large number of high-technology firms in today's business landscape makes it necessary for the family firm to tap into the social capital embedded in its networks in order to keep up with the novel technologies being developed and the changing needs of their customers and alliance partners.

Social Capital and Entrepreneurship

The theory of social capital has been expanded to the field of entrepreneurship research (Liao & Welsch, 2005). In recent years the entrepreneurship literature has highlighted the significance of social networks in the creation and sustaining of new ventures (Aldrich, Rosen, & Woodward, 1987; Anderson & Jack, 2002).

At the company level, the entrepreneurship literature has highlighted the significance of social capital in understanding how firms create and manage a network and what the outcomes are (Aldrich & Zimmer, 1986; Florin, Lubatkin, & Shulze, 2003; Larson & Starr, 1993; Liao & Welsch, 2005). At the individual level, it has been demonstrated that an individual entrepreneur's personal network allows access to resources that are not possessed internally (Ostgaard & Birley, 1994). Through their personal connections, favorable reputation, and relevant previous experience, entrepreneurs are able to build high levels of social capital upon which they draw to gain access to venture capitalists, potential customers, information on potential competitors, and other relevant information needed for the survival and growth of the new firm. As such, social capital becomes a good source of entrepreneurial resources, without which survival would become difficult. For the family firm, such information is crucial because most family firms face financing difficulties at the early stages of their growth and increasingly need to draw on the contacts present in their networks in order to make sense of any signals emanating from the environment and access resources needed for strategic responses. Smart entrepreneurs must accumulate social capital just as they accumulate physical resources, and family businesses are no exception.

At the individual level, TMT members can draw on their external networks to increase their entrepreneurial sense making, opportunity recognition, and improved decision-making capabilities. Social capital also involves other aspects of social context, such as social interaction, social ties, trusting relationships, and value systems, that facilitate the actions of individuals located in a particular social context (Nahapiet & Ghoshal, 1998). Using this context, social capital can thus be referred to as the sum total of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individual entrepreneurs (Liao & Welsch, 2005). This is the same view that was adopted by Nahapiet and Ghoshal.

The family business environment calls for the accumulation and utilization of social capital in order for the family firm to be able to exploit the resources embedded within the networks. Since founders are the entrepreneurs in the family business, they are said to have the necessary ability to enterprise and therefore an increased chance of starting a business that is most likely to succeed if they are able to augment the human capital (their knowledge, skills, and abilities, which come from education, training, and experience) at their disposal with social capital accumulated from social ties, interactions, value systems, and structural interconnectedness. The TMT plays an important role in helping the founder to achieve the goals and objectives that the founder set for the family firm. The networks formed by the TMT become important conduits for the accumulation and delivery of social capital.

As Eisenhardt and Schoonhoven (1996) pointed out, new ventures are easily caught in a trap in which their chances of survival and growth are enhanced when they have access to resources and information, but they are prevented from doing so because they have scarce resources. They cannot access resources and information because they lack the resources to enable them to do so. The one strategy that they can use to avoid such a trap is to use entrepreneurs' personal ties and social interactions (Coleman, 1990). TMT social networks then become an important part of this strategy as they help the family firm to access such resources and the information needed for survival, growth, and innovation.

Social capital becomes a source of competitive advantage in identifying and evaluating opportunities, obtaining resources, and establishing customer relations (Lux, 2005). Since social capital provides both information and access to financial, physical, and human resources (Adler & Kwon, 2002; Lin, 2001), entrepreneurs are said to possess social competence when they are able to develop and exploit entrepreneurial opportunities (Lux). The founders of family businesses should facilitate the development of norms that facilitate interactions, relationships, and collaboration

(Subramaniam & Youndt, 2005). This fact was amplified by the findings of Weisz, Vassolo, and Cooper (2004) in their study of social capital in nascent entrepreneurial teams; they found that teams that had higher external social capital experienced higher performance. TMTs with an external locus can maximize the value of the information that they receive because there is a diversity of information and complementary partnerships within external networks.

Internal social capital in family businesses may be lower because of lack of diversity of internal information because most of the TMT members will have the same sources of internal information and therefore a high redundancy among actors. Family members may tend to be emotionally close but they may also tend to have similar views and have the same internal contacts to whom they turn for advice, mostly the founder; in this case not much internal social capital is accumulated. As Renzulli, Aldrich, and Moody (2000) noted, family ties tend to provide lower levels of new information. As noted by Ruef, Aldrich, and Carter (2003), founding entrepreneurs tend to exclude strangers from founding teams and tend to have decreased functional diversity, which may inhibit the firm's long-term success. This is very true in family businesses, where there is a tendency for the TMT to look inward.

Social capital is embedded in the TMT social networks such that smaller and narrow networks that have strong ties will be a source of higher levels of social capital. Founder centrality influence in family businesses' TMT social networks (as argued in the previous section) is such that the networks will tend to be of small size and narrow range and characterized by strong ties. The following hypothesis follows this logic.

H7. *Social capital will be positively associated to TMT social networks that are small in size, narrow in range, and characterized by strong ties.*

The TMT Upper Echelon Perspective

The importance of the TMT to organizational effectiveness is firmly established in strategy literature. Cyert and March (1963) argued that top-level management add value to the organization primarily through strategic decision making. The work of Andrews (1971) and Child (1972) on the importance of top-level managers, especially the CEO, to the well-being of the organization is also well established. These earlier works on the TMT led to the development of the upper echelon perspective that has continued to guide TMT research over the past 2 decades.

The upper echelon perspective (Hambrick & Mason, 1984) purports that the firm is a reflection of the characteristics and actions taken by the team of managers central to the firm, also known as the TMT. Thus, TMT is the group of senior level managers who aid the CEO in deciding the strategic direction of the organization (Bantel, 1994; Hambrick, 1994; Hambrick & Mason, 1984). According to Smith et al. (1994), the power to control the direction and performance of the firm makes the TMT the most influential team in the firm.

Several studies have looked at TMT behavior and characteristics, such as the demography, interaction, and impact on the success of the firm (Amason, 1996; Amason & Sapienza, 1997), diversity and entrepreneurial orientation (Orlando & Johnson, 1999), demographic diversity in decision-making groups (Elsass & Graves, 1997), TMT heterogeneity and firm performance (Murray, 1989), and racial diversity, business and strategy and firm performance (Richard, 2000).

However, there has been an overemphasis on demographic approaches to the study of the TMT in the past. Beginning with Hambrick and Mason (1984), researchers have looked at demographic characteristics to try to understand the value added by these characteristics to the overall effectiveness of the firm. But even as this was happening, other researchers started to go beyond demography and conducted research that focused on decision-making processes of the TMT. Bourgeois (1980) proposed a link between TMT consensus and firm performance, Fredrickson (1986) focused on strategic decision-making processes by incorporating a model of managerial discretion, Ancona and Nadler (1989) introduced the concept of TMT teamwork, Smith (1991) focused on various TMT processes that included communication and their effect on firm performance, and Smith et al. (1994) demonstrated the importance of TMT social integration and communication in the prediction of firm performance.

Other approaches to the study of the TMT began to appear in the horizon over the past few years. Mooney and Sonnenfeld (2001) looked at the antecedents to TMT conflict and the importance of behavioral integration. They looked at behavioral integration as a moderating variable on the relationship between TMT heterogeneity and cognitive and affective conflicts, and between prospector strategies and cognitive and affective conflicts. However, in this researcher's opinion, these researchers failed to see is the quality of investigating the relationship between cognitive conflict and TMTBI. Even though they found that behavioral integration moderated the relationship between TMT heterogeneity and cognitive conflict, the researcher considers that value could have been added had they tested TMTBI as a dependent variable and cognitive conflict as an independent variable.

Hambrick, Finkelstein, and Mooney (2005) looked at executive job demands, which they contended come from task challenges, performance challenges, and executive aspirations. By looking at the TMT from a job demand perspective, they expanded understanding of the sources of some of the executive behaviors seen in the some of the companies that were criticized for being too aggressive and even ethically challenged in the early part of this decade, such as Enron, Tyco, Worldcom, and Adelphia. Some authors have attributed these behaviors to greed (Stewart, 2003), hubris (Hayward & Hambrick, 1997), or intense job demand (Hambrick et al., 2005). Such a departure from the TMT characteristics enriches the discourse by looking at other ways to explain executive behavior. As more research is done in areas of TMT that veers away from demographic variables, understanding of the workings of this important human capital, whose actions guide the strategic direction of the firm, will be enhanced. By concentrating too much on the demographics and executive compensation research of the TMT members in the 1990s, researchers failed to understand the underlying tenets behind some of the executive behaviors seen in the past decade.

Another group of researchers has been looking at TMT diversity in terms of race and gender. Included in this group are Dwyer, Richard, and Chadwich (in press), who looked at gender diversity in management and firm performance; Boone, Olffen, Witteloostuijn, and Brabander (2004), who looked at TMT diversity and selective turnover among TMTs in the Dutch newspaper publishing sector between 1970 and 1994; and Richard, Barnett, Dwyer, and Chadwick (in press), who looked at key contingencies of the racial diversity-firm performance relationship. Mason and Fredrickson (2001) looked at TMTs, global strategic posture, and the moderating role of uncertainty, and Bunderson (2003) looked at team member functional background and the direct and moderating effects of power centralization.

Kim and Higgins (2005) looked at the effects of upper echelons on alliance formation. This is the only study seen so far that comes closer to the network study that this research focuses on, in that it looked at the effects of TMT on the formation of alliances, which are essentially social ties. Examining these studies, it is evident that these researchers looked at the upper echelons from different angles, ranging from demographics to diversity to functional backgrounds to innovation and alliance formation. There is a void in the network studies of the TMT; this study begins to fill that void as management and researchers begin to understand the effects of attributes of TMT social networks on the way in which TMT members relate to each other inside and outside the firm and how those interactions affect the way in which the TMT members relate to each other.

For the purpose of this study the upper echelon perspective is extended to the family business to investigate the impact of the TMT members on the firm's performance as it relates to the social networks formed by these members, the level of collaboration between and among them, and how all of these affect the way in which the TMT members share information and make decisions. The collective dynamic of a TMT has a direct impact on the direction and performance of the firm (Ensley, Pearson, & Amason, 2002). The present study moves the discussion beyond the typical focus of upper echelon studies on TMT demographics, education, gender, and functional background (Pettigrew, 1992) by framing the study in a social network perspective, thereby provided insight into the TMT's social interactions and how this affects their behavioral integration and the performance of the family firm.

Given the importance of the TMT to the long-term survival of the firm, it is imperative that managers and researchers understand the relationship between the TMT social networks and TMT behavior integration. Research has shown that the constraints of the environment make it extremely difficult for any one manager on her/his own to be responsible for decision making (Finkelstein & Hambrick, 1996; Lawrence & Lorsch, 1967). Strategy making is a shared activity in a majority of organizations (Finkelstein, 1992; Hambrick, 1986; Thompson, 1967), and the TMTBI enriches the quality of this activity by utilizing the TMT members' knowledge through collaboration, sharing of information, resources, and joint decision making.

The presence of TMT social networks further enriches this activity by bringing in varied information sources from both within and outside the organization. This argument leads to the hypotheses stated after the discussion of TMT social networks, where TMTBI and TMT social networks are combined. These hypotheses posit that networks of small size, narrow range, and characterized by strong ties will be positively associated with TMTBI. The reasoning behind this is based on the network theory advanced by Krackhardt (1992a), who argued that sensitive and proprietary information is passed through strong ties because of the level of trust and reciprocity (what the researcher calls "IOUs") that characterize such networks. He stated that large and diverse ties will have an added cost because of the time necessary to establish the ties and to maintain them.

The above argument counters that of Granovetter (1973), who argued for the strength of weak ties. Weak ties involve establishing weak links with a large and diverse group of contacts that can be called on for information when the need arises. The problem with that argument is that the information gathered from such ties would most likely be general information, which would not add value to decision quality. Also, the world of the 1970s is different from today because of the enormity of the information that is available today. Then, the world was much larger and required larger networks to access enough information. Today, the world is much smaller and a manager needs only a few well-connected contacts through which to can access information. Such a world calls for the network to be small, of narrower range, and characterized by strong ties. Managers do not have the time to build large and diverse networks; they are too busy to invest time in maintaining them.

When the TMT members of a family has a network that is small in size and narrow in range and characterized by strong ties, they have enough time to collate the information that they gather from internal and external networks. They do not spend time communicating with others and therefore that leaves them time to communicate between and among themselves. This level of communication and collaboration enables them to share information and coordinate decisions. The information from their respective networks is valuable and enriches their decision-making capability, bringing them closer as a team; a feeling of teamness prevails. This relationship is represented in Figure 7.

TMTBI

TMT has been defined as a group of high-level managers who are responsible for formulating and implementing the firm's strategy. The power to control the direction and performance of the firm probably makes TMT the most important and influential team in the firm (Smith et al., 1994). In this research the argument is that the TMTs act like a team and that the feeling of teamness within the team is affected by the social interactions that the TMT has with others inside and outside the firm. The information that emanates from these networks, when shared by the TMT members, enhances their strategy-making capability. When a TMT acts like an effective team, it is said to exhibit "behavioral integration (Siegel & Hambrick, 1996). According to Hambrick (1994, 1998), behavioral integration refers to the extent to which the TMT engages in mutual and collective interaction. Hambrick (1994) argued that such interaction "has three major elements: (a) quantity and quality of information exchange, (b) collaborative behavior, and (c) joint decision making (p. 189). Therefore, a team that is behaviorally integrated is one that shares information, resources,

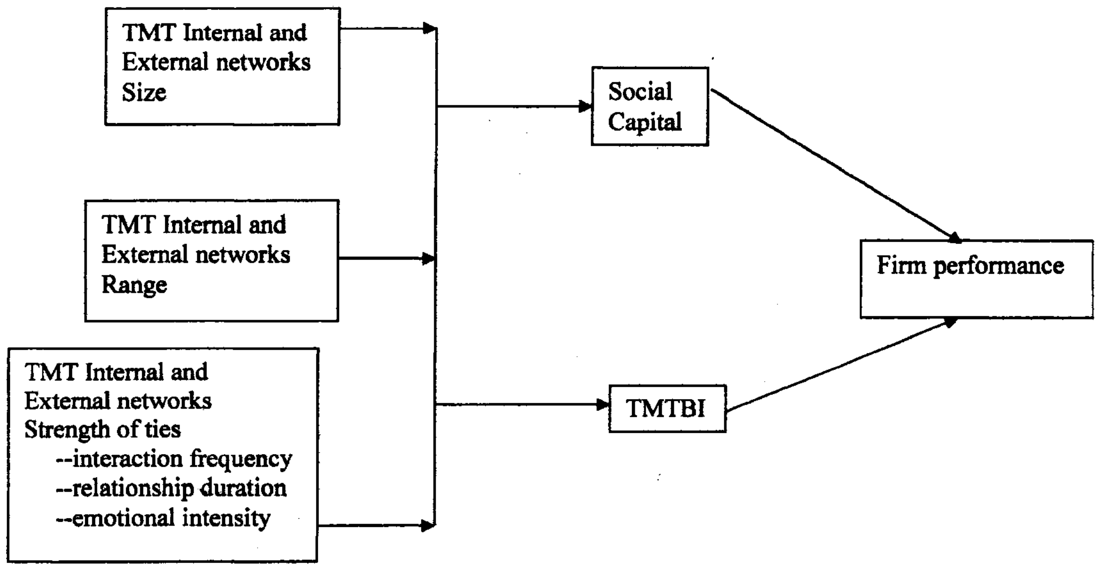

Figure 7. Top management team (TMT) social networks, top management team behavioral integration (TMTBI), social capital, and firm performance.

and decisions, and thus exhibits a high degree of teamness (Hambrick, 1998). Behavioral integration means that the TMT members have an open exchange of information, discuss issues openly, and feel that they are mutually responsible for both team and firm performance. This feeling of group potency is enhanced by the loyalty that the team feels toward the family business and to the founder of the firm.

Few studies have empirically examined behavioral integration because it is a relatively new area of inquiry in strategic management. Hambrick (1998) and Siegel and Hambrick (1996) argued that higher degrees of behavioral integration lead to better decisions and higher levels of performance. Other researchers have looked at other areas of behavior integration, and cohesion seems to be the one area that has interested most researchers. Social and organizational psychologists, as well as management scholars, have long been interested in the effects of team cohesion, an element of social integration, on a host of process and outcome variables (Hogg, 1992). Mullen and Copper (1994) established in their research that cohesion was positively associated with team performance, provided the team adapts norms of high performance. Westphal (1999) found that close social ties between TMT members and outside directors based on friendship and trust, thus creating a lack of independence, promoted efficiency in managing the firm. Most studies have concentrated inquiry on groups and teams at functional and task levels. Others have looked at cohesion at the TMT level (Michalisin et al., 2004; Michel & Hambrick, 1992; Smith at al., 1994); all found a positive relationship between cohesion and firm performance.

Mooney and Sonnenfeld (2001) looked at the importance of behavioral integration in TMT conflict; they found that behavioral integration was negatively related to affective and cognitive conflict. Their interpretation of these findings was that "behavioral integration encourages teams to avoid dysfunctional conflict and focus on the decision at hand" (p. 16). They also pointed out that "behavioral integration may seem to result in teams being so cohesive that they start to develop a single shared logic" (p. 16). By avoiding conflict and focusing on the decision at hand, more collaborative behavior is called for, leading to increased TMTBI.

Behavioral integration itself is a complex, possibly multidimensional construct that can enrich understanding of the way in which the TMT makes decisions in a collaborative manner, where the team acts collectively rather than as separate individuals. Such cohesion as one of the dimensions of TMTBI is said to have a strong impact on team behaviors (Bettenhausen, 1991; Goodman, Ravin, & Schminkle, 1987). Smith et al. (1994) noted that cohesive teams "that work well together, react faster, are more flexible, use superior problem solving techniques, and are more productive and efficient than less integrative members" (p. 432). Following the same rationale, it can then be argued that TMTBI will differ among different teams, given the different personal, social, and situational forces that are present in each organization's internal and external social networks. The diversity, size, and strength of ties of the social networks play a role in determining the level of TMTBI. TMTBI as a social dynamic evolves from the shared experiences, commonality of shared threats, desire to exploit the same trends and opportunities, similarity of shared values, desire to achieve the same common goals, and the reciprocity of information sharing and strategic learning. All of these attributes should lead to higher firm performance. It is the contention of this study that TMTs in family businesses will have an increased level of TMTBI because of the natural environment created through the sharing of common values and understanding, the presence of the founder as the family member who brings the family in the family business, and the desire to be loyal to the family cause.

Strong TMTBI may lead to both group potency and shared strategic cognition. Group potency can be defined as "the collective belief of a group that it can be effective" (Lester, Meglino, & Korsgaard, 2002, p. 352). Prior studies (e.g., Campion, Papper, & Medsker, 1996) have shown that high-potency teams yield superior performance. Ensley et al. (2005) argued that high-potency TMTs are desirable and are likely to produce more effective performance. This argument can be extended to the TMTs in family business because of their shared vision of and commitment to the family business and the founder. When teams are dominated by strong ties, as could be the case in family firms, they could be deprived of the strength of weak ties (Granovetter, 1973). This study sheds light on the issue of the strength of weak ties as it looks at firms that have weak and strong ties and their effects on firm performance.

The issue of "groupthink" (Janis, 1982), where firms fail to incorporate outside perspectives in decision making, which may lead to an abbreviated consideration of alternatives and an adherence to obsolete assumptions, has been raised as it relates to the TMT's need for conformity, thereby sacrificing the benefits of the uniqueness and tacitness of each TMT member's knowledge (Nordqvist, 2005). This may lead to a failure to properly interpret the signals emanating from the firm's environment as the TMT tries to be too much team players and fail to consider different perspectives. While cognitive conflict may be an effective means of information utilization, too much of it may hinder the benefits of the diversity of perspectives. But research has shown that strong dyadic ties make TMT members more likely to engage in cognitive conflict because they feel more comfortable in airing their viewpoints (Eisenhardt & Bourgeois, 1988).

The shared strategic cognition can be defined as the extent to which the TMT and the founder share mental models about strategy (Klimoski & Mohammed, 1994). The TMT members and the founder have a consensus on the strategic direction of the firm. Such consensus can be reached when there is strategy infusion through the ranks and the commonality of goals and vision drives the team members to see the strategic road map through the same lens. Such consensus will be more potent in a collaborative environment; therefore, TMTBI becomes a major ingredient to the strategic process of the firm. As complications in strategic implementation arise, and they do, there is need for the TMT to show commitment to the decisions that they make jointly, using the shared information. The founder plays a key role in keeping the team "glued together." This active commitment to the decision made jointly increases the TMT members' enthusiasm to sell the new strategic initiatives to those under them, thereby enabling strategy infusion through the ranks. As the TMT works together, caution is needed to make sure that they do not sacrifice sound strategies for collaborative expediency, which could be disastrous for the firm. Therefore, the founder should nurture a climate of respect for dissension, thereby encouraging the sharing of information from different perspectives in a collaborative and mutual responsibility. A certain level of cognitive conflict should be encouraged. Such are the tenets of the concept of behavior integration.

The researcher contends that TMTBI is important because of the complexity and the ambiguous nature of the work that the TMT does. Prior research has shown that teams that perform well under uncertain and ambiguous conditions are highly coordinated and flexible (Eisenhardt, 1989; Eisenhardt & Bourgeois, 1988). "TMTs that work well together react faster, are more flexible, use superior problem solving techniques, and are more productive and efficient than less integrative teams" (Smith et al., 1994, p. 432). Behaviorally integrated teams are more likely to produce the synergy necessary for superior firm performance (Katz & Kahn, 1978; Steiner, 1972). In their study of behavioral integration and its effects on firm-level outcomes, Li and Zhang examined 184 new technology ventures in China. The results indicated that behavioral integration facilitated new ventures' product innovation intensity and firm performance. In behaviorally integrated TMT, quality information is exchanged between heads of different functional areas (Hambrick, 1998) and it is these exchanges that shorten the time to interpret weak signals from the environment before they become strong and develop into strategic surprises. The researcher contends that TMTBI leads to better utilization of the TMT members' tacit and explicit knowledge and the information gathered from the environment, which results in higher-quality strategic decisions and higher firm performance.

As the TMT members share both tacit and explicit knowledge, the quality of their decisions is enhanced, thereby establishing a collective understanding of and ownership in the decision outcome (Amason, 1996; Andrews, 1971; Dess & Origer, 1987; Priem, 1990). These outcomes should lead to higher-quality decisions and an increase in the probability of their successful implementation. Successful implementation of quality decisions would lead to improved firm performance.

According to Ansoff (1988), one of the tasks of strategic decision making is to match the organization's strategic aggressiveness to the competitive environments' turbulence level. These environments may vary in levels of complexity and turbulence. The TMT makes decisions that make significant commitment of the organization's resources. These decisions have significant implications in the long-term survivability and viability of the organization. TMT decision quality should be of interest to both practitioners and academics. The TMT strategic decision-making process evaluates the firm's current and future decisions based on the capabilities and resources of the firm and of the competitors. Therefore, the TMT's ability to conceive and implement strategies that improve firm efficiency and effectiveness is of utmost importance if the firm is to maintain a sustainable competitive advantage over the competition. The TMTBI provides the necessary ingredients for the conception and implementation of such strategies.

TMTBI can be beneficial in making sense of the complex strategic decision-making process as the TMT members share their tacit and explicit knowledge in a collaborative way. As Walsh (1995) pointed out, teams do not have collective cognitive powers, as the collective mind may imply; rather, it is the individual who possesses the necessary knowledge. A collaborative environment is therefore necessary in order to exploit the cognitive powers of the individual TMT members. To achieve this, the team has to work together as a cohesive unit, and a feeling of teamness must prevail as team members share the information that comes from both internal and external networks and make joint decisions. As Mintzberg, Raisinghani, and Theoret (1976) pointed out, decisions such as those associated with developing strategy are complex, ambiguous, and multifaceted. TMTBI enables the TMT to cope with such decisions as they share information and make decisions in a collaborative manner.

The presence of large social networks may have a negative effect on collaboration, as the TMT members may spend too much time in communicating with the other actors, thereby reducing the time for collaboration between the TMT members. The same effect would result in cases where the range is too diverse, thereby reducing the need for collaborative behavior and the feeling of belonging to the group. The strength of network ties, on the other hand, would be enhanced as the TMT members share information from different others within the network. This research sheds light on the level of network size, range, and strength of ties that add most value to both organizational performance and the TMTBI. The hypotheses developed in the previous section on TMT social networks would fit the above argument, with an additional position taken in this research that TMTBI will lead to higher firm performance. A TMT that is behaviorally integrated will perform better than one that is not integrated because such a team will not only share the information that the team gathers from both the internal and external environments, through their network ties, but the team members will work in a collaborative manner and make joint decisions, thereby increasing the quality of the decisions.

Performance in the Family Firm

In family firms, as in most privately help companies, there is a high level of reluctance to provide sensitive financial information. Also, the data may not be comparable to other family firms because each family firm may follow different accounting procedures. According to the economic theory of the family, the pursuit of satisfaction is the family's purpose (Stafford, Duncan, Dane, Winter, & Kaye, 1999). Therefore, financial performance may not be the only motivating factor in the family business. Family business literature reports that family values often influence business decision making and sometimes such values are deemed more important than economic concerns (Prokesch, 1996). Subjective performance data to supplement performance measurement has been widely used (Dess & Robinson, 1984).

For the purpose of this study, the following subjective measures of performance were chosen. The respondents were asked to rate, using a 5-point Likert-type scale (1 = *poor* to 5 = *outstanding*). their family firm's performance relative to the major competitors in their industry over the previous 3 years. The measures were as follows:

1. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's sales growth rate? (The use of such measures as sales growth as a financial performance measure is well established in the study of family business (Daily & Thompson, 1994; Donckels & Lambrecht, 1999.)

2. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's overall financial performance?

3. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's level of profitability?

4. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's growth in market share?

5. How would you characterize your firm's financial performance in the last 3 years, relative to your planned financial goals?

H8. *Social capital will be positively associated with firm performance.*

H9. *TMTBI will be positively associated with firm performance.*

The Research Models

The research model represents the area under study: the relationships among founder centrality, TMT internal and external social networks, TMTBI, and firm performance. The model has been divided to provide more clarity to the relationships proposed in the hypotheses. Model 1 (Figure 8) shows the relationship between founder centrality and TMTBI and the moderating effects that the family power and culture influence have on that relationship. The model also represents the relationship between the founder and the level of family power and culture influences.

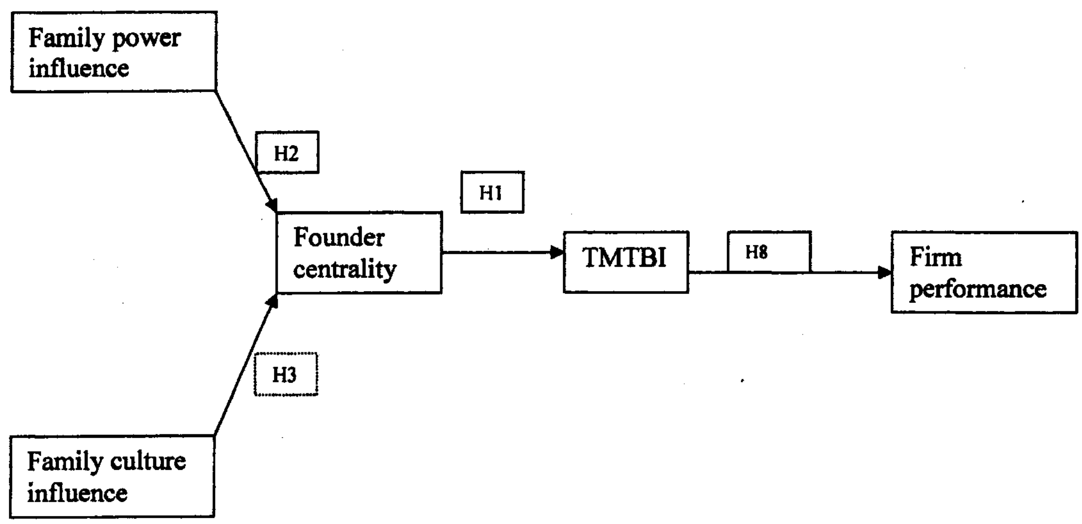

Figure 8. Research model 1: Founder centrality and family power and culture influence (TMTBI = top management team behavior integration).

Quality information is vital for superior managerial decision making, so social networks have become an important managerial tool in collecting novel information from the environment (both within and without) that enables the firm to align its competitive strategies with environmental demands and thus enable it to gain a competitive advantage to improve firm performance. Model 2 (Figure 9) represents the relationships between founder centrality and TMT social networks' size, range, and strength of ties. It also represents the relationship between TMT social networks' size, range, and strength of ties and TMTBI. This model also shows the relationship between TMTBI and firm performance.

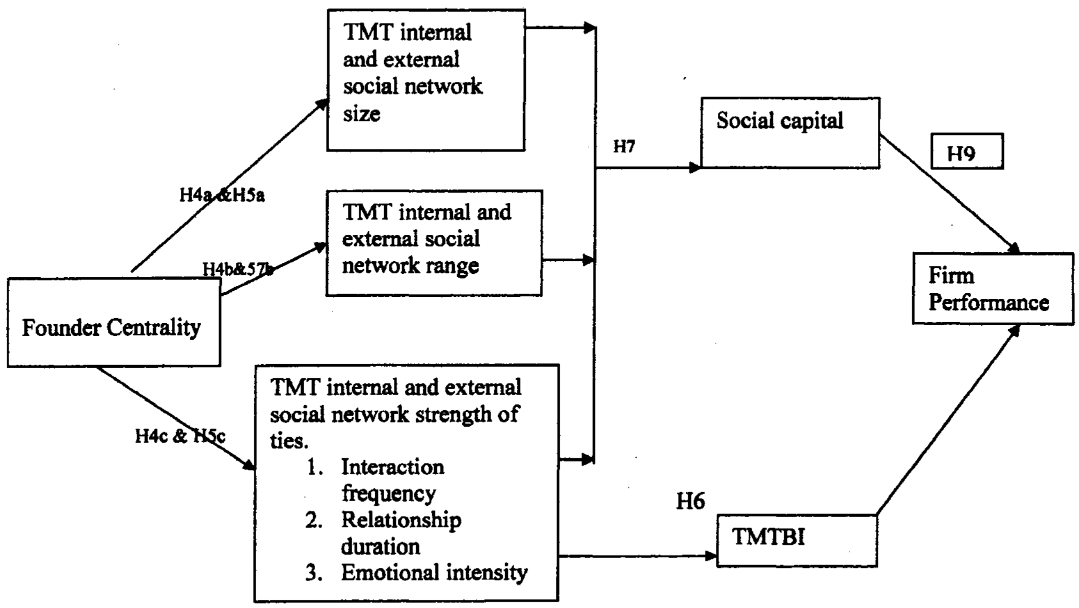

Figure 9. Research model 2: Founder centrality, top management team (TMT) social networks, and top management team behavioral integration (TMTBI).

The research questions were derived from the literature in social networks, corporate culture, and the researcher's interest in studying family business, especially the role of social networks in improving the family business' competitive position.

Research Questions

1. What is the relationship between founder centrality and TMTBI?

2. What is the relationship between FPI and founder centrality?

3. What is the relationship between FCI and founder centrality?

4. What is the relationship between founder centrality and TMT internal social networks' size, range, and strength of ties?

5. What is the relationship between founder centrality and TMT external social networks' size, range, and strength of ties?

6. What is the relationship between TMT social networks and TMTBI?

7. What moderating effect will social capital have on the relationship between TMT social networks and TMTBI?

8. What is the relationship between TMTBI and firm performance?

9. What is the relationship between social capital and firm performance?

Research Hypotheses

The following hypotheses were derived from the research questions and models.

H1. Founder centrality will be positively associated with TMTBI.

H2. The level of FPI will be positively associated with the level of founder centrality.

H3: The level of FCI will be positively associated with the level of founder centrality.

H4a. There will be an inverse relationship between founder centrality and TMT internal social network size.

H4b. There will be an inverse relationship between founder centrality and TMT internal social network range.

H4c. There will be a positive relationship between founder centrality and TMT internal social network strength of ties.

H5a. There will be an inverse relationship between founder centrality and TMT external social network size.

H5b. There will be an inverse relationship between founder centrality and TMT external social network range.

H5c. There will be a positive relationship between founder centrality and TMT external social network strength of ties.

H6. There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and TMTBI.

H7. There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and social capital .

H8. TMTBI will be positively associated with higher firm performance.

H9. Social capital will be positively associated with higher firm performance.

Chapter Summary

Founders of family businesses play an important role in the determining the success or failure of the business. The founder will continue to occupy that central and powerful position within the firm's management team. For that reason alone, it is imperative that more research be conducted to understand how the founder affects the strategic direction of the firm, culture formation, transmission, embeddedness, and TMTBI. The founder centrality concept goes a step further to examine both the systemic (macro) and relational (micro) levels of the effects of the founder on the family business.

Hypotheses for this study were developing with the thinking that the found is the most important person in the family business. Given the fact that a major part of the world's production capacity is in the hands of family business owners, it is imperative to understand how those who founded these businesses affect them, their effects have on the TMT internal and external contacts, and how this affects the level of behavioral integration among members of the TMT.

CHAPTER 3
RESEARCH METHODOLGY

This chapter describes the research methodology used in this study. The study utilized questionnaires to study the effects of founder centrality and TMT social networks on TMTBI. The methodology is addressed in terms of the following components: (a) research design, (b) research questions, (c) research hypotheses (independent, dependent, and moderator variables), (d) data collection and procedures, and (e) analysis of data.

The Research Design

The hypothesis tested in this study used primary data collected via questionnaires sent to family businesses across the United States. The researcher used instruments that had been utilized and validated by researchers in various studies.

The unit of analysis for this study was the TMT and the firm (on performance). The study focused on three levels of analysis of the TMT: (a) the effects of founder centrality on the TMTBI, with the family power and culture influence as moderating variables; (b) the effects of founder centrality on the TMT's internal and external social networks' size, range, and strength of ties; and (c) the effects of the TMT's size, range, and strength of ties on TMTBI. Such an approach organizes the study according to the three areas of inquiry that have previously been studied separately. Because this is the first study to look at the three areas together, this organization for analysis will aid in understanding the relationships being tested.

Research Questions

Nine research questions were developed for this study. These research questions were designed to investigate the relationships between founder centrality and TMT social networks and TMTBI in family businesses. Questions 4 and 5 had three hypotheses each, as the questions investigated the relationship between founder centrality and the size, range, and strength of ties of internal and external TMT social networks, respectively.

1. What is the relationship between founder centrality and TMTBI?

2. What is the relationship between FPI and founder centrality?

3. What is the relationship between FCI and founder centrality?

4. What is the relationship between founder centrality and TMT internal social networks' size, range, and strength of ties?

5. What is the relationship between founder centrality and TMT external social networks' size, range, and strength of ties?

6. What is the relationship between TMT social networks and TMTBI?

7. What moderating effect will social capital have on the relationship between TMT social networks and TMTBI?

8. What is the relationship between TMTBI and firm performance?

9. What is the relationship between social capital and firm performance?

The following hypotheses were derived from the research questions and models.

H1. Founder centrality will be positively associated with TMTBI.

H2. The level of FPI will be positively associated with the level of founder centrality.

H3: The level of FCI will be positively associated with the level of founder centrality.

H4a. There will be an inverse relationship between founder centrality and TMT internal social network size.

H4b. There will be an inverse relationship between founder centrality and TMT internal social network range.

H4c. There will be a positive relationship between founder centrality and TMT internal social network strength of ties.

H5a. There will be an inverse relationship between founder centrality and TMT external social network size.

H5b. There will be an inverse relationship between founder centrality and TMT external social network range.

H5c. There will be a positive relationship between founder centrality and TMT external social network strength of ties.

H6. There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and TMTBI.

H7. There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and social capital.

H8. TMTBI will be positively associated with higher firm performance.

H9. Social capital will be positively associated with higher firm performance.

Dependent Variables

There were six dependent variables in this study: TMTBI, founder centrality, TMT internal social networks, TMT external social networks, social capital, and firm performance. The conceptual and operational definitions of each variable are presented, and the dimensions of each variable are described.

TMTBI

Conceptual definition. Behavioral integration is a meta-construct first defined by Hambrick (1994) as "the degree to which the group engages in mutual and collective interaction" (p. 188). This construct is meant to capture three key interrelated and reinforcing elements of the TMT process: (a) the team's level of collaborative behavior, (a) the quantity and quality of information exchanged, and (c) an emphasis on joint decision making.

Operational definition. Behavioral integration is a construct that was measured using three dimensions that measure the teams' information exchange, collaborative behaviors, and joint decision making. The three are measured using four previously validated scales. A team-level scale comprised of 18 items was developed using these validated scales to measure the three theorized dimensions of TMTBI (Ling, 2004). These items were measured on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*).

The first dimension is *information exchange,* which refers to both the quality (richness, timeliness, and accuracy) and quantity of information exchange behaviors among TMT members. This dimension was measured by the first six items in the questionnaire. The first three items were adapted from the scale of TMT communication by Smith et al. (1994) but originally developed by M. E. Shaw (1964) and Ruekert and Orville (1987). The respondents were asked to gauge the extent to which the members of the TMT (a) have frequent face-to-face meetings, (b) have frequent written communication, and (c) can get sufficient information from each other. The other three items, dealing with timeliness, accuracy, and richness of the exchange, were adapted from Frone and Major's (1988) scale of communication quality. The respondents were asked gauge the extent to which the members of the TMT (a) can rely on information from each other, (b) have frequent phone conversations, and (c) get information from each other when it is needed.

The second dimension is *collaborative behavior.* For this dimension, the researcher borrowed and slightly modified eight items from Chatman and Flynn (2001) and Mooney (2000). The respondents were asked the extent to which the members of the TMT (a) are mutually responsible for decisions, (b) highly cooperate with each other, (c) make suggestions to each other, (d) are willing to sacrifice their self-interest for the benefit of the team, (e) often volunteer to help those members who are busy to manage their workload, (f) are willing to help each other meet deadlines, (g) are flexible about switching responsibilities to make things easier for each other, and (h) often volunteer to help those members who are busy to manage their workload.

The third dimension is *joint decision making.* This dimension was measured with the next five items, borrowed from Glick, Huber, Miller, Doty, and Sutcliffe (1990) and Mooney (2000). The respondents were asked the extent to which members of the TMT (a) usually discuss their expectations of each other, (b) have a clear understanding of the job and problems and needs of other team members, (c) usually let each other know when their actions affect another team member's work, (d) actively participate in determining the entry into new markets, and (e) actively participate in changing policies that affect a major portion of the firm. Ling (2004) and Mooney

(2000) content validated the items by asking a panel of 12 scholars and eight experts, respectively, who were familiar with upper echelons literature to independently categorize each item on a scale of 18 as to whether it was information exchange, collaboration, or joint decision making. The items were categorized with an agreement level of 90%. To test the reliability of the survey items, Cronbach coefficient alpha was used.

Founder Centrality

Conceptual definition. In social network theory, power is a fundamental property of social structures. The person or actor who is central is a network is the one through whom others must go for connections to others or for advice, information, or other organizational resources. Such an actor is said to have high degree centrality because he/she in involved in many ties (Wasserman & Faust, 1999). Founder centrality exists when the members of the TMT must go to the founder for advice before making important strategic decisions (Kelly et al., 2000) and for information that they might need in the course of running the organization.

Operational definition. Founder centrality is a social construct that measures how central the founder is within the TMT social network. The respondents were asked to indicate (using a 5-point Likert-type scale of 1 = *never* to 5 = *most often*) the person from whom they seek advice on strategic decisions. The respondent was asked to list the first name of the founder, the CEO (if different from the founder), and the other TMT members and then to correspond the responses to the first names listed, using the scale. Centrality was measured using UCINET® software (Borgatti, Everret, & Freeman, 1999), which is a social network statistical package. The levels of founder degree centrality was then input into SPSS® and correlated with TMT social network size, range, strength of ties, TMTBI, FCI, and FPI to test the relationships posited in hypotheses 1, 3, 4a, 4b, 4c, 5a, 5b, and 5c.

TMT Internal Social Networks

Conceptual definition. Internal social networks are defined as a set of nodes (actors) inside the organization and the set of ties representing some relationship, or lack thereof, between the nodes.

Operational definition. Internal social networks refer to the sets of relationships that the TMT has with others within the organization. These networks differ in size (number of contacts), range (diversity of the contacts), and the strength of ties. Three elements of internal social networks were considered: (a) network size, (b) network range, and (c) strength of the ties in the network.

1. *Network size* refers conceptually to the number of contacts in a TMT social network. More contacts indicate a larger network size (Burt, 1982). Operationally, each member of the network was asked to report the total number of his/her contacts in each of the six internal categories (sales and marketing, finance, research and development, production and operations, internal board members, and "other internals"). To create a company score for the network size, the number of social ties across the internal categories for each TMT were summed and then divided by the number of respondents. Networks with 1-2 contacts were classified as small, networks with 2.1-4 contacts were classified as medium size, and networks with 4.1-6 contacts were classified as large.

2. *Network range* refers conceptually to the number of links to different others. It refers to the *diversity* of contacts in the TMT social network. Network range was measured as the number of separate groups or actors that a network accesses. It is the

proportion of the internal contacts to which the TMT is linked to by at least one member. Internal networks with 1-2 links were classified as narrow, those with 3-4 links were classified as medium, and those with 5-6 links were classified as wide.

3. Strength of ties is a measure of the closeness of the actors and the amount and level of intimate exchanges that take place. More sensitive information is passed mostly through strong ties, where trust and trustworthiness lead to tie stability. Strong ties are those that are long in duration, exercised frequently, and emotionally close (Granovetter, 1973). Operationally, strength of ties was measured by three components: interaction frequency, relationship duration, and emotional intensity (closeness of a bond). The individual strength was measured by linear combination of the standardized scores of the three components of the score: (a) interaction frequency, (b) relationship duration, and (c) emotional intensity. The TMT tie strength score was the average of the respondent's scores.

Interaction frequency was calculated as the average number of times per month that a TMT member interacts with the identified contact. The average interaction frequencies of each TMT member were aggregated to the group level to form a measure of the mean of interaction between the TMT and its network. A frequency of 1-4 times was classified as low interaction frequency, 4.1-8 times per month as medium interaction frequency, and 8.1 or more times per months as high interaction frequency.

Relationship duration was measured on the basis of the TMT member's response to the question, "On average, how long have you known these critical contacts?" Measured in years, the average duration of contacts of the TMT members were aggregated to the group level to provide a measure of the TMT relationship duration. A duration of 1-3 years was classified as short, a duration of 3.1-6 years was classified as medium, and a duration of 6.1 or more years was classified as long.

Emotional intensity was measured by TMT members' answers to the question, "On average, how close is your relationship with these critical contacts in the network?" A 5-point Likert-type scale was applied for this question (1 = *not close at all* to 5 = *extremely close*). Emotional intensity was aggregated to the group level to provide a measure of TMT ties strength. Scores of 1-2.33 were classified as low intensity, scores of 2.34-3.66 were classified as medium intensity, and scores of 3.67-5 were classified as high intensity.

Strong ties were described as having longer relationship duration, higher interaction frequency, and higher emotional intensity. Weak ties were described as having shorter relationship duration, lower interaction frequency, and lower emotional intensity.

TME External Social Networks

Conceptual definition. External social networks are defined as a set of nodes (actors) outside the organization and the set of ties representing some relationship, or lack thereof, between the nodes.

Operational definition: External social networks referred to the sets of relationships that the TMT has with others outside the organization who hold information that is of potential value to the enterprise. Three elements of external social networks were considered: (a) network size, (b) network range, and (c) strength of the ties in the network.

Elements for the external networks were operationally defined in the same way as for internal networks. External networks with 1-4 contacts were classified as small, networks with 4.1-9 contacts were classified as medium size, and networks with 9.1-14 contacts were classified as large. External networks with 1-4 links were classified as narrow, those with 5-9 links were classified as medium, and those with 10-14 links were classified as wide.

Social Capital

Conceptual definition. Social capital has been defined as the aggregate of resources embedded within, available through, and derived from the network of relationships possessed by an individual, a group, or an organization (Coleman, 1988; Liao & Welsch, 2005; Nahapiet & Ghoshal, 1998).

Operational definition. The researcher borrowed and modified social capital measurement items from Subramaniam and Youndt (2005). The respondents were asked to indicate (using a 5-point Likert-type scale of 1 = *strongly disagree* to 5 = *strongly agree*) the extent to which they agreed or disagreed with each of the following statements.

1. Members of our top management team are skilled at collaborating with each other to diagnose and solve problems.

2. Members of our top management team interact and exchange ideas with people in different areas of the company.

3. Members of our top management team interact and exchange information with people outside our company.

4. Members of our top management team partner with customers, suppliers, alliance partners, etc. to develop solutions.

5. Members of our top management team apply knowledge from one area of the company to problems and opportunities that arise in another part of the company.

6. Members of our top management team apply knowledge from their external contacts to problems and opportunities that arise in our company.

7. Members of our top management team share information and learn from one another.

Firm Performance

Conceptual definition. Firm performance is the overall firm performance as measured by various measures that are accepted as good and valid measures of performance.

Operational definition. In family business and, indeed, in most privately held companies, there is a reluctance to release sensitive financial information. Because of this, the present study used subjective measures of performance to supplement performance measures (Dess & Robinson, 1984). The use of such measures as sales growth as a financial performance measure is well established in the study of family business (Daily & Thompson, 1994; Donckels & Lambrecht, 1999). Using a 5-point Likert-type scale (1 = *poor* to 5 = *outstanding*), the respondents were asked to rate their family firm's performance relative to the major competitors in their industry over the previous 3 years.

1. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's sales growth rate?

2. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's overall financial performance?

3. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's level of profitability?

4. Compared to the major competitors in your industry in the last 3 years, how would you rate your firm's growth in market share?

5. How would you characterize your firm's financial performance in the last 3 years, relative to your planned financial goals?

Independent Variables

There were seven dependent variables in this study: founder/CEO centrality, FPI, TMT internal social networks, TMT external social networks, FCI, TMTBI, and social capital. The conceptual and operational definitions of each variable are presented, and the dimensions of each variable are described.

Founder/CEO Centrality

Conceptual definition. In social network theory, power is a fundamental property of social structures. The person or actor who is central in a network is the one through whom others must go for connections to others or for advice, information, or other organizational resources. Such an actor is said to have high degree centrality because he/she in involved in many ties (Wasserman & Faust, 1999). Founder/CEO centrality exists when the members of the TMT must go to the founder for advice before making important strategic decisions (Kelly et al., 2000) and for information that they might need in the course of running the organization.

Operational definition. Founder/CEO centrality is a social construct that measures how central the founder is within the TMT social network. The respondents were asked to list the first names of the founder, CEO (if different from the founder), and other members of the TMT. They were then asked to indicate how often they seek advice on strategic decisions from each of those listed, using a 5-point Likert-type scale (1 = *never* to 5 = *most often*).

Centrality was measured using the UCINET® software (Borgatti et al., 1999), which is a social network statistical package. The levels of founder degree centrality were input into SPSS® and correlated with TMT social network size, range, strength of ties, TMTBI, FCI, and FPI to test the relationships posited in hypotheses 1, 3, 4a, 4b, 4c, 5a, 5b, 5c, and 7.

Family Power Influence

Conceptual definition. FPI assesses the degree of overall family influence or dominance of the family business, either in the hands of the family members or in those named by the family (Klein et al., 2005).

Operational definition. FPI was measured using the F-PEC family influence power scale developed by Klein et al. (2005). The respondents were asked to indicate the proportion or percentage of business ownership held by the family members and by nonfamily members, how many members of the governance board were family members and how many were not, and how many members of the governance board were family members and how many were not. The higher the percentage of family ownership and the number of family members in the governance board and management board, the higher the level of FPI.

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3. *Strength of ties* is a measure of the closeness of the actors and the amount and level of intimate exchanges that take place. More sensitive information is passed mostly through strong ties, where trust and trustworthiness lead to tie stability. Strong ties are those that are long in duration, exercised frequently, and emotionally close (Granovetter, 1973). Operationally, strength of ties was measured by three components: interaction frequency, relationship duration, and emotional intensity (closeness

of a bond). The individual strength was measured by linear combination of the standardized scores of the three components of the score: (a) interaction frequency, (b) relationship duration, and (c) emotional intensity. The TMT tie strength score was the average of the respondent's scores.

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Relationship duration was measured on the basis of the TMT member's response to the question, "On average, how long have you known these critical contacts?" Measured in years, the average duration of contacts of the TMT members were aggregated to the group level to provide a measure of the TMT relationship duration. A duration of 1-3 years was classified as short, a duration of 3.1-6 years was classified as medium, and a duration of 6.1 or more years was classified as long.

Emotional intensity was measured by TMT members' answers to the question, "On average, how close is your relationship with these critical contacts in the network?" A 5-point Likert-type scale was applied for this question (1 = *not close at all* to 5 = *extremely close*). Emotional intensity was aggregated to the group level to provide a measure of TMT ties strength. Scores of 1-2.33 were classified as low intensity, scores of 2.34-3.66 were classified as medium intensity, and scores of 3.67-5 were classified as high intensity.

Strong ties were described as having longer relationship duration, higher interaction frequency, and higher emotional intensity. Weak ties were described as having shorter relationship duration, lower interaction frequency, and lower emotional intensity.

TME External Social Networks

Conceptual definition. External social networks are defined as a set of nodes (actors) outside the organization and the set of ties representing some relationship, or lack thereof, between the nodes.

Operational definition: External social networks referred to the sets of relationships that the TMT has with others outside the organization who hold information that is of potential value to the enterprise. Three elements of external social networks were considered: (a) network size, (b) network range, and (c) strength of the ties in the network.

Elements for the external networks were operationally defined in the same way as for internal networks. External networks with 1-4 contacts were classified as small, networks with 4.1-9 contacts were classified as medium size, and networks with 9.1-14 contacts were classified as large. External networks with 1-4 links were classified as narrow, those with 5-9 links were classified as medium, and those with 10-14 links were classified as wide.

Family Culture Influence

Conceptual definition. FCI is the influence that the family has on the business culture of the family business. According to Koiranen (2002, p. 185), "Values demonstrate what the family and their business regard as important." What is important to the family usually forms the basis of the evolution of firm culture in a family business. According to Klein et al. (2005), the F-PEC scale seeks the views of owners and managers on the extent to which their family and business values overlap as well as the family's commitment to the family business.

Operational definition. FCI was measured using the F-PEC culture influence subscale developed and validated by Klein et al. (2005). The scale has 12 items measured on 5-point Likert-type scales. The first three items measure the family and business value overlap. Respondents used a 5-point Likert-type scale of 1 = *not at all* to 5 = *to a large extent* to indicate the extent of applicability of the following statements: (a) Your family has influence on your business, (b) Your family members share similar values, and (3) Your family and business share similar values. The next nine items captured the family commitment to the family business. Respondents used a 5-point Likert-type scale of 1 = *strongly disagree* to 5 = *strongly agree* indicate the extent to which they agreed or disagreed with the following statements: (a) Family members support the family business in discussions with friends, employees, and other family members; (b) Family members feel loyalty to the family business; (c) Family members are proud to tell others that we are a part of the business; (d) There is so much to be gained by participating with the family business on a long-term basis; (e) Family members agree with the family business plans, goals, and policies; (f) Family members care about the fate of the family business; (g) Deciding to be involved with the family business has a positive influence on my life; (h) I understand and support my family's decisions regarding the future of the family business; and (i) Family members are willing to put in a great deal of effort beyond that normally expected to help the family business be successful. A reliability test using Cronbach's alpha was performed to test the responses to the 12 items on this scale.

TMTBI

Conceptual definition. Behavioral integration is a meta-construct first defined by Hambrick (1994) as "the degree to which the group engages in mutual and collective interaction" (p. 188). This construct is meant to capture three key interrelated and reinforcing elements of the TMT process: (a) the team's level of collaborative behavior, (a) the quantity and quality of information exchanged, and (c) an emphasis on joint decision making.

Operational definition. Behavioral integration is a construct that was measured using three dimensions that measure the teams' information exchange, collaborative behaviors, and joint decision making. The three are measured using four previously validated scales. A team-level scale comprised of 18 items was developed using these validated scales to measure the three theorized dimensions of TMTBI (Ling, 2004). These items were measured on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*).

The first dimension is *information exchange,* which refers to both the quality (richness, timeliness, and accuracy) and quantity of information exchange behaviors among TMT members. This dimension was measured by the first six items in the questionnaire. The first three items were adapted from the scale of TMT communication by Smith et al. (1994) but originally developed by M. E. Shaw (1964) and Ruekert and Orville (1987). The respondents were asked to gauge the extent to which the members of the TMT (a) have frequent face-to-face meetings, (b) have frequent written communication, and (c) can get sufficient information from each other. The other three items, dealing with timeliness, accuracy, and richness of the exchange, were adapted from Frone and Major's (1988) scale of communication quality. The respondents were asked gauge the extent to which the members of the TMT (a) can rely on information from each other, (b) have frequent phone conversations, and (c) get information from each other when it is needed.

The second dimension is *collaborative behavior.* For this dimension, the researcher borrowed and slightly modified eight items from Chatman and Flynn (2001) and Mooney (2000). The respondents were asked the extent to which the members of the TMT (a) are mutually responsible for decisions, (b) highly cooperate with each other, (c) make suggestions to each other, (d) are willing to sacrifice their self-interest for the benefit of the team, (e) often volunteer to help those members who are busy to manage their workload, (f) are willing to help each other meet deadlines, (g) are flexible about switching responsibilities to make things easier for each other, and (h) often volunteer to help those members who are busy to manage their workload.

The third dimension is *joint decision making.* This dimension was measured with the next five items, borrowed from Glick et al. (1990) and Mooney (2000). The respondents were asked the extent to which members of the TMT (a) usually discuss their expectations of each other, (b) have a clear understanding of the job and problems and needs of other team members, (c) usually let each other know when their actions affect another team member's work, (d) actively participate in determining the entry into new markets, and (e) actively participate in changing policies that affect a major portion of the firm. Ling (2004) and Mooney content validated the items by asking a panel of 12 scholars and eight experts, respectively, who were familiar with upper echelons literature to independently categorize each item on a scale of 18 as to whether it was information exchange, collaboration, or joint decision making. The items were categorized with an agreement level of 90%. To test the reliability of the survey items, Cronbach coefficient alpha was used.

Social Capital

Conceptual definition. Social capital has been defined as the aggregate of resources embedded within, available through, and derived from the network of relationships possessed by an individual, a group, or an organization (Coleman, 1988; Liao & Welsch, 2005; Nahapiet & Ghoshal, 1998).

Operational definition. The researcher borrowed and modified social capital measurement items from Subramaniam and Youndt (2005). The respondents were asked to indicate (using a 5-point Likert-type scale of 1 = *strongly disagree* to 5 = *strongly agree*) the extent to which they agreed or disagreed with each of the following statements.

1. Members of our top management team are skilled at collaborating with each other to diagnose and solve problems.

2. Members of our top management team interact and exchange ideas with people in different areas of the company.

3. Members of our top management team interact and exchange information with people outside our company.

4. Members of our top management team partner with customers, suppliers, alliance partners, etc. to develop solutions.

5. Members of our top management team apply knowledge from one area of the company to problems and opportunities that arise in another part of the company.

6. Members of our top management team apply knowledge from their external contacts to problems and opportunities that arise in our company.

7. Members of our top management team share information and learn from one another.

Control Variables

Two control variables were recognized in this study. Each is conceptually and operationally defined.

Firm Size

Conceptual definition. The size of a firm can be measured in terms of the number of employees or the total revenue dollars.

Operational definition. The size of the firm can affect performance through economies of scale, monopoly power, and bargaining power. Size was measured in terms of the number of full-time employees, classified as small (25-500 full-time employees) or medium (501-1,500 full-time employees).

TMT Size

Conceptual definition. TMT size can be measured in terms of the number of TMT members in the organization.

Operational definition. There were to inclusion criteria for this aspect of the study. First, the family business had to have at least three TMT members. Second, at least 50% of the TMT members identified had to respond to the survey.

Research Strategy

This strategic management research study examined the relationships among founder centrality, TMT social networks, TMTBI, and firm performance. The study utilized correlation measurements (regression analysis) to assess these relationships in family businesses in the United States. The framework was developed as an extension of the founder centrality (Kelly et al., 2000) concept to include the TMT social networks. The framework drew on various research streams that previously had been studied independently.

Data Sources

The data were collected in the United States from small and medium size family businesses. A list of 1,000 businesses was generated from various sources, including Click Data©; chambers of commerce in Atlanta, Georgia, and San Diego; and Small Business Administration databases. Primary data were collected through questionnaires sent to the companies under study.

Data Collection

Data were collected using a random sample of the databases of the lists provided from the data sources. Every 10th entry was picked to ensure randomness. Data were collected via questionnaires sent to 1,1186 small and medium-size family enterprises across the United States. Two questionnaires were used to collect the data. The first questionnaire was sent to the CEO/founder to collect information on the firm's ownership structure, firm performance, and size. This questionnaire also included the questions about FCI. The CEO/founder was asked to distribute the second questionnaire to his/her TMT members. The second questionnaire captured network data, FCI data, and TMTBI data. Each questionnaire was accompanied by an introduction letter that explained the purpose of the study. Included was a return-addressed prepaid envelope to mail the completed surveys to the researcher.

Data Analysis

Correlation analysis was used to test for the relationships among the variables. The Pearson's *r* test, standard deviations, and arithmetic mean were the statistical methods used in the study. The type of data collected included nominal and interval data. The interval data were measured on 5-point Likert-type scales. Descriptive statistics were utilized for reporting frequencies, means and standard deviations. The following statistical measures were used in the study: Pearson's correlation coefficient *r* and multiple regression. Pearson's correlation coefficient was used to determine relationships among variables. Multiple regression was used to determine the predictive power of a set of independent variables on a dependent variable. Relationships between variables were tested at the .05 statistical significance level.

Chapter Summary

This chapter covered the research design, the research questions and hypotheses, the research variables and their conceptual and operational definitions, the research strategy, data sources, data collection, and data analysis procedures.

Chapter 4
RESEARCH FINDINGS

Chapter 4 presents the results of the data analysis of the study. The purpose of this study was to investigate the role played by family power and culture influence in determining the level of founder centrality, the effects that founder centrality has on the characteristics of TMT social networks, the effects that social networks have on TMTBI and social capital, and the effects that social capital and TMTBI have on firm performance in the family business. The statistical tests used in this study were Pearson's correlation coefficient and multiple regression. The significance level was set at .05. The research findings are presented and analyzed based on the research questions and the data are presented in tabular form followed by a brief description of the findings. A summary of the results is presented at the end of the chapter.

Survey Demographics

For this study, 1,186 were questionnaires were distributed by U.S. Postal Service mail and email to family businesses in the western and southeastern United States. A total of 131 companies responded, but only 109 response sets were used in data analysis. Of the total respondents, 9 had fewer managers than the cut-off point, 11 were not family businesses, and 2 had fewer employees than were required for participation in the study. Thus, the response rate was 11.04%. Of the companies considered in the data analysis, 51 had a founder and a CEO and 58 had a founder/ CEO. A total of 457 managers participated in the study.

Table 1 lists the descriptive statistics of the variables used in the study and Table 2 summarizes the correlation matrices of the variables.

Hypothesis Test Results

Research findings of the research questions and their corresponding hypotheses are presented and analyzed in this section. There were 9 research questions and hypotheses, with research questions and hypotheses 4 and 5 having three parts each. This section presents the results of the analysis; discussion of these findings is presented in chapter 5. Table 3 lists the results of the regression analysis of the first three hypotheses.

Research question 1: What is the relationship between founder centrality and TMTBI?

Hypothesis 1: Founder centrality will be positively associated with TMTBI.

It can be seen from Table 3 that, at .05 significance level, there is no relationship between the level of founder centrality and TMTBI. Therefore, hypothesis 1 was not supported.

Research question 2: What is the relationship between FPI and founder centrality?

Hypothesis 2: The level of FPI will be positively associated with the level of founder centrality.

Results in Table 3 show a significant relationship between the level of FPI and the level of founder centrality. Hypothesis 2 was supported at $p < .01$. Something

Table 1

Means and Standard Deviations of Variables (N = 109)

Variable	Min	Max	Mean	*SD*
Firm size (employees)	25	312	96.32	51.34
TMT size	3	8	4.14	0.86
Founder centrality	0.29	0.58	0.45	0.05
TMTBI	2.30	4.40	3.30	0.58
Social capital	2.30	4.45	3.40	0.47
FCI	2.23	5.00	3.84	0.52
FPI	1.45	3.00	2.44	0.37
Sizeintern	2.10	4.50	3.32	0.54
rangeintern	2.00	5.00	3.36	0.53
Sotintern	1.00	3.00	2.26	0.49
sizeextern	2.80	12.30	6.47	2.25
rangeextern	4.00	12.00	7.44	1.89
sotextern	1.00	3.00	2.05	0.62
Firm performance	2.10	4.80	3.50	0.69

Note. TMT = top management team, TMTBI = top management team behavioral integration, FCI = family culture influence, FPI = family power influence, sizeinter = internal social network size, rangeintern = internal social network range, Sotinter = internal network strength of ties, sizeextern = external social network size, rangeextern = external social network range, sotexter = external social network strength of ties.

Table 2

Correlation Matrix of Variables (N = 109)

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11
1 BI	3.3	.58											
2 FC	.45	.05	-.022										
3 FPI	2.44	.37	.041	.560**									
4 FCI	3.84	.52	.379**	.539**	.378**								
5 SC	3.40	.47	.652**	.026	-.044	.380*							
6 FP	3.5	.69	.623**	.023	.033	.437**	.509**						
7 Sizeintern	3.32	.54	.213*	-.464**	-.226**	-.083	.244**	.159					
8 Rangeinter	3.36	.53	-.095	-.390**	.297**	-.344**	-.073	.014	.415**				
9 Sotintern	2.26	.49	.214**	.266**	.192*	.504**	.477**	.495**	.036	-.177			
10 sizeexter	6.47	2.25	.043	-.318**	.262**	-.281**	.013	-.076	.346**	-.168	.208*		
11 rangeextern	7.44	1.89	.018	-.392**	-.126	-.340**	.039	-.075	.335**	.285**	-.229*	.642**	
12 sotextern	2.05	.62	.369**	.491**	.135	.367**	.415**	.396**	-.077	-.100	.468**	-.157	-.191

Note. TMTBI = Top management behavioral integration, FC = founder centrality, FPI = family power influence, FCI = family culture influence, SC = social capital, FP = firm performance, Sizeintern = Internal social network size, Rangeinter = internal social network range, Sotintern = internal social network strength of ties, sizeexter = external social network size, rangeextern = external social network range, sotextern = external social network strength of ties, N = number of respondents.

$^*p < .05$. $^{**}p < .01$.

Table 3

Results of Regression Analysis for Founder Centrality: Hypotheses 1, 2, and 3

Variable	TMTBI	FPI	FCI	FPI & PCI	SC	FP
Fonder centrality	.022	.560**	.539**	.662**	.026	.023
R^2	.000	.313	.291	.439	.001	.001
Adjusted R^2	-.009	.307	.284	.428	-.009	-.009
R^2 change	.000	.313	.291	.439	.001	.001
Beta				.382** .415**		
F	.500	48.77**	43.84**	41.39**	.070	.055
Hypothesis tested	1	2	3			

Note. TMTBI = Top management behavioral integration, FC = founder centrality, FPI = family power influence, FCI = family culture influence, SC = social capital, FP = firm performance.

**p* < .05. ***p* < .01.

systematic operates such that, as the level of FPI increases, the level of founder centrality also increases.

Research question 3: What is the relationship between FCI and founder centrality?

Hypothesis 3: The level of FCI will be positively associated with the level of founder centrality.

Results in Table 3 show a significant relationship between the level of FCI and the level of founder centrality. Something systematic operates such that, when the level of FCI increases, the level of founder centrality increases. Hypothesis 3 is supported at $p < .01$.

Table 4 presents the results of the regression analysis of hypotheses 4 and 5.

Table 4

Results of Regression Analysis for Founder Centrality: Hypotheses 4 and 5

	TMT internal networks Model 1			TMT external networks Model 2		
Variables	sizeintern	rangeinter	sotintern	sizeexter	rangeextern	sotextern
Founder centrality	-.464**	-.390**	.266**.	-.318**	-.392**	.491**
R^2	.215	.152	.071	.101	.154	.241
Adjusted R^2	.208	.144	.062	.093	.146	.234
F	29.34**	19.17**	8.16**	19.43**	12.04**	34.01**
Hypothesis tested	4a	4b	4c	5a	5b	5c

Note. Sizeintern = internal social network size, rangeinter = internal social network range, sotintern = internal network strength of ties, sizeexter = external social network size, rangeextern = external social network range.

*$p < .05$. **$p < .01$.

Research question 4: What is the relationship between founder centrality and TMT social network size?

Hypothesis 4a: There will be an inverse relationship between founder centrality and TMT internal social network size.

Results in Table 4 show a significant inverse relationship between the level on founder centrality and the size of the TMT internal social networks. Something systematic happens such that, when the level of founder centrality increases, the size of the TMT internal social networks decreases. Hypothesis 4a was supported at $p < .01$. Since the founder who is highly central has control of most of the communication and resource allocation in the family firm, the TMT members do not always see the need to form large networks.

Hypothesis 4b: There will be an inverse relationship between founder centrality and TMT internal social network range.

Results in Table 4 show a moderate inverse relationship between the level on founder centrality and the range of the TMT internal social networks. Something systematic happens such that, when the level of founder centrality increases, the range of the TMT internal social networks decreases. Hypothesis 4b was supported at $p < .01$. The necessity of having sources of information that are diverse diminishes as the founder becomes more central because the managers can always go to him/her for advice on a variety of issues.

Hypothesis 4c. There will be a positive relationship between founder centrality and TMT internal social network strength of ties.

Results in Table 4 show a moderate relationship between the level on founder centrality and the strength of ties of the TMT internal social networks. Something systematic happens such that, when the level of founder centrality increases, the strength of ties of the TMT internal social networks also increases. Hypothesis 4c was supported at $p < .01$. As the founder becomes more central, the TMT members of the family firm form stronger ties.

Research question 5: What is the relationship between founder centrality and TMT external social networks?

Hypothesis 5a: There will be an inverse relationship between founder centrality and TMT external social network size.

Results in Table 5 show a significant inverse relationship between the level on founder centrality and the size of the TMT external social networks. Something

Table 5

Results of Regression Analysis for Top Management Team Behavior Integration (TMTBI)

Variable	FPI	FCI	SC	FC	FP
TMTBI	.041	.379**	.652**	.022	.623**
R^2	.002	.144	.425	.000	.388
Adjusted R^2	-.008	.136	.420	-.009	.383
F	.181	17.96**	79.13**	.50	67.98**
Hypothesis tested				1	8

Note. FC = founder centrality, FPI = family power influence, FCI = family culture influence, SC = social capital, FP = firm performance.

*$p < .05$. **$p < .01$.

systematic happens such that, when the level of founder centrality increases, the size of the TMT external social networks decreases. Hypothesis 5a was supported at $p < .01$. Managers will most likely not feel the need to form large networks if they can get most of the information they need from the founder.

Hypothesis 5b: There will be an inverse relationship between founder centrality and TMT external social network range (external NW range).

Results in Table 4 show a significant inverse relationship between the level on founder centrality and the range of the TMT external social networks. Something systematic happens such that, when the level of founder centrality increases, the range of the TMT external social networks decreases. Hypothesis 5b was supported at $p < .01$. The same argument that applies to the internal networks applies to external networks because the TMT will most likely not go to many diverse groups of outside sources if they can get that information and advice from the founder.

Hypothesis 5c: There will be a positive relationship between founder centrality and TMT external social network strength of ties.

Results in Table 4 show a significant relationship between the level on founder centrality and the strength of ties of the TMT external social networks. Something systematic happens such that, when the level of founder centrality increases, the range of the TMT external social networks decreases. Hypothesis 5c was supported at $p < .01$. When the founder is highly central, TMT members form closer ties with their contacts outside the company as they try to collate the information that they get from the founder with information from other sources. As such, the strength of ties and founder centrality go in the same direction.

Research question 6: What is the relationship between TMT social networks and TMTBI?

Hypothesis 6: There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties with TMTBI.

This hypothesis was not tested because the number of respondents who fit the criteria for this hypothesis was very small and therefore no meaningful analysis statistical significance could be performed. However, the researcher zero-ordered correlations between each of the three criteria and TMTBI and the results are discussed in the additional findings section.

Research question 7: What is the relationship between TMT social networks and social capital?

Hypothesis 7: There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties with social capital.

The number of respondents who fit the criteria for this hypothesis was very small, and no meaningful analysis of statistical significance could be performed. However, the researcher zero-ordered correlations between each of the three criteria and social capital and the results are discussed in the additional findings section.

Table 5 lists the results of the regression analysis of hypothesis 8.

Research question 8: What is the relationship between TMTBI and firm performance?

Hypothesis 8: TMTBI will be positively associated with higher firm performance.

Results in Table 5 show a significant relationship between TMTBI and firm performance. Something systematic happens such that, when the level of TMTBI increases, the level of firm performance also increases. Hypothesis 8 was supported at $p < .01$. TMTBI plays a key role in the firms overall performance ($R^2 = .388$) and founders and other senior executives should therefore pay attention to the formation and maintenance of behaviorally integrated TMTs.

Table 6 lists the results of the regression analysis of the hypotheses 9.

Research question 9: What is the relationship between social capital and firm performance?

Hypothesis 9: Social capital will be positively associated with higher firm performance.

Table 6

Results of Regression Analysis for Social Capital

Variable	FPI	FCI	TMTBI	FC	FP
Social capital	.044	.380**	.652**	.026	.509**
R^2	.002	.145	.425	.001	.259
Adjusted R^2	-.007	.137	.420	-.009	.252
F	.205	18.10**	.79.13**	.070	37.41**
Hypothesis tested	2	3	1		9
Cronbach's Alpha		.84	.89		

Note. TMTBI = top management behavioral integration, FC = founder centrality, FPI = family power influence, FCI = family culture influence, FP = firm performance.

$*p < .05$. $**p < .01$.

Results in Table 5 show a significant relationship between social capital and firm performance. Something systematic happens such that, when the level of social capital increases, the level of firm performance also increases. Hypothesis 9 was supported at $p < .01$ level. Therefore, social capital is important for the overall performance of the family firm (R^2 = .259, Beta = .509).

Additional Findings

This section presents additional findings of the statistical analysis. Also, the researcher was puzzled at the failure to find a sufficient number of respondents who fit the criteria for hypotheses 6 and 7. The logic laid out by the researcher would have expected a sufficient number of firms whose networks were small, narrow in range, and characterized by strong ties. The researcher zero-ordered correlations for each of the three criteria without grouping them together in order to investigate relationships between each of them and TMTBI and social capital for both internal and external networks. Table 7 and Table 8 list the results of regression analysis for internal and external networks criteria, respectively, and TMTBI.

Table 7

Results of Regression Analysis for Network Criteria on Top Management Team Behavior Integration (TMTBI) Internal Networks

Variables	smInterNW	MdInterNW	NrangeInter	MdrangeInt	WktiesInt	StrongtiesInt
TMTBI	.165	.419**	.163	.063	.098	.214
R^2	.027	.175	.027	.004	.010	.046
Adjusted R^2	-.008	.163	.012	-.022	-.014	.031
N	30	69	69	41	44	65
F	0.779	14.23**	1.83	.157	.410	3.02

Note. SminterNW = small size internal networks, MdInterNw = medium size internal networks, NrangeInter = narrow range internal networks, MdrangeInt = medium range internal networks, WktiesInt = internal network weak ties, StrongtiesIn = internal network strong ties.

*$p < .05$. **$p < .01$.

Hypothesis 6 posited a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties with TMTBI. In investigating the reason for the lack of a sufficient number of respondents to fit these criteria, the researcher carried out zero order correlations for each of the criteria. Upon examination it was evident that there were sufficient numbers of respondents for each criterion but they were spread among firms with different network characteristics.

Table 8

Results of Regression Analysis for Network Criteria on Top Management Team Behavior Integration (TMTBI) External Networks

Variables	smExtNW	MdExterNW	NrangeExt	MdrangeExt	WktiesExt	StrtieExt
TMTBI	.004	.020	.064	.025	.357**	.224
R^2	.000	.000	.004	.001	.128	.050
Adjusted R^2	-.019	-.024	-.021	-.016	.113	.030
N	56	43	42	62	60	49
F	.001	.017	.164	.039	8.49**	2.48

Note. SmextNW = small size external networks, MdExterNW = medium size external networks, NrangeExt = narrow range external networks, MrangeExt = medium range external networks, WktiesExt = external network weak ties, StrtieExt = external networks strong ties.

$*p < .05$. $**p < .01$.

Therefore, the zero order correlations were more meaningful because the number of respondents increased for each combination.

Table 7 shows the results of the correlations between network size, range strength of ties, and TMTBI. The table also reports other statistics from simple regression that help to explain the magnitude of the correlations. As shown in Table 7, there are no significant relationships between the TMTBI and either small network size or narrow network range for internal networks. However, there is significant relationship between TMTBI and medium-sized internal social networks. Something systematic happens such that medium-sized internal TMT social networks lead to higher TMTBI. This relationship was significant at $p < .01$.

For the external networks, as indicated in Table 8, there is no significant relationship between networks that are small in size and TMTBI. There is also no significant relationship between external narrow range networks and TMTBI. Also, there is no significant relationship between external network strong ties and the level of TMTBI. However, there is a significant relationship between TMTBI and external social network weak ties. Something systematic happens such that the level of behavioral integration among the top management team is enhanced when the TMT members have weak ties with those in their external networks. As managers maintain weak ties with those outside the firm, they are most likely to collate the information from such ties with other TMT members; thus, behavioral integration is enhanced.

For hypothesis 7, the researcher ran correlations between social capital and small size, narrow range, and strong ties for both internal and external networks. The hypothesis predicted a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties and social capital. Results of correlations between social capital and internal and external social network small size, narrow range, and strong ties are shown in Table 9 and Table 10. The tables also report other statistics from simple regression that help to explain the magnitude of the correlations.

Results in Table 9 show no significant relationships between small size internal and external networks and social capital and no significant relationship between narrow range external networks and social capital. However, there was significant relationship between social capital and narrow range of internal social networks. Something systematic happens such that, when the range of internal TMT social networks is narrow, the level of social capital created is increased.

It is also evident from Table 9 that there is a significant relationship between social capital and internal social network strong ties. Something systematic happens

Table 9

Regression Analysis Results for Network Criteria on Social Capital Internal Networks

Variables	SmInterNW	MdInterNW	NrangeInter	MdrangeInt	WktiesInt	StrtiesInt
Social capital	.257	.294*	.269*	.105	.116	.576**
R^2	.066	.086	.072	.011	.013	.331
Adjusted R^2	.033	.073	.059	-.014	-.010	.321
N	30	69	69	41	44	65
F	1.97	6.32*	5.23*	.438	.570	31.20**

Note. Smi\InterNW = small size internal networks, MdInterNw = medium size internal networks, NrangeInter = narrow range internal networks, MdrangeInt = medium range internal networks, WktiesInt = internal network weak ties, StrtiesInt = internal network strong ties.

*$p < .05$. **$p < .01$.

Table 10

Regression Analysis Results for Network Criteria on Social Capital External Networks

Variables	SmExtNW	MdExtNW	NrangeExt	MrangeExt	WktiesExt	StrtiesExt
Social capital	.090	.027	.130	.049	.262*	.515**
R^2	.008	.001	.017	.002	.069	.265
Adjusted R^2	-.010	-.024	-.008	-.014	.053	.249
N	56	43	42	62	60	49
F	.437	.029	.682	.144	4.29*	16.95**

Note. SmExtNW = small size external networks, MdExtNW = medium size external networks, NrangeExt = narrow range external networks, MrangeExt = medium range external networks, WktiesExt = external network weak ties, StrtiesExt = external networks strong ties.

*$p < .05$. **$p < .01$.

such that, when the strength of ties of the internal social networks increases, the level of social capital created also increases. This relationship is supported at $p < .001$.

There is also a significant relationship between social capital and external social network strong ties. Something systematic happens such that, when the strength of ties in external social networks is strong, the level of social capital among the TMT created increases. This relationship is supported at $p < .01$.

Table 9 shows a moderate relationship between medium size internal networks and social capital. Something systematic happens such that, when internal networks are of medium size, the level of social capital created tends to increase. This correlation was significant at $p < .05$. This finding indicates that medium size networks are good conduits for social capital in internal networks.

Table 10 shows a moderate relationship between weak external social network ties and the level of social capital within the TMT social networks. Something systematic happens such that the level of social capital within the top management team social network is enhanced when TMT members have weak ties with those in their external networks. This is a result of the need to collate the information that they receive from the external contacts with the information from contacts inside the company; the frequency of communication, duration of relationships, and emotional ties are enhanced, thereby increasing the level of social capital.

The researcher also tested the relationship between TMTBI and social capital. The results are presented in Table 5 and 6. The results indicated a significant correlation between social capital and TMTBI ($R^2 = .425$, Beta = .652, $p < .001$). Something systematic happens such that, when the level of social capital within the TMT increases, the level of TMTBI also increases. This observation is especially important because the level of social capital formed or present among the TMT members will determine the level of TMTBI present between the team members.

The researcher tested the relationship between FPI and TMTBI (Table 5). The analysis revealed no significant relationship between FPI and TMTBI. The level of FPI in terms of ownership, governance, and managerial control did not affect the level of behavioral integration among members of the top management team.

However, as shown in Table 5, there is a significant relationship between FCI and TMTBI ($R^2 = .144$, Beta = .379, $p < .001$). Something systematic happens such that, when the level of FCI is high, the level of TMTBI also tends to be high. Unlike FPI, FCI affects the level of TMTBI. This means that FCI is much more important in shaping the behaviors of the TMT; if the family culture encourages collaboration, sharing of information among the family members, and joint decision making, then such practices are transferred from the family side of the system to the business side of the system, where a culture of behaviorally integrated TMT is developed. The founder plays a crucial role in ensuring that such behavior is developed and nurtured.

The researcher tested the relationship between FCI and social capital. Results shown in Table 5 show a significant relationship between FCI and social capital ($R^2 = .145$, Beta = .380, $p < .01$). Something systematic happens such that, when the level of FCI is high, the level of social capital also tends to be high. When the family culture has a profound influence on the corporate culture and if such influence encourages the sharing of resources and knowledge among those in the family business to solve organizational problems, building trust, and enhancing loyalty, then more social capital is created.

The researcher tested the correlation between FPI and family culture (Table 3). The relationship between these two was significant at $p < .01$. Something systematic happens such that, when the level of FPI is high, through ownership, governance, or management, the influence that family's culture has on the corporate culture of the family firm will also be high.

The researcher tested the relationship between certain characteristics of social networks and firm performance. Results presented in Table 11 show a significant relationship between strong internal ties and firm performance in the family business, $p < .01$. Something systematic happens such that, when the strength of ties between the members of the TMT in the family firm is strong, the level of firm performance tends to increase. As the TMT members build trust and obligations among themselves, they share sensitive information, use knowledge that they have acquired from other sources to help each other solve organizational problems, and exploit the resources embedded in their networks to improve the performance of the family firm.

The results indicate a moderate relationship between strong external ties and firm performance. Something systematic happens such that, when the TMT of the family firm has strong ties with those in their external social network, firm performance increases. The correlation is significant at $p < .05$.

These two findings on strong ties seem to affirm the view held by Krackhardt (1992b) that strong ties are needed to facilitate the exchange of sensitive and valuable information. The implication is that strong ties are important and play a part in the level of firm performance. Strong internal ties ($R^2 = .207$, Beta = .455) seem to play a much bigger role in performance that do strong external ties ($R^2 = .095$, Beta = .308). Results shown in Table 12 reveal that weak ties are also important for firm performance, where weak internal ties had a significant relationship with firm performance, $p < .05$. Table 13 shows that external ties also have a significant relationship with firm performance, $p < .01$. Thus, weak ties are important for firm

Table 11

Results of Regression Analysis for Firm Performance Network Characteristics on Firm Performance (N = 109)

	Internal networks Model 6			External networks Model 7		
Variables	sizeintern	rangeintern	sotintern	sizeextern	rangeextern	sotextern
FP	.159	.014	.495**	.076	.075	.396**
R^2	.025	.000	.246	.006	.000	.157
Adjusted R^2	.016	-.019	.238	-.004	-.004	.149
F	2.75	.020	34.82**	.615	.599	19.92**

Note. FP = firm performance, sizeintern = internal social network size, rangeintern = internal social network range, sotintern = internal network strength of ties, sizeextern = external social network size, rangeextern = external social network range, sotextern = external social network strength of ties.

*$p < .05$. **$p < .01$.

performance but external weak ties seem to play a much more important role (R^2 = .222, Beta = .472) than internal weak ties (R^2 = .110, Beta = .332).

This finding seems to confirm Granovetter's (1973) assertion that effective social coordination does not arise from densely interlocking strong ties but from the presence of occasional weak ties between individuals. Although the strong ties are also present and significant, in this case, the external weak ties seem to play a much more important role in determining the level of firm performance.

By looking at the strength of the relationship between both internal strong and weak ties with firm performance, it is evident that the relationship between strong internal ties and firm performance is much more significant, thereby confirming Krackhardt's (1992a) assertion that strong ties are needed in order to pass sensitive

Table 12

Results of Regression Analysis for Firm Performance, Model Network Criteria on Firm Performance: Internal Criteria

Variables	SmInterNW	MdInterNW	NrangeInter	MdrangeInt	WktiesInt	StrtiesInt
FP	.239	.164	.005	.028	.332**	.455**
R^2	.057	.027	.000	.001	.110	.207
Adjusted R^2	.023	.012	-.015	-.025	.089	.195
N	30	69	69	41	44	65
F	1.69	1.85	.001	.030	5.19**	16.47**

Note. FP = firm performance, SminterNW = small size internal networks, MdInterNw = medium size internal networks, NrangeInter = narrow range internal networks, MdrangeInt = medium range internal networks, WktiesInt = internal network weak ties, StrtiesInt = internal network strong ties.

$^*p < .05$. $^{**}p < .01$.

Table 13

Results of Regression Analysis for Firm Performance, Model Network Criteria on Firm Performance: External Criteria

Variables	SmExtNW	MdExtNW	NrangeExt	MrangeExt	WktiesExt	StrtiesExt
FP	.068	.070	.014	.006	.472**	.308*
R^2	.005	.005	.000	.000	.222	.095
Adjusted R^2	-.014	-.019	-.025	-.017	.209	.076
N	56	43	42	62	60	49
F	.250	.202	.008	.002	16.59**	4.94*

Note. FP = firm performance, SmExtNW = small size external networks, MdExtNW = medium size external networks, NrangeExt = narrow range external networks, MrangeExt = medium range external networks, WktiesExt = external network weak ties, StrtiesExt = external networks strong ties.

$^*p < .05$. $^{**}p < .01$.

and proprietary information between members of a social network. Both weak and strong ties are important and, therefore, as shown by the results of the analysis, both are needed for a company to fully exploit resources embedded in those social networks.

The researcher tested the relationship between firm performance and other variables not already covered by the hypotheses or network characteristics. These results are presented in Table 14. These results show no significant relationship between founder centrality and firm performance and no significant relationship between FPI and firm performance. The results show a significant relationship between FCI and firm performance. Thus, FCI affects firm performance, mostly because of the influence that it has on the formation and creation of the family firm's corporate culture, its influence on the formation of social capital, and the TMTBI.

Table 14

Results of Regression Analysis for Firm Performance

Variable	FPI	FCI	TMTBI	FC	SC
Firm performance	.033	.437**	.652**	.023	.509**
R^2	.001	.191	.425	.001	.259
Adjusted R^2	-.008	.184	.420	-.009	.252
F	.118	25.29	79.13	.055	37.41

Note. FPI = family power influence, FCI = family culture influence, TMTBI = Top management behavioral integration, FC = founder centrality, SC = social capital.

*$p < .05$. **$p < .01$.

Chapter Summary

This chapter presented the findings of the study. Hypothesis 1 was not supported but Hypotheses 2, 3, 4a, 4b, 4c, 5a, 5b, and 5c were supported. These findings indicate significant relationships among FPI, FCI, and founder centrality. The results also indicate an inverse relationship between founder centrality and network size and range for both internal and external TMT social networks. The results indicate a significant relationship between founder centrality and both internal and external strength of ties.

Hypotheses 6 and 7 were not tested because too few respondents fit the criteria specified in the hypotheses. Instead, zero-order correlations were done between TMTBI and social capital and each criterion specified in the hypotheses.

Hypotheses 8 and 9 were supported based on a significant relationship between TMTBI and firm performance and between social capital and firm performance.

Additional findings were also presented and briefly discussed. Discussion of findings and conclusions are presented in the next chapter.

CHAPTER 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the first four chapters of the study. It also discusses the implications of this research, the conclusions reached, and the recommendations made based on the results of the study.

Summary of Chapters 1 Through 4

This is a strategic management research study of founder centrality and TMT social network effects on TMTBI, social capital formation, and firm performance in the family business. The study also looks at how family influence in terms of power and culture affects the level of founder centrality. Past studies in family business have concentrated on areas such as succession, conflict resolution, financing, intergenerational differences, and other areas in family business that researchers have found to be unique to family businesses. This study brings mainstream strategic management theories, such as RBV, upper echelon, and social network theory, and combines them with recent family business research tools, such as F-PEC, to complement and extend the literature on TMT and introduce network research in family businesses.

This research is expected to extend understanding of social networks to the role played by the founder in the formation and maintenance of social networks by members of family business TMTs. Such an understanding would improve knowledge of the workings of the TMT networks as sources of social capital that enhance the level of collaboration, information sharing, and joint decision making by the TMT and subsequently lead to higher firm performance.

Chapter 1 introduced the research problem, the background to the research problem, the purpose of the study, and the definitions of terms used in this study. This research is based on the premises that the founder is the most important person in the family business and that the TMT is the most important group in the business. Thus, it is imperative to understand how these two factors interact with each other and with the dichotomous relationship of family and business systems. The balance of management attention to strategic and operating decisions, as Ansoff (1965) argued, is determined by the firm's internal and external environments, and the internal environment is ultimately created by the founder and the TMT. The balancing act that the founder has to do to balance family and business systems must be fully understood as the founder uses power and influence to mold the family firm's organizational culture.

The study of social networks in the family business is unique because of the overlap of values from the family and business systems. The founder's level of centrality affects this overlap. He or she is the one person who sits at the confluence of the two systems and, as such, he or she can determine the direction of the firm's culture and strategic outlook.

This study makes four contributions:

1. The study leads to better understanding of the socially complex internal and external networks and their effects on the TMTBI and social capital formation.

2. The study furthers understanding of the long-running debate in organizational theory in which two parallel arguments have been advanced on the contributions of strong and weak ties to the overall value of the firm. By looking at both internal

and external networks, the study can enhance understanding as to which network fits what strength level.

3. By looking at the TMTBI, social capital, and firm performance, this study brings in family dynamics to the social network perspective in an effort to understand how the presence of TMT social networks affects TMTBI and social capital formation. This is the first study to look at these three variables together.

4. Looking at the founder within the context of the TMT reveals the effects of the founder's structural position in the networks on the social network characteristics, TMTBI, and the formation of social capital.

5. This is the first study to look at the effects of family power and culture influence on founder centrality, social capital, TMTBI, and firm performance. As such, it can enhance understanding of the effects of levels of familial influence on the overall strategic posture of the firm.

Chapter 2 reviewed the literature that influenced the development of the research model, research questions, and hypotheses. The study looks at social network theory as it relates to the founder and TMT social networks, the RBV as it relates to the TMTBI, and top management theory (upper echelon) as it relates to the TMT. The study also looks at social capital as an embedded resource within the TMT social networks. To gauge the level of family influence in the family firm, the study utilizes the F-PEC (Klein et al., 2005) scale, which uses FCI and FPI.

The research model is divided into two sections: (a) family power and culture influence on the level of founder centrality, and (b) effects of the founder on the TMT social network characteristics and the effects of these characteristics on TMTBI and social capital and the relationships between TMTBI, social capital, and firm performance. These two models are depicted in Figures 8 and 9.

The research questions and hypotheses were developed as arguments were advanced and backed by the relevant literature. Research question 1 addressed the relationship between founder centrality and TMTBI. Research question 2 addressed the relationship between FPI and founder centrality. Research question 3 addressed the relationship between FCI and founder centrality. Research question 4 addressed the relationship between founder centrality and internal TMT social networks. Research question 5 addressed the relationship between founder centrality and external TMT social network. Research question 6 addressed the relationship between social networks that are small in size, narrow in range, and characterized by strong ties and TMTBI. Research question 7 addressed the relationship between social networks that are small in size, narrow in range, and characterized by strong ties and social capital. Research question 8 addressed the relationship between TMTBI and firm performance. Research question 9 addressed the relationship between social capital and firm performance. Hypotheses were formulated from these research questions and used to guide the inquiry.

Chapter 3 described the research methodology, including the research design, research strategy, variables in the study, and data collection and analysis procedure.

The dependent variables in the study were founder centrality, TMTBI, internal social networks, external social networks, and firm performance. The independent variables were FPI, FCI, founder centrality, internal social networks, external social networks, social capital, and TMTBI. The control variables were firm size and TMT size. Each of these variables was conceptually and operationally defined.

The data were collected from small and medium size family businesses via questionnaires distributed to CEOs or founders of 1,186 family businesses, chiefly on the east and west coasts of the United States. The list of business was generated through a combination of sources, including Click Data™, San Diego Chamber of Commerce, Los Angeles Chamber of Commerce, Irvine (CA) Chamber of Commerce, Metro Atlanta Chamber of Commerce, Orange County (CA) Chamber of Commerce, and *San Diego Business Tribune*'s list of the 2005 Annual Family Business Award nominees.

Two separate questionnaires were sent to each company. The first questionnaire was sent to the CEO/founder, soliciting information on ownership structure, governance, management control, and company size. The second questionnaire was designated for the TMT; each company received seven copies of this questionnaire.

To test the relationships among variables, correlation analysis was done. Pearson's *R* test, standard deviations, and arithmetic means were the statistical methods used in the study.

Chapter 4 presented the statistical analysis of the research questions and their related hypotheses. The findings in this chapter indicated moderate to significant relationships in founder centrality and social network characteristics, FPI, and FCI. The hypotheses addressing these relationships were all supported. The findings made it clear that the level of founder centrality was significantly associated with the level of FPI and FCI.

The summary of the key findings of this study are presented in Tables 3, 4, 5, and 6. These findings also indicated that the level of founder centrality in the family business had inverse relationships with size and range of both internal and external TMT social networks. It was also clear that the founder centrality was positively associated with strength of ties in both internal and external TMT social networks.

The findings indicated no significant relationship between founder centrality and the level of TMTBI. Thus, the hypothesis that predicted a relationship between founder centrality and TMTBI was not supported. When the founder is central, managers may find other ways to access information and resources; therefore, the level of founder centrality may not necessarily have an effect on the level of TMTBI.

Hypotheses 6 and 7 were not tested due to insufficient numbers of respondents who met the criteria set forth in the hypotheses. Hypothesis 6 predicted a relationship between social networks that were small in size, narrow in range, and characterized by strong ties and TMTBI. Hypothesis 7 predicted a relationship between social capital and social networks that were small in size, narrow in range, and characterized by strong ties. There were too few respondents who met the three criteria to justify statistical testing. The respondents with these criteria were spread over various combinations. However, in order to find out the relationships of these individual criteria and TMTBI and social capital, zero-order correlations were performed between each criterion and TMTBI and social capital, and the results were presented in the additional findings section of chapter 4.

Results revealed a significant relationship between TMTBI and firm performance, indicating that management should work to enhance behavioral integration among TMT members. It is a strategic asset that firms should always strive to enhance.

Results revealed a significant relationship between social capital and firm performance. Social capital can then be viewed as a strategic asset that firms should be striving to accumulate in order to improve their competitive advantage.

It is evident from the analysis that the founder is an important factor in determining characteristics of the networks formed by the TMT and that the level of family influence is important in determining the level of centrality of the founder.

Conclusions Based on the Findings

This section discusses the decisions regarding the research hypotheses based on the findings. The hypotheses and research questions are listed for convenience to connect the two with the discussion.

Research question 1: What is the relationship between founder centrality and TMTBI? Hypothesis 1: Founder centrality will be positively associated with TMTBI. This hypothesis was not supported and it was concluded that there is no significant relationship between founder centrality and TMTBI. This indicates that the founder's level of centrality does not necessarily affect the way in which TMT members share information, collaborate among themselves, or make decisions jointly. In family businesses, when the founder becomes too central, the TMT team members may find ways around the founder and, on their own, access resources and information. Thus, founder centrality level may not necessarily have an effect on the level of behavioral integration among TMT members.

Research question 2: What is the relationship between FPI and founder centrality. Hypothesis 2: The level of family FPI will be positively associated with the level of founder centrality. Based on results reported in Table 5, hypothesis 2 was supported. Something systematic happens such that when the level of FPI increases, the level of founder centrality also increases ($R^2 = .313$, Beta = .560, $p < .01$). The founder is the most important person in the family business; if the family owns all or a majority of the company, then the family will have more control of organizational resources, which gives the founder even more power and influence, thereby making the founder central in the family firm's strategic decision making process. Family power also gives the founder the power to appoint people for the TMT without undue influence from others. The founder place in positions of authority people who share his/her vision, thereby amplifying his centrality in the decision-making process. By having such a profound influence on the shape of the TMT and the strategic direction of the firm, the founder amasses even more direct power to control communication and resource allocation among the various parts of the organization.

Research question 3: What is the relationship between FCI and founder centrality? Hypothesis 3: The level of FCI will be positively associated with the level of founder centrality. This hypothesis was supported (R = .291, Beta = .539, $p < .01$). Something systematic happens such that, when the level of FCI increases, the level of founder centrality also increases. The literature (e.g., Harvey & Evans, 1994; Kets de Vries, 1996; Schein, 1983a, 1983b; Ward, 1990) reports that, during culture formation, the corporate culture of the family business is highly influenced by the personality, values, and beliefs of the founding generation.

The founder is the one person who sits at the confluence of the family and the business systems and, as he/she molds, creates, embeds, infuses, and transmits the family firm's culture, the influence of the family on the corporate culture makes the founder the most important person in the firm. As Denison at al. (2004) argued, the differentiating factor in family business lies in the fact that the behavior of family businesses emanates not from external pressure but from deeply ingrained, learned-at-the-dinner-table sense of history. As such, the founder has to instill his/her values and beliefs, as guided by the family culture, into the corporate culture of the family firm. Each family has its own values and beliefs and when these are transferred into the family business corporate culture, each family business assumes a distinct personality that can mean either success or failure of the family business, depending on the type of values that the founder instills.

The support of this hypothesis affirms the researcher's firm belief that the founder, given the level of family influence, is the most important person in the family business and, as such, should be studied and clearly understood in order to help the family firm to understand the importance of paying attention to the one person who can make or break it. The F-PEC model (Klein et al., 2005) explains this concept and gauges the level of "familiness" of the family firm.

Practitioners and consultants can use the results of this study to gauge the level of founder centrality based on the level of FCI to make adjustments to the communication and resource allocation process in order to add value to the overall efficiency and effectiveness of the family firm's operational and strategic outlook. By paying attention to those strategic human resource practices that balance founder centrality with founder's influence to infuse strategy into the rank and file of the family firm, the founder can instill values that enhance the overall effectiveness of the firm's strategies. The findings can be used to improve the family firm's competitive posture by having the right balance between the power of the founder, given his/her structural position in the TMT network, and the need for TMT members to seek information to make informed decisions without feeling obligated to go to the founder for advice on every strategic decision.

When FPI and FCI are correlated to founder centrality, the relationship is significant at $p < .01$. The resulting R = .439 indicates that almost 44% of founder centrality can be accounted for by FPI and FCI combined. This is an important finding because the very embryonic origins of firm culture and strategic orientation are tied to the founder, whose centrality is affected by the level of family power and culture influence.

Research question 4: What is the relationship between founder centrality and TMT social network size? Hypothesis 4a: There will be an inverse relationship between founder centrality and TMT internal social network size.

This hypothesis was supported (Table 4). Something systematic happens such that, when the level of founder centrality increases, the size of the TMT internal social network decreases. Founder centrality influences the size of the network; in this case, the size becomes smaller as the founder's centrality increases, indicating that the TMT members do not feel a need to form a large network because they can always get information from the founder.

This supports the literature in family business that established that family businesses tend to be inward looking. Such an observation would add value to the literature by enlightening practitioners and consultants about the need to pay attention to the strategic thinking of the founder because he/she can lead the firm into either disaster or success as he/she has the ability to put everyone in the TMT into what the researcher calls a "strategic straight jacket," where the only strategic orientation or thinking allowed is the one that is congruent with that of the founder. In this condition, the family firm could be left vulnerable to strategic surprises if the founder's strategic aggressiveness is not aligned with the environmental turbulence level being experienced by the family firm and the founder fails to develop within the TMT the management capabilities needed for that turbulence level. It is evident in family businesses that the children of founders who are in management positions are sometimes lacking in management capabilities and, as such, they become strategic liabilities instead of strategic assets. The risk of group think is always present when the sources of information and advice are too few and one among the few in the group dominates the thinking within the group.

Hypothesis 4b: There will be an inverse relationship between founder centrality and TMT internal social network range. This hypothesis was supported, indicating that something systematic happens such that, when the level of founder centrality increases, the range of the internal social network range decreases. When founder centrality is high, the members of the TMT do not feel the need to contact, communicate, or seek advice from many people because they can always go to the founder for advice. The same argument about network size fits into this finding. Lack of diversity in those with whom one communicates or from whom one seeks advice may be a strategic threat to the family business because there is a high risk of group think and, if the thinking is not in alignment with the environmental turbulence of the firm's industry, then the firm may become vulnerable to strategic surprises that could put the firm in strategic disadvantage vis-à-vis the competition. There is clear evidence from this finding that practitioners, consultants, and those in academia can encourage the founders of businesses to adopt targeted strategic human resource practices that enhance the level of diversity of the contacts that the TMT members have in order to increase the level of cognitive diversity among the TMT members. Even though this may encourage cognitive and even affective conflict within the TMT, it enriches the reservoir of knowledge from which these team members can draw as they make strategic decisions.

Hypothesis 4c: There will be a positive relationship between founder centrality and TMT internal social network strength of ties. This hypothesis was supported. Something systematic happens such that, when the level of founder centrality increases, the strength of the ties between members' TMT internal networks becomes stronger. When the founder is very central, the size of the TMT internal network becomes smaller and the range becomes narrower, as such those who are in the network form closer and stronger ties. The members of the TMT communicate more often, they tend to know each other longer, and they tend to feel emotionally closer to those within the company with whom they have ties. These TMT members feel the need to form a tightly knit network, sometimes with the intention of counteracting the power of the founder, sometimes to share information about ways to get around the founder to acquire resources, and sometimes to find ways to form a united front for or against those whom they feel may not be affectively and cognitively on the same wavelength as the founder. Such a scenario may produce both cognitive and affective conflicts, in which case it could be a tool to study the two phenomena. It could also be a strategic asset that could be unique to each family firm that can be exploited to give the firm a competitive advantage.

Research question 5: What is the relationship between founder centrality and TMT external social networks? Hypothesis 5a: There will be an inverse relationship between founder centrality and TMT external social network size. This hypothesis was supported. Something systematic happens such that, when the level of founder centrality increases, the size of the TMT external networks decreases. Since the founder is central and most managers go to him/her for advice on strategic and important decisions, the managers might not see the need to seek advice or information from persons outside the firm. Information gathering from external networks is very important if the firm is to align its strategic aggressiveness with the turbulence level of the environment in its industry; the only way for a firm to avoid strategic surprises is to have an active environmental surveillance practice. If the founder gets too central to a point of putting the TMT members in what the researcher calls a "strategic straight jacket," then there is a considerable risk of the firm "missing the boat" as the environment in the industry changes. That may mean that the firm could be late in developing needed management capability, fail to realize innovations of systems and processes to meet new environmental challenges, and fail to use the human capital effectively and efficiently.

Hypothesis 5b: There will be an inverse relationship between founder centrality and TMT external social network range. This hypothesis was supported. Something systematic happens such that, when the level of founder centrality increases, the range of the TMT external networks decreases. When founder centrality is high, members of the TMT not feel the need to contact, communicate, or seek advice from many people because they can always go to the founder for advice. This may result in a lack of diversity of the contacts that the TMT members have with those outside the firm.

Information theory (Galbraith, 1973; Tushman & Nadler, 1978) suggests that the ability of the firm to gather, process, and distribute information lessens the uncertainty facing the organization, resulting in better performance through better decision making and implementation. Thus, diversity of the TMT network plays a major role in gathering diverse information needed by the TMT to make strategic decisions. The founder should encourage strategic human resource practices that encourage the formation of diverse external social networks in order to take full advantage of the various sources of types of information that each TMT member may gain through contacts. If the founder is inward looking, this finding would serve as a warning that the founder may not be aware of what is happening in the environment that can negatively affect the family business or of the opportunities that are available that the firm can exploit.

Hypothesis 5c: There will be a positive relationship between founder centrality and TMT external social network strength of ties. This hypothesis was supported. Something systematic happens such that, when the level of founder centrality increases, the ties between members' TMT external networks becomes stronger. When the founder of the family business is very central and most of the managers have to go to him/her for advice or information on important strategic decisions, these managers may find it necessary to form closer bonds with persons outside the firm in order to collate or augment the founder's information or advice. They talk to the outside contacts more often, they tend to know them longer, and they tend to feel emotionally closer to them.

If the founder is inward looking, then the diversity of the external TMT networks becomes extremely important. This ensures that the TMT has the latest information on environmental factors that affect the family business. Therefore, founder centrality can be either a hindrance or an asset, depending on the founder's strategic orientation. If the founder is inward looking, then founder centrality would be a hindrance because the TMT network range will decrease as centrality increases, thereby limiting the diversity and richness of the information emanating from the environment. If the founder is outward looking, then it could be an asset as he/she gives advice and information based on the latest information from the environment to augment the information that TMT members have from their narrow range of contacts.

Research question 6: What is the relationship between TMT social networks and TMTBI? Hypothesis 6: There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties with TMTBI. This hypothesis was not tested because the combination of specified characteristics of social networks were present in very few companies participating in the study. This situation could have been a result of the way in which the hypothesis was constructed.

However, the researcher did zero-order correlations between each criterion and TMTBI. The findings of the correlations, as shown in Tables 7 and 8, indicate no significant relationship between TMTBI and internal and external network small size and narrow range. This could mean that top management behavioral integration depends on other phenomena but not on size and range of the TMT social network.

The results also indicated no significant relationship between external strong ties and TMTBI. This finding indicates that strong ties between the TMT and its external contacts do not affect the level of information sharing among the TMT members, their collaborative behavior, or joint decision making.

However, the testing of correlation between internal network strong ties indicated a moderate relationship between strong internal networks and TMTBI. This indicates that, when the TMT members know each other for a longer period of time, communicate frequently, and feel emotionally closer to each other, the level of behavioral integration increases and the TMT members share information, collaborate on various issues, and make decisions jointly. Collaboration, information sharing, and joint decision making could lead to a strategic advantage, making behavioral integration a strategic asset for the firm. This view is advanced by the RBV (Barney, 1989), which treats strategic assets as intangible assets that are unique to each firm.

The findings indicate a significant relationship between external weak ties and TMTBI. As managers gather information from their weak external ties, that information is mostly brought into the firm, and there is need to collate and share the information with the TMT members. Thus, the level of information sharing, collaboration, and joint decision making may increase, thereby raising the level of TMTBI among the managers in the family firm. This finding supports Granovetter's (1973) assertion of the importance of weak ties to access network resources through social coordination. Management can use weak external ties to access a variety of resources from their external networks to benefit the family firm. Thus, it is imperative to have a certain number of weak ties with outside contacts.

Research question 7: What is the relationship between TMT social networks and social capital? Hypothesis 7: There will be a positive relationship between TMT social networks that are small in size, narrow in range, and characterized by strong ties with social capital. This hypothesis was not tested because the combination of the specified characteristics of social networks were present in only a few companies participating in the study. This problem could have been a result of the way in which the hypothesis was constructed.

However, the researcher did zero-order correlations between each criterion and social capital. The findings on zero-order correlation (Tables 9 and 10) indicate no significant relationship between internal and external network small size and social capital. Small size internal networks may lack enough information diversity to produce social capital.

The findings indicated no significant relationship between narrow range of external networks and social capital. Narrow range networks, just like small size networks, may not have enough information diversity to create social capital. Examination of related findings show that tie strength in external networks is more important than either size or range of the network.

The findings indicated a significant relationship between internal social networks that are of narrow range and social capital. When the internal social network is not very diverse, the level of social capital formed is higher. When managers talk to a few people among the TMT, they are most likely to develop a trusting relationship that would utilize the resources embedded in the social networks that the individual members have, either inside or outside the company.

The feeling of mutual trust and the use of tacit knowledge unique in every manager to solve organizational problems creates an atmosphere of collaboration and team proficiency (McGrath et al., 1994), where proficient management teams become a source of idiosyncratic entrepreneurial practices that the family firm can use to competitive advantage. Such is especially true in the family business, where trust and loyalty are essential for the smooth functioning of the familial relations alongside business relations, both of which must exist side by side.

The other findings of zero order correlation showed a significant relationship between internal social network strong ties and social capital. Something systematic happens such that, when the strength of ties between members of the TMT social networks becomes stronger, the level of social capital within the network increases. This observation indicates that social capital is created when the members of a social network communicate more frequently, have known each other for a while, and feel emotionally close to each other. Thus, the family firm's TMT should have higher levels of social capital because of the coming together of the family and business systems. But this is not the case in some family businesses, where sibling rivalry may create ill will between siblings. The founder then becomes an important player in enhancing the level of social capital built within the TMT team by encouraging deliberate strategic human resource practices that enhance the creation of social capital within the TMT social network. The founder should strive to ensure that the TMT members form strong ties within the internal network, since strong ties seem to be a good conduit for social capital.

The other correlation finding a significant relationship between external strong ties and social capital creation within the TMT social network. Something systematic happens such that, when the strength of ties between members of the TMT and their external social network contacts is strong, the level of social capital within the firm increases. When managers communicate with persons outside the firm and feel that they can trust them and the information they get from them, the managers are most likely to share that information with others in the firm, use that information to solve organizational problems, and increase the level of strategic awareness within the firm.

Strong ties with external networks become an asset for the family firm as the TMT members extract valuable and intimate information from their external contacts and bring that information into the firm, where they use it to improve the firm's operational and strategic capabilities, thereby creating a differential advantage. These capabilities are developed individually and, when brought together into the firm, they produce bundles of competencies that otherwise would not have been available if the TMT members did not have strong ties with external contacts. Therefore, businesses should engage in deliberate strategic human resource practices that encourage the creation of strong ties with others outside the firm in order to extract this not-so-common asset called social capital. The human capital is amplified by the presence of social capital, which adds value to the family business.

Size and range of external networks do not seem to matter in the creation of social capital or behavioral integration. This seems to suggest that the most important characteristic of external networks is the strength of the ties that managers have with their contacts and not necessarily the size or range of their networks.

In the case of internal networks, narrow range and strong ties seem to be the best conduits for social capital. The founders and owners of family businesses should be encouraged to adapt targeted strategic human resource practices that encourage the formation of narrow range networks that are characterized by strong ties, which would ensure a maximum generation and transfer of social capital within the internal TMT social networks. Since size and range are very closely tied together, size may not be a major factor as long as the network has enough diversity but is not so diverse that diminishing returns set in as managers take too much time collating information.

Research question 8: What is the relationship between TMTBI and firm performance? Hypothesis 8: TMTBI will be positively associated with higher firm performance. This hypothesis was supported, as shown in Table 5. There is a significant relationship between TMTBI and firm performance and something systematic happens such that, when the level of TMTBI increases, the level of firm performance also increases. Behavioral integration among managers means that the managers are sharing information, they are collaborating with each other, and they make joint decisions when necessary. Such TMT behaviors would add value to the family firm and would be expected to lead to higher firm performance.

Behavioral integration is a strategic asset that is unique to every business; those firms in which the TMT is not behaviorally integrated will exhibit lower levels of performance than those with more behaviorally integrated teams. Those firms that have medium-sized networks and those that have strong ties seem to have the most behaviorally integrated TMT (Table 6), and management should be encouraged to form such networks.

Research question 9: What is the relationship between social capital and firm performance? Hypothesis 9: Social capital will be positively associated with higher firm performance. This hypothesis was supported, based on results reported in Table 6. There is significant relationship between social capital and firm performance; something systematic happens such that, when the level of social capital increases, the level of firm performance also increases. Higher levels of social capital mean that the firm has the ability to utilize the resources embedded in the social networks of its TMT and is able to add value not only to the operational and strategic capabilities of the firm but also to the overall individual and corporate structures of the organization. Higher levels of social capital mean that managers are able to share valued information that they have acquired from their respective networks; also, the levels of behavioral integration are enhanced, creating an atmosphere of collaboration and reciprocity (one member feels obliged to help the other by sharing information from other sources).

Social capital is a strategic resource that adds value, and management should encourage the establishment of networks the characteristics of which seem to serve as good conduits for social capital. In this case, this seems to be the networks that have strong internal network ties, internal narrow range, and medium size (Table 9). Practitioners and consultants should encourage formation of internal networks that are of medium size and narrow range, and characterized by strong ties, as well as external networks that are characterized by both weak and strong ties. This point is further discussed in the section on additional findings.

Additional Findings

This discussion of additional findings is arranged in the order that fits the flow of information from the research models 1 and 2. The first set of additional findings addresses founder centrality, FPI, FCI, and TMTBI. The second set of additional findings addresses TMTBI, social network characteristics, and social capital. The third set of additional findings addresses social network characteristics and firm performance.

Additional Findings on FC, FPI, FCI, and TMTBI

1. Analysis of the results indicated a significant relationship between FCI and firm performance (Table 14). Something systematic happens such that, when the level

of FCI increases, the level of firm performance also increases. FCI forms the basis for the formation, diffusion, and maintenance of corporate culture; when the family culture influences corporate culture in a positive manner, the level of firm performance should be expected to go up.

This is one of the most important findings in this research because it ties the effects of FCI to firm performance. There has been too much reliance on the hard side of strategy to explain differential competitive advantages between firms, and not enough attention has been paid to the soft side of strategy, such that the importance of variables such as corporate culture and their antecedents have been largely ignored by those in strategy research or left to social psychologists to investigate. This has been a shortcoming in strategy, and more should be done to incorporate the soft and the hard sides of strategy.

Firm culture has a direct effect on firm performance. Management and consultants should encourage those corporate cultural practices that seem to affect firm performance positively, such as collaboration, loyalty, trustworthiness, and so forth, and discourage those that are detrimental to firm performance. The founder can play a major role as he/she encourages, promotes, pays attention to, and rewards those behaviors that contribute to higher firm performance. This was first pointed out by Schein (1983b), who argued for the importance of the founder's culture embedding mechanism. This argument is also tied to the additional findings discussed next, on the relationship between FCI and social capital.

2. The relationship between FCI and social capital was moderately significant (Table 6). Something systematic happens such that, when the level of FCI is high, the level of social capital is also high. The results seem to indicate that the familial influence on the culture of the family firm creates an atmosphere that enables TMT

members to exploit the resources embedded in their networks for the benefit of the firm. This observation ties with the finding on the relationship between FCI and firm performance. If the FCI on the firm leads to the creation and maintenance of higher levels of social capital, then the results of such a relationship are translated into superior firm performance. Since social capital is a source of competitive advantage in terms of opportunity recognition, customer relations, access to financial resources, valuable information, and other forms of tangible and intangible resources, its creation due to a cultural orientation that encourages behaviors that enhance its formation and accumulation would benefit the family firm and be reflected in the performance of the firm.

3. The findings indicated a moderate relationship between FCI and TMTBI (Table 5). Something systematic happens such that, when the level of FCI increases, the level of TMTBI also increases. This indicates that familial influence on the establishment of the corporate culture has much to do with the level of behavioral integration found among TMT members. The family's level of collaboration and willingness to share information and make decisions jointly is translated into the bases for which a firm culture that supports the same behaviors is also developed. The founder becomes extremely important as he/she who sits at the confluence of the family and business systems and has the power and ability to positively or negatively affect the influence that the family culture will have on the firm's own corporate culture, thereby influencing the level of behavioral integration among TMT members; this is done indirectly through the establishment of the culture.

4. The analysis indicated that FPI is moderately associated with FCI (Table 2). Something systematic happens such that, when the level of FPI is high, the level of FCI is also high. The moderate relationship indicates that the firm's ownership

structure, governance, and management control affect the type of influence that the family's culture will have on firm. This is an important finding because of the importance of corporate culture to the success or failure of the firm.

This researcher's experience in family business has been that when the family owns a majority of the family firm and controls resources, governance, and management, the success of that firm will depend on the culture formed by the founding generation. Thus, the ownership issue becomes mute when the culture encourages behaviors that are conducive to collaboration, conflict avoidance, absence of sibling rivalry, respect for others' opinions, and cultivation of an entrepreneurial and strategic orientation that ensures continued opportunity recognition and long-term view of the family business.

5. The researcher expected a relationship between founder centrality and TMTBI, as stated in hypothesis 1; the results showed no such relationship. The only explanation that the researcher could find is that, in family business, founder centrality is affected by the level of family culture and power influence, and the founder alone cannot affect the level of TMTBI because other factors, such as social capital and tie strength, come into play. Since social capital is positively related to FCI and social capital is significantly related to TMTBI, the presence of social capital within the TMT will negate any effects that founder centrality may have on TMTBI, thereby making the relationship between the two not significant.

Additional Findings on TMTBI, Social Capital, and Network Characteristics

1. The relationship between TMTBI and weak external network ties was moderately significant (Table 8). Something systematic operates such that the level of TMTBI among TMT members is enhanced when the TMT members have weak ties

with their external networks. This finding supports Granovetter's (1973) argument about the importance of weak ties in social coordination. Weak ties are important in accessing information from external networks. When managers have weak ties with persons outside the firm, they usually collate that information with information from persons inside the firm, thereby creating stronger ties for the internal networks. This supports Krackhardt's (1992a) argument about strong ties. Therefore, both views are validated by these findings.

2. The findings on the relationship between TMTBI and medium-sized internal networks indicate a significant relationship between the two (Table 7). Something systematic happens such that, when the internal networks are of medium size, then the level of TMTBI increases. This would follow the argument by the researcher that, when the network size is too big, managers must invest too much time in communication with all contacts in the network. Thus, the medium-sized network provides the most appropriate forum for the maximization of behavioral integration among TMT members.

3. The results (Table 9) showed a moderate significant relationship between medium-sized internal networks and social capital. Something systematic happens such that, when internal networks are of medium size, the level of social capital tends to be higher. This is an important finding because it indicates that the best conduit for social capital is the medium-sized internal network. Thus, management should be encouraged to form social networks that are of medium size in order to maximize social capital formation and accumulation.

4. The findings indicated a significant relationship between social capital and TMTBI (Table 5). Something systematic happens such that, when the level of social capital is high, the level of TMTBI is also high. Thus, it is concluded that social

capital formation and accumulation aid in the convergence of TMT behaviors such that, when social capital is high, the managers' level of collaboration, information sharing, and joint decision making is high. Therefore, social capital can be seen as a good antecedent for behavioral integration. Managers should encourage social capital-building behaviors that could lead to a more behaviorally integrated TMT.

Additional Findings on Social Network Characteristics and Firm Performance

1. The analysis of the relationship between internal strong ties and firm performance shows a significant relationship between the two (Table 11). Something systematic happens such that, when the ties between members of the internal TMT social network are strong, the level of firm performance increases. Since strong internal ties lead to increased levels of social capital (Table 9) and social capital is positively associated with firm performance (Table 6), it would be expected that strong internal ties would lead to higher firm performance. Thus, management should encourage the formation of internal social networks with strong ties.

2. Results show a moderate relationship between internal weak ties and firm performance (Table 12). Something systematic happens such that, when ties between members of the internal social network are weak, the level of firm performance increases. Results show that the strength of the relationship is lower for weak ties than for strong ties. Thus, it is concluded that both strong and weak ties are essential but strong ties are much more important. TMT needs the weak ties to communicate occasionally with those in the networks with whom they do not share a strong bond, and the TMT also needs strong ties with those in their networks to share sensitive, frequent, and proprietary information.

3. Results show a moderately significant relationship between strong external ties and firm performance (Table 13). Something systematic happens such that, when there are strong ties between members of the TMT and their external network contacts, the level of firm performance increases. It can be concluded that strong external ties provide information and resources that enable the firm to perform better. The external ties enable the managers to scan the external environment, thereby enabling them to avoid strategic surprises. These ties also provide managers with information and knowledge necessary to make informed strategic decisions, thereby improving the firm's competitive position.

4. Results show a significant relationship between external weak ties and firm performance (Table 13). Something systematic operates such that, when TMT members have weak ties with their external social network contacts, the level of firm performance goes up. The level of significance is higher for weak external ties than for strong external ties. This confirms the earlier argument that weak external ties add value to the family firm by allowing managers to seek information and resources from external sources to enhance their competitive position without investing too much time in maintaining the relationship. Such a scenario supports Granovetter's (1973) argument about the need for weak ties. Occasionally, however, strong ties are also needed to extract from the networks information that is sensitive and proprietary and that cannot be passed over weak ties

Practical Applications Suggested by the Findings

The present study reinforced the work done by Kelly at al. (2000) and Schein (1983b), who purported that the founder is the most important person in the organization and that close attention should be paid to his/her role in guiding the firm's strategic direction. The present study also affirms the views of Granovetter (1973) and Krackhardt (1992a), who had opposing views on the importance of weak and strong ties to the value-added chain of social interaction and coordination. Weak ties are necessary for external networks because they seem to add more value, and strong ties are needed for internal networks, where they add more value. However, occasional strong ties are needed for external networks for information that is too sensitive to be passed over weak ties.

From the findings of this study, it is clear that the founder is key to the success of the family firm and that the level of family power and culture influence plays a key role in determining the level of founder centrality, which has far more implications for the strategic posture of the firm because the founder is responsible for the formation of the firm's corporate culture. This makes the founder the key figure to any direction that the firm takes.

It is clear from the study that the founder has the power to determine the characteristics of TMT social networks and should be aware of the influence that he/she has on the size, range, and strength of ties of the social networks that the TMT forms, either internal or external. Failure to recognize that reality may lead to an inward-looking strategic outlook that could lead to a myopic strategic posture, which could leave the firm vulnerable to strategic surprises.

Practitioners and consultants of the family business should encourage the founder and those in top management to adapt strategic human resource practices that encourage the formation of social networks that create social capital and behavioral integration. Such networks would incorporate the characteristics identified in the study as adding value. Among these characteristics are narrow-range internal networks, which seem to add value to social capital formation; medium-sized internal networks, which seem to add value to both social capital and TMTBI; and strong and weak ties. External network size and range do not seem to matter as long as the strength of the ties is well balanced, as indicated in the discussion below.

Networks that have strong ties, both internal and external networks, seem to add value to social capital formation and firm performance. This suggests that the practitioners and consultants in family business should encourage founders and top executives to encourage their TMT members to form strong ties with those in their networks, both inside and outside the firm. However, as noted below, strong ties for external networks should be formed with fewer contacts than weak ties.

For external networks, weak ties seem to add more value to firm performance than strong ties. Therefore, managers should be encouraged to have more weak ties than strong ties with their external contacts. Such an observation is critical because conventional wisdom seems to suggest that having strong ties would be more beneficial. When managers have a combination of both weak and strong ties, with a slightly larger number of weak ties and smaller but strategic number of strong ties, they add more value to the firm than when they have too many weak ties that would not be useful when they need strategic and sensitive information.

Weak external ties also seem to add value to TMTBI. The practical use for practitioners and consultants is twofold. On the one hand, it encourages the TMT members to collate most of the information that they receive from others inside the firm, thereby indirectly contributing to the creation of social capital. On the other hand, by collating this information with others in the TMT, the managers establish stronger ties that lead to increased social capital formation.

The antecedents of founder centrality, FPI and FCI, also have important practical implications for both practitioners and consultants. On the one hand, FPI seems to be less important than FCI in the wider implications of performance, social capital creation, and TMTBI. The findings seem to suggest that it does not matter how the ownership structure is formed, as long as the corporate culture that is formed as a result of the FCI adds value to other facets of the family firm that also add value to overall business. Such facets include TMTBI, social capital, and firm performance.

On the other hand, FCI seems to be much more important than FPI. FCI positively impacts social capital, firm performance, and TMTBI. Since founder centrality is affected by the level of FCI, then by encouraging the founder to reexamine the impact the family culture is having on the firm, the family firm can adjust those elements of the family corporate culture that have been negatively influenced by the family culture. A good example would be where carefree children bring the same attitude to the family business and such attitudes become a part of the family business's corporate culture as employees emulate the founder's children's behaviors. Another example could be sibling rivalry that comes from home and ends up in the family business, forcing employees to choose which children of the founder they will side with, thus forming several centers of power within the family business.

Since the FPI has been found to also affect the FCI, ownership, governance, and management structure can have negative effects on the overall business if the founding generation does not realize the enormous power that they wield in forming the family firm's corporate culture. Thus, practitioners and consultants should be aware of the need for the founding generation and the generation in control of the family business to understand that they have to balance the FPI and the FCI and remove or discourage those elements of the family culture that can be detrimental to the well-being of the family business. Failure to do so would lead to the problems often seen in family businesses, where the two systems collide when power and culture are not synchronized with the needs of the family business. The founder then remains the most important and influential person in the family business, as the balance between the family system and the business system seems to be the greatest part of the founder's job as he/she instills those cultural tenets that add value to the overall performance of the family firm.

Contributions to the Theory of Strategic Management and Family Business

This study provided empirical evidence on the relationships among FPI, FPI, founder centrality, TMT social network characteristics, social capital, TMTBI, and firm performance in the family business. The contributions are listed below.

1. It reaffirmed the founder centrality concept (Kelly et al., 2000) as an important area of inquiry in family business, and indeed in nonfamily business, by looking at the founder as the most important individual in the family firm.

2. It is the first study to apply the F-PEC model (Klein et al., 2005) to look at the effects that family power and culture influence have on founder centrality and other areas of the family business.

3. The study reaffirms the need for both weak and strong ties in the context of internal and external social networks of TMT members. It validates the contentions of Granovetter (1973) on weak ties and Krackhardt (1992a) on strong ties. It is the first study, to the knowledge of the researcher, to have separated the scenarios where both ties would be appropriate and complementary.

4. This is the first social network study of family business, and its findings have wider implications to the quest to understand the workings of the family business TMT both as a family unit and as a business management unit. By combining it with

founder centrality, the study adds value to both strategic management and family business literature.

5. The study contributes insight in the ongoing debate about the importance of social capital as a strategic asset. This is especially true in the family business, where the two systems (family and business) meet and create a corporate culture that is usually guided by the vision of the founder of the family firm, thereby making the family firm a possible well for social capital that may emanate from the family's need for loyalty and trust as well as a possible well for venom if family conflicts spill over to the business system.

6. This is the first study to look at the TMTBI in the family business. It brings mainstream theoretical underpinnings, such as the RVB, to examine their applicability in the family business.

Assumptions and Limitations

The following assumptions were made and were central to the design of this study.

1. The research methods and procedures used in this study were appropriate.
2. The respondents understood the questions in the questionnaire.
3. The answers to the questions were given truthfully and by the appropriate respondents.

The following limitations apply to the findings in this study.

1. The study focused on small- and medium-sized family businesses.
2. The study did not distinguish family businesses by industry or business type.

3. The study was done primarily on family businesses from the West Coast and the Southeast of the United States.

Suggestions for Future Research

As the first network study in family business, the study opens many possible areas for future research. These suggestions were derived from the findings and conclusions of this study.

1. The study included only small and medium sized companies and therefore there is need to study large family businesses to see whether the findings of this study could also apply to large family businesses.

2. Extend the concept of founder centrality to nonfamily businesses to see whether the findings in this study also apply to nonfamily businesses.

3. Extend the study of social capital to firms that rely heavily on networking to survive and see whether the findings on social capital also apply to such firms.

4. Apply the concept of founder centrality to knowledge-based firms, such as biotechnology, where the power distance is low because of the knowledge level of the workers, and see whether the level of centrality is lower there then in non-knowledge-based firms.

5. Extend the F-PEC model to larger family businesses to see whether they have the same relationship with founder centrality, social capital, and TMTBI.

Chapter Summary

The chapter provided a summary of chapters 1 to 4 and presented conclusions based on the findings in this study. It is clear from this study that family business research can use mainstream strategic management concepts such as RBV, upper echelons, and social network theory to enrich the literature and add value to the understanding of family operations. The chapter also highlighted the need to understand the founder as the pivotal figure in the success of family business.

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Appendix A

Alliant International University

Dear CEO

I am asking for your help in completing the enclosed survey for the CEO and to distribute the others to your top management team members (those who help you make major strategic decisions). This survey is a part of my doctoral dissertation research project to study top management team social networks and the influence the founder or the CEO has on the team's collaboration, information and resource sharing, joint decision making, and the creation of social capital. The title of the research is *Founder/CEO Centrality and Top Management Team Social Network Effects on Top Management Team Behavioral Integration and Firm Performance in Small and Medium Sized Family Businesses*. I am conducting this research in conjunction with the California School of Business and Organizational Studies at Alliant International University in San Diego, California. My Dissertation Committee members are Dr. Louise Kelly, Chair; Dr. Renee Naert, and Dr. Robert Cornelius.

As you know, in today's turbulent and fast-changing business environment, companies are constantly looking for new ways to gain competitive advantage over their rivals. As such, a clear understanding of this environment helps the company to formulate strategies that address the needs of the marketplace. Social networks play an important role in gathering information from the environment. Recently, many practitioners like yourself and those in academia have seized on the importance of intangible and difficult to copy resources, such as social capital and collaboration, as a key source of competitive advantage. This study will help us gain a better understanding of the role played by these intangible assets in securing superior performance for the firm.

Your participation in this survey will be greatly appreciated by my dissertation committee and me. This is the culmination of my 4-year effort to complete my doctoral program and I hope you will agree to help me. Please distribute the other enclosed surveys to your top managers because their input is crucial to the research. The CEO survey is short and should take 3 to 5 minutes. It is only through the participation of executives and owners of businesses like yourself that we can generate enough knowledge to help those of us in academics to train the managers of tomorrow and to shed light into the new and modern ways of doing business in today's turbulent business environment. Your participation is therefore extremely valuable and enriching.

This survey is strictly confidential and no answers can be traced back to any particular company. No identifying information is requested and the publication of the research will present only aggregated results from many companies. Each survey is accompanied by a pre-paid self-addressed envelope and all you have to do is to fold the completed survey, put it in the envelope and drop it in the mail. My goal is to receive at least 100 responses to ensure that the results are statistically significant. So I need your help.

In accordance with Alliant International University policy, the AIU's Institutional Review Board has approved this survey. The Institutional Review Board ensures that the rights of all research participants are protected. If you have any questions about the Institutional Review Board or the approval of the survey, please contact the Board at Alliant International University, 10455 Pomerado Road, San Diego, CA 92131.

Once again, thank you very much for your help and participation in this study. We are confident that the results of this study will benefit small and medium sized family and non-family businesses with insights into ways of increasing organizational effectiveness. If you have other family business owners that can help with the survey, please forward a copy to them so they can also participate.

If you wish to obtain a summary of the results of this study or have any questions about the study, please email me at dmwenja@san.rr.com or call me at (858) 382-2868 (any time).

Sincerely

Dominic Mwenja
Doctoral Candidate
California School of Business
& Organizational Studies

Appendix B

CEO Questionnaire

1. Company Size
   Number of full time employees in 2005------------

2. Background information
   (a) What is your current age?-----------years
   (b) How long have you had this job?------years--------months

3. Please indicate the proportion of share ownership held by family and non-family members
   (a) Family----------------------------%
   (b) Nonfamily------------------------%

4. Are these held in a holding company or similar entity (e.g. Trust)? 1.___Yes 2.____No
   If YES, please indicate the proportion of ownership
   (a) Main company owned by:
      (i) direct family ownership____________________%
      (ii) direct nonfamily ownership________________%
      (iii) holding company________________________%
   (b) Holding company owned by:
      (i) family ownership__________________________%
      (ii) nonfamily ownership______________________%
      (iii) 2nd holding company______________________%

5. Does the business have a governance board? 1______Yes 2. _________No
   If Yes:
   (a) How many Board members does it comprise?____________members
   (b) How many Board members are family members?______________
   (c) How many nonfamily (external) board members nominated by the family are on the board?______________

6. Does the business have a top management team? (Top management team is the group of managers that helps the founder or the CEO make important strategic decisions for the firm).

   1______Yes 2. _________No

   If Yes:
   (a) How many does it comprise? ________________members

(b) How many members are family members?_________________

7. Please use the scale below to answer the next questions:

Not at all　　　　　　　　　　　　To a large extent
1.........2......　3..........4...............5

Please rate the extent to which:

	1	2	3	4	5
Your family has influence on your business					
Your family members share similar values					
Your family and business share similar values					

8. Please use the scale below to indicate the extent to which you agree or disagree with the following statements:

Strongly disagree　Disagree　Neutral　Agree　Strongly Agree
1　2　3　4　5

	1	2	3	4	5
Family members support the family business in discussions with friends, employees, and other family members					
Family members feel loyalty to the family business					
Family members are proud to tell others that we are a part of the business					
There is so much to be gained by participating with the family business on a long-term					
Family members agree with the family business plans, goals, and policies					
Family members care about the fate of the family business					
Deciding to be involved with the family business has a positive influence on my life					
I understand and support my family's decisions regarding the future of the family business					
Family members are willing to put in a great deal of effort beyond that normally expected to help the family business be successful.					

9. Please use this scale to answer the next question
1=poor 2=below average 3=average 4= above average 5=outstanding

Compared to the major competitors in your industry in the last three years, how would you rate your firm's

	1	2	3	4	5
Sales growth					
Overall financial performance					
Level of profitability					
Growth in market share					

10. How would you characterize your firm's financial performance in the last three years relative to your planned financial goals?
1=poor 2=below average 3=average 4= above average 5=outstanding

11. Are you related to the founder of your organization? 1_______Yes 2. _________No

If YES, what is your relationship to the founder?-----------------------------------

Appendix C

February 1, 2006

Alliant International University

Dear Executive

As you know, your Chief Executive has agreed to participate in this study dealing with top management team social networks. I need your help in completing the top management team survey section of the study. This survey is a part of my doctoral dissertation research project to study top management team social networks and the influence the founder or the CEO has on the team's collaboration, information and resource sharing, joint decision making, and the creation of social capital. The title of the research is *Founder/CEO Centrality and Top Management Team Social Network Effects on Social Capital Formation and Top Management Team Behavioral Integration in Small and Medium Sized Family and Non-Family Businesses.* I am conducting this research in conjunction with the California School of Business and Organizational Studies at Alliant International University in San Diego, California. My Dissertation Committee members are Dr. Louise Kelly, Chair; Dr. Renee Naert, and Dr. Robert Cornelius.

As you know, in today's turbulent and fast-changing business environment, companies are constantly looking for new ways to gain competitive advantage over their rivals. As such, a clear understanding of this environment helps the company to formulate strategies that address the needs of the marketplace. Social networks play an important role in gathering information from the environment. Recently, many executives like yourself and those in academia have seized on the importance of intangible and difficult to copy resources, such as social capital and collaboration, as a key source of competitive advantage. This study will help us gain a better understanding of the role played by these intangible assets in securing superior performance for the firm and in guiding the firm's strategic direction.

Your participation in this survey will be greatly appreciated by my dissertation committee and me. This is the culmination of my 4-year effort to complete my doctoral program and I hope you will agree to help me. The survey is short and should take 5 to 10 minutes of your time. It is only through the participation of executives like yourself that we can generate enough knowledge to help those of us in academics to train the managers of tomorrow and to shed light into the new and modern ways of doing business in today's turbulent business environment. Your participation is therefore extremely valuable and enriching.

This survey is strictly confidential and no answers can be traced back to any particular company. No identifying information is requested and the publication of the research will present only aggregated results from many companies. Each survey is accompanied by a pre-paid self-addressed envelope and all you have to do is to fold the completed survey, put it in the envelop and drop it in the mail. My goal is to receive responses from at least 100 companies in order to ensure that the results are statistically significant. So I need your help.

In accordance with Alliant International University policy, the AIU's Institutional Review Board has approved this survey. The Institutional Review Board ensures that the rights of all research participants are protected. If you have any questions about the Institutional Review Board or the approval of the survey, please contact the Board at Alliant International University, 10455 Pomerado Road, San Diego, CA 92131.

Once again, thank you very much for your help and participation in this study. We are confident that the results of this study will benefit small and medium sized family and non-family businesses with insights into ways of increasing organizational effectiveness.

If you wish to obtain a summary of the results of this study or have any questions about the study, please email me at dmwenja@san.rr.com or call me at (858) 382-2868 (any time).

Sincerely

Dominic Mwenja
Doctoral Candidate
California School of Business
and Organizational Studies

Appendix D

Questionnaire for Top Management Team Members

1. Background information
   (a) What is your current age?-----------years
(b) How long have you had this job?-------years---------months
(c) What is the highest level of your education 1. High School------- 2. Some College---------
3. College Graduate------- 4.Post Graduate---------
------

2. Each of the sections below lists a category of business or personal contacts that an executive might have. Please indicate whether or not you have contacts in these categories, how many critical contacts you have in each category, how long you have known them, and how often you interact with them.

Category 1-External contacts

	Contact=Y No contact=N	How many critical contacts do you have in this group?	On average how long have you known these critical contacts? Years/Months	On average, how often per month do you interact with these contacts?
External board members				
Financial institutions				
Suppliers				
Competitors				
Customers				
Alliance partners				
Government agencies				
Trade associations				
Consultants				
Universities				
Special interest groups				
Financial markets				
Legal and regulatory				
Other external contacts				

3. On average, how close is your relationship with these critical external contacts?
   1=not close at all 2 3 4 5=extremely close

Category 2-Internal contacts

	Contact? Yes=Y No=N	How many critical contacts do you have in this group?	On average how long have you known these critical contacts? Years/Months	On avera how often per mo do you interact wi these contacts?
Production and operations				
Marketing and sales				
Research and development				
Finance				
Internal board members				
Other internal contacts				

4. On average, how close is your relationship with these critical internal contacts?
   1=not close at all 2 3 4 5=extremely close

5. The following statements may characterize the interaction between your top management team during strategic decision-making process. Please put an x in the box that best describes how you feel about the interaction between your top management team over the past three years.

Strongly disagree 1 Disagree 2 Neutral 3 Agree 4 Strongly 5

	1	2	3	4	5
Members of our top management team have face to face meetings frequently.					
Members of our top management team have frequent written communication (email, personal notes, reports, etc.).					
Members of our top management team can get sufficient information from each other.					
Members of our top management team can rely on information from each other-it is generally correct.					
Members of our top management team have frequent phone conversations.					
Members of our top management team get information from each other when it is needed—not to early and not too late.					
Members of our top management team are mutually responsible for decisions.					
Members of our top management team highly cooperate with each other.					
Members of our top management team make suggestions to each other.					
Members of our top management team					

are willing to sacrifice their self-interest for the benefit of the team.					
Members of our top management team often volunteer to help those members who are busy to manage their workload.					
Members of our top management are willing to help each other meet deadlines.					
Members of our top management team are flexible about switching responsibilities to make things easier for each other.					
Members of our top management team usually discuss their expectations of each other.					
Members of our top management team have a clear understanding of the job and problems and needs of other team members.					
Members of our top management usually let each other know when their actions affect another team member's work.					
Each member of our top management team actively participates in determining the entry into new markets.					
Each member of our top management team actively participates in changing policies that affect a major portion of the firm.					

6. Please use the scale given below to indicate the extent to which you agree or disagree with each of the following statements

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

	1	2	3	4	5
Members of our top management team are skilled at collaborating with each other to diagnose and solve problems					
Members of our top management team interact and exchange ideas with people in different areas of the company					
Members of our top management team interact and exchange information with people outside our company					
Members of our top management team partner with customers, suppliers, alliance partners, etc. to develop solutions					
Members of our top management team apply knowledge from one area of the company to problems and opportunities that arise in another part of the company					
Members of our top management team apply knowledge from their external contacts to problems and opportunities that arise in our company					

7. Please put an x in the box that best describes how often you seek advice from other members of your management team on strategic decisions. **Put the first name of each of your top management team members in the box provided.** Put the first name of the founder in the first space and the CEO (if different from the founder) in the second space followed by other team members below that.

Never	Not often at all	Often	More often	Most often
1	2	3	4	5

	1	2	3	4	5
Your first name					
1. Founder's first name					
2. CEO's first name(if different from founder)					
3. Manager one's first name					
4. Manager two's first name					
5. Manager three's first name					
6. Manager four's first name					
7. Manager five's first name					
8. Manager six's first name					
9. Manager seven's first name					
10. Manager eight's first name					
11. Manager nine's first name					

8. Please indicate how similar your strategic thinking is relative to the rest of the management team members. **Put the first name of each of the top management team members in the box provided.** Put the name of the founder in the first space and the CEO (if different form the founder) in the second space followed by other management team members below that.

Not similar	Slightly similar	Somewhat similar	Similar	Very similar
1	2	3	4	5

	1	2	3	4	5
Your first name					
1. Founder's first name					
2. CEO's first name (if different from the founder)					
3. Manager one's first name					
4. Manager two's first name					
5. Manager three's first name					
6. Manager four's first name					
7. Manager five's first name					
8. Manager six's first name					
9. Manager seven's first name					
10. Manager eight's first name					
11. Manager nine's first name					

9. Please use the scale below to answer the next questions:

Not at all ... To a large extent
1.........2...... 3..........4.................5

Please rate the extent to which:

	1	2	3	4	5
Your family has influence on your business					
Your family members share similar values					
Your family and business share similar values					

10. Please use the scale below to indicate the extent to which you agree or disagree with the following statements:

Strongly disagree Disagree Neutral Agree Strongly Agree

1 2 3 4 5

	1	2	3	4	5
Family members support the family business in discussions with friends, employees, and other family members					
Family members feel loyalty to the family business					
Family members are proud to tell others that we are a part of the business					
There is so much to be gained by participating with the family business on a long-term					
Family members agree with the family business plans, goals, and policies					
Family members care about the fate of the family business					
Deciding to be involved with the family business has a positive influence on my life					
I understand and support my family's decisions regarding the future of the family business					
Family members are willing to put in a great deal of effort beyond that normally expected to help the family business be successful.					

11. Please use this scale to answer the next question
1=poor 2=below average 3=average 4= above average 5=outstanding

Compared to the major competitors in your industry in the last three years, how would you rate your firm's

	1	2	3	4	5
Sales growth					
Overall financial performance					
Level of profitability					
Growth in market share					

12. How would you characterize your firm's financial performance in the last three years relative to your planned financial goals?

1=poor 2=below average 3=average 4= above average 5=outstanding

13. Are you related to the founder of your organization? 1=YES 2=NO

If YES, what is your relationship to the founder? ---

Appendix E

Content validity analysis emailed to experts

January 5, 2006

Hi everyone

As you all know, I am just about to send the questionnaires out for my survey. I therefore need your help by serving as experts to make sure that my survey items accurately reflect the construct that my research is examining. I have attached the survey items to this email.

All I want you to do is to match each of the 24 items below with one of the two constructs (behavioral integration and social capital). I have given you a definition of each of the constructs to help you with the identification.

I thank you all for your help. This should take about three minutes of your time but it will make a big difference to the quality of my research. If you could get this back to me by the 10th of January, 2006, I would really appreciate it. Let me know if you have any questions.

Thanks again,

Dominic Mwenja

Content Analysis

Instructions: Please read the definitions of the two constructs very carefully. After that, read each item and decide which construct that item represents. After you are finished please e-mail me your answers. Your e-mail should include the item number (1- 24) with the corresponding letters representing each construct. **A = Behavioral integration and B = Social capital**. The two constructs do not need to have the same number of items.

Construct Definition:

A. Behavioral integration. This refers to the degree to which top management team members of a firm engage in mutual and collective interaction. Such a group usually works together to accomplish its objectives.

B. Social capital: This refers to the resources, like knowledge, that is embedded within, available through, and derived from the network of relationships possessed by an individual, a group, or an organization.

1. Members of our top management team partner with customers, suppliers, alliance partners, etc. to develop solutions
2. Members of our top management team have frequent written communication (email, personal notes etc)
3. Members of our top management team are skilled at collaborating with each other to diagnose and solve problems
4. Members of our top management team have frequent phone conversations
5. Members of our top management team make suggestions to each other
6. Members of our top management team apply knowledge from one area of the company to problems and opportunities that arise in another part of the company
7. Members of our top management team are mutually responsible for decisions.
8. Members of our top management team usually discuss their expectations of each other.
9. Members of our top management team interact and exchange information with people outside our company
10. Members of our top management team can get sufficient information from each other
11. Members of our top management team have a clear understanding of the job and problems and needs of other team members
12. Members of our top management are willing to help each other meet deadlines.
13. Members of our top management team are willing to sacrifice their self-interest for the benefit of the team.
14. Members of our top management team get information from each other when it is needed—not to early and not too late.
15. Members of our top management team interact and exchange ideas with people in different areas of the company
16. Members of our top management usually let each other know when their actions affect another team member's work.

17. Members of our top management team can rely on information from each other-it is generally correct.

18. Each member of our top management team actively participates in determining the entry into new markets
19. Members of our top management team highly cooperate with each other
20. Each member of our top management team actively participates in changing policies that affect a major portion of the firm.
21. Members of our top management team are flexible about switching responsibilities to make things easier for each other.
22. Members of our top management team often volunteer to help those members who are busy to manage their workload.
23. Members of our top management team apply knowledge from their external contacts to problems and opportunities that arise in our company
24. Members of our top management team have face to face meetings frequently.