

Social Capital and SME Growth: an Emerging Market Perspective

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ABSTRACT

Social Capital and SME Growth: an Emerging Market Perspective

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Does a firm's stock of social capital influence the geographic scope of its activities? This study takes a closer look at the role played by social capital of small and medium enterprises (SMEs) operating in emerging markets in relation to their strategies of growth. It examines the role of the two facets of social capital, bonding and bridging capital, in making choices related to SME geographic growth strategies, on local, regional or international levels. The effects of social capital on parameters of growth including total growth, out of home region growth, and utilization of complex of contracts are also tested. The levels of bonding and bridging capital are assessed across groups of SMEs that are 1) of different organizational types; and that 2) demonstrate different types of strategic behavior. My primary goal is to extend the current knowledge on growth strategies of emerging market SMEs by developing a model specifying the effects of bonding and bridging social capital on SME growth. The less structured, uncertain and changing context of emerging markets provides a unique setting for testing the value of relational capital for SME development. I identify SME human capital and external environment as the moderators of relationships between the facets of SME social capital and SME growth patterns.

This study contributes to the existing literature by extending the knowledge of SME growth in the specific context of emerging markets. By testing the effects of relational ties on the choice of growth strategies, it clarifies the role of intangible resources in SME development. It also compares the bonding and bridging social capital of different classes of SMEs. In addition, it provides support for existing studies on the importance of contextual factors for the process of firm growth. The implications of this study include practical recommendations for SMEs on building and using their social capital to assist in SMEs' development.

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CHAPTER ONE

1. INTRODUCTION

Strategic management research has expanded dramatically in recent decades by trying to integrate a great diversity of theoretical perspectives, along with industry and national settings. Yet many studies of the behavior and strategies of organizations reflect the situation in large firms, and in developed economies. This study aims to add to the less than extensive literature on small and medium size enterprises (SMEs) operating in emerging markets. My focus is on the relationship between the structure of SME's social capital and on strategies for their growth, including growth through internationalization. This research builds upon several theoretical perspectives such as social network theory, internationalization theory, and a resource based view of a firm. The purpose of this study is to identify what facets of social capital are critical for SME development, and to assess their effects on SME choice of growth strategy.

“The term ‘growth’ is used in ordinary discourse with two different connotations. It sometimes denotes merely increase in amount; for example, when one speaks of ‘growth’ in output, export, and sales. At other times, however, it is used in its primary meaning implying an increase in size or improvement in quality as a result of a process of development, akin to natural biological processes in which an interacting series of internal changes leads to increases

in size accompanied by changes in the characteristics of the growing object” (Penrose, 1959: 1).

Thus, growth includes both qualitative and quantitative changes in firm behavior and outcomes. Probably the main distinction between the two is that quantitative growth mainly reflects change in the range of a firm’s activities; while qualitative growth refers to changes in the nature of those activities. For instance, changes in firm size measured by the number of employees, or amount of assets reflect quantitative growth. An increase in the volume of sales, revenue or profit also falls in this category. On the other hand, qualitative growth is reflected by changes in organizational structure and management practice. New product development efforts, and new socio-economic functions carried by a firm can also be attributed to qualitative growth. It is not uncommon that qualitative and quantitative changes are closely related. For instance, qualitative growth, as exemplified by changes in product lines, services, or markets, is usually accompanied by a quantitative increase in sales or profit. At the same time, a quantitative shift in firm size achieved through mergers and acquisitions is often followed by various adjustments in organizational culture and management.

It is usually easier to assess quantitative than qualitative growth, as many objective measures capture the change in range of firm characteristics and outcomes. Measuring the change in nature of activities is a less straightforward task, as these changes may not be easily observable. In this study, both quantitative and qualitative changes will be assessed in order to emphasize the multidimensionality of growth in terms of the process of firm development.

SME growth has been studied in the literature without any significant distinction between economically advanced, emerging, and developing countries. The studies of SME growth have rather focused on growth determinants, barriers to growth and growth outcomes (for a review see Davidsson, Achtenhagen, Naldi, 2007). Researchers agree that the forces affecting SME growth are internal factors, such as human capital (Baum & Locke, 2004; Wiklund & Shepherd, 2003a), entrepreneurial orientation (Lumpkin & Dess, 1996), and external environmental conditions (Dess and Beard, 1984). Specifically, Peng and Heath (1996) argue that institutional frameworks represented some major constraints to the choice of growth strategies. They state that in transition economies, the institutional environment shapes strategic choices by pushing firms toward growth through networking, and somewhat limiting organic growth, or growth via mergers and acquisitions.

Thus, differences in external and internal environments may affect the growth strategies of small and medium companies operating in various socio-economic contexts. I would contend that large and small companies operating in emerging markets have distinct characteristics and paths of development, including strategies of growth. However, one common variable for all these firms is an unstable, rapidly changing and often hostile environment of emerging economies. It is widely acknowledged in the literature that formal market institutions in emerging markets are imperfect or non-existent. At the same time, informal institutions such as cultural values, norms, traditions, and social relationships are often more influential in emerging countries than in developed ones (Peng & Heath, 1996; Peng, Wang, & Jiang, 2008). In this regard, firms are accustomed to es-

establishing and maintaining the network of connections which are beneficial for their survival and long-term development.

These connections represent a resource that is unique and important to any particular firm – its social capital. Adler and Kwon (2002) perceive social capital as “the goodwill that is engendered by the fabric of social relations and that can be mobilized to facilitate action” (Adler & Kwon, 2002: 17). My literature review suggests that the value of social capital is widely acknowledged in social sciences (Adler, 2001; Adler & Kwon, 2002; Coleman, 1988; De Carolis & Saporito, 2006; Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998).

Social capital is essential for a wide variety of entrepreneurial actions, including new venture creation, building competitive capabilities, and firm market expansion (Alvarez & Barney, 2001; Chen & Chen, 1998; De Carolis & Saporito, 2006; Gulati, 1998; Peng & Luo 2000). The forms and effects of social capital have been mainly studied in the context of developed economies (Granovetter, 1973; Coleman, 1988, Collins & Clark, 2003; McDonald & Westphal, 2003; McDonald et al., 2008; Nahapiet & Ghoshal, 1998). While issues related to the social capital of individuals and organizations have been addressed in the literature, research into the social capital of SMEs operating in emerging markets is scarce. Some researchers suggest that social capital and its consequences for firm behavior are context dependent (Carney & Gedajlovic, 2002; Dakhli & De Clercq, 2004; Khanna & Rivkin, 2001; Park & Luo, 2001; Xin & Pearce, 1996). It is also widely accepted that contextual factors are especially strong in developing economies, including emerging markets. Prior research suggests that the development of for-

mal institutions, together with country-specific cultural and political conditions affect social, informal relationships within and among firms (Baker, Gedajlovic & Lubatkin, 2005; Cao, Gedajlovic & Zhang, 2009; Carney & Gedajlovic, 2002; Dakhli & De Clercq, 2004; De Clercq et al., 2009; Khanna & Rivkin, 2001, Park & Luo, 2001; Peng & Heath, 1996; Peng & Luo, 2000; Xin & Pearce, 1996). These networks, in turn, contribute to a firm's ability not only to operate and grow its national market, but also go beyond national borders (Tung & Chung, 2010; Zhao & Hsu, 2007). With a variety of studies on the subjects of social capital and emerging markets, there is still a gap in understanding exactly how different types and dimensions of social capital interplay with each other and with the external environment, and how the particular features of SME's social capital influence SME's approach to growth.

Emerging economies bring into focus the importance of networking, while formal and informal ties are the main driving forces for firm development, raising the value of social capital as an indispensable asset for SMEs looking for opportunities to expand. Therefore, this study aims to investigate the relationship between various types of SMEs' social capital and the choices of growth strategies for SMEs. I will adopt the notion here of bonding (internal) and bridging (external) ties as the two sources of social capital (Adler & Kwon, 2002). By "bonding social capital" I mean "collective actors' internal characteristics" (Adler & Kwon, 2002:21), such as common identity, ascribed trust, reciprocity, etc. By "bridging social capital" I mean "a resource located in the external linkages of a focal actor" (Adler & Kwon, 2002:21), such as the network of connections with external actors such as other organizations, authorities, individuals and groups. Whereas bonding

capital is an attribute of a group that is initially inherited by group members, bridging capital is created by reaching beyond group boundaries. The context of emerging markets will provide a setting in which the role of social capital as a firm resource is especially visible. There are several research questions to be addressed in this study: 1) Which type of organizational social capital (bonding or bridging) is more valuable for SME growth in emerging markets? 2) What are the effects of bonding and bridging capital on the choice of SME growth strategies? 3) Do contextual factors such as human capital and external environment contribute to the relationship between SME social capital and growth?

The central concepts of this study include bonding and bridging social capital, and growth strategies. Overall, I would argue that in a poorly structured market, supporting institutions are typically found in an emerging market, so SMEs will greatly rely on intangible resources, such as social capital, to pursue their growth strategies. An array of resources (financial, human, technological, etc.) is required to increase the SME output, or the number of markets served. As a rule, SMEs do not possess all the necessary resources in abundance. This is why building their social capital, and relying on it for growth, becomes the SMEs' predominant developmental strategy. Thus, social capital enables the SMEs to reduce the cost of growth, and increase their competitiveness based on incumbent information and help received from their network partners. Building upon prior studies I propose that social capital is especially valuable to a firm functioning in emerging markets, and that there is a context specific component to social capital development and deployment. By examining SMEs as a particular type of firm operating in

emerging markets, this study argues that the specificity of a firm's social capital shapes its strategies for growth.

In order to answer the research questions outlined above, the second chapter of this study reviews and integrates prior literature on the role of social capital in firm behavior in general, and in emerging markets in particular. The third chapter presents a theoretical framework for the analysis of SME growth, placing a particular focus on the strategies of growth in relation to specific types of social capital. The fourth chapter describes the research methodology, and analytical procedures based upon primary survey data collected from manufacturing SMEs operating in the Siberian region of Russia. The unit of analysis is a firm. The sample consists of 65 SMEs, identified from the Novosibirsk City Chamber of Commerce database, and local business listings. The survey data is analyzed using statistical techniques to compare groups, hierarchical and regression analysis, and logistic regression. The results are reported in chapter five. Finally, the last chapter provides a detailed discussion of results, and addresses the strengths, limitations, and research implications of this study in terms of theory and practice.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Types of Social Capital and their Effects on Firm Behavior

2.1.1. Multifaceted Construct of Social Capital

Over the past few decades, the construct of social capital has been studied at multiple levels of analysis: individual, dyadic, group, organizational, network. The multi-level taxonomy of social capital research, summarizing both theoretical and empirical studies for twenty years (1989-2008) has been developed by Payne, Moore, Griffis & Austry (2011). With several conceptualizations being used by researchers, the large portion of extant literature links social capital to the value embedded in relationships among individuals, groups and networks (Adler & Kwon, 2002; Hitt et al., 2002; Tsai & Ghoshal, 1998). At a societal level, social capital manifests itself through patterns of economic development (Putnam, 1993; Woolcock, 1998) and through its “public good aspect” (Coleman, 1988). These macro-level studies are mainly of conceptual nature; they build upon sociological observations and provide examples to illustrate the theory behind social capital at the level of communities, regions, and societies at large. At the group and networks level of analysis, social capital has been mainly studied through empirical testing. The findings suggest that for these units of analysis social capital is reflected in the costs and benefits associated with group membership, including cultural or ethnic subgroups (Assudani, 2009; Chen & Chen, 1998; Park, & Luo, 2001), or associations of firms driven by common economic interests (Gulati, 1998; Khanna & Rivkin, 2001; McEvity & Zaheer, 1999; Uzzi, 1997). Organizational social capital is embodied in rela-

tionships among members of an organization (Leana & Pil, 2006; Pearson, Carr, & Shaw, 2008; Yiu & Lau, 2008), and in connections with external parties (Dyer & Singh, 1998; Robson & Bennett, 2000; Zahra, 2010). At a dyadic level of analysis, social capital is viewed as the goodwill engendered by relationship between pairs of individuals, groups or organizations (Chung, Singh & Lee, 2000, Dyer & Singh, 1998; Gargiulo & Benassi, 2000; Tsai & Ghoshal, 1998). Finally, at the individual level of analysis, social capital is perceived as a personal attribute, similar to reputation or personal ability, to access external resources (Burt, 1997; Coleman, 1988; Granovetter, 1973; Putnam, 2000). The vast majority of social capital research at individual, dyadic, and organizational level has been conducted in empirical settings; thus testing the theoretical concepts developed by Adler & Kwon (2002), Coleman (1988), Granovetter (1973 and 1985), Nahapiet & Ghoshal (1998).

This study explores the social capital of SMEs at the organizational level of analysis. In small business and entrepreneurship literature it is quite common to associate SME with individual entrepreneurs as being central to SME's founding, development, and strategic decision-making. While I agree with the crucial importance of individual founders to SMEs' survival and growth, I do believe that an organization, as a unit of analysis, provides more opportunities for exploring the role of social capital in SMEs' growth. Prior strategic management research has recognized the value of social capital at an organizational level as an embedded resource that "comprises both the network and the assets that may be mobilized through that network" (Nahapiet & Ghoshal, 1998: 243). Organizational social capital satisfies Barney's (1991) criteria for competitive advantage

as a firm-specific, non-imitable, and complex resource. As such, it provides access to information, opportunities and resources which are otherwise relatively restricted (Granovetter, 1973; Putnam, 1993, 2000; Zahra, 2010) and it advances firm performance (Galunic & Rodan, 1998). At the same time, organizational social capital allows for resources exchange and recombination within an organization (Tsai & Ghoshal, 1998), and stimulates coherent actions and common vision of organization members (McCallum & O'Connell, 2009). Thus, at an organizational level of analysis, social capital can be viewed as both bonding (firm-internal) and bridging (firm-external) capital. And while the assessment of social capital at an organizational level seems fairly impersonal, it captures several types of relations: 1) individual relations and group atmosphere inside a firm as bonding capital and 2) dyadic and network connections with external actors as bridging capital.

Adler and Kwon (2002) have noted that, at any level of analysis, sources of social capital lie in the social structure, or in other words, in social relations. "We can distinguish conceptually among three dimensions of social structure, each rooted in different types of relations: (1) market relations, in which products and services are exchanged for money or bartered, (2) hierarchical relations, in which obedience to authority is exchanged for material and spiritual security, and (3) social relations, in which favors and gifts are exchanged" (Adler & Kwon, 2002: 18). In the context of this study market, hierarchical, and social relations are analyzed using the embeddedness perspective (Granovetter, 1985): economic behavior is embedded in social structures and affected by social relations.

Granovetter's notion of embeddedness is widely used in social capital literature, allowing researchers to make a distinction between dimensions of social capital. Two types of embeddedness, or in other words, two dimensions of social capital are structural and relational dimensions. The structural dimension refers to the configuration of linkages between actors (Granovetter, 1992) which is characterized by the presence or absence of linkages, their density, and hierarchy, direct or indirect connectivity (Nahapiet & Ghoshal, 1998). Relational dimension of social capital refers to the type of relations that are developed through the history of interactions (Granovetter, 1992). Important attributes of relational dimension include trust and trustworthiness (Putnam, 1993), closeness and identity (Uzzi, 1996). Thus, using Adler & Kwon's (2002) typology of social relations, and following the embeddedness approach, this study distinguishes between 1) the structural and relational dimensions of organizational social capital; and 2) social, market, and hierarchical relations within social structure.

Firstly, the structural dimension of social capital is assessed through horizontal and vertical ties. In this regard, both market and social relations are referred to as horizontal ties. The horizontal ties of an organization represent the symmetrical business and social interactions between parties that are relatively equal in terms of power, status, and roles played in their respective domains of activities. While market relations refer to business, and social relations refer to social or personal interactions, the level of involvement, and the costs and benefits of horizontal ties are similar to all parties involved in this type of relations. Examples of horizontal ties include interactions with customers, suppliers, competitors, professional associations, etc. Hierarchical relations are referred

to as vertical ties, representing asymmetrical relations between organizations and various levels of authorities that are more powerful, including government, financial, regulative and administrative institutions. Among the vertical ties are interactions between organizations and banks, local and federal governments, tax agencies, etc. Vertical ties are, in fact, institutional ties as they represent the relations between organizations (or individuals, or groups) and various institutional structures.

Secondly, the relational dimension of organizational social capital can be assessed through the strength of ties. “The strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie” (Granovetter, 1973: 1361). Social capital literature distinguishes between strong and weak ties (Granovetter, 1973). Strong ties are characterized by reciprocity, ascribed trust, greater similarity of actors, and higher frequency of interactions. Weak ties, often referred to as arm’s length ties, are characterized by formal, sporadic transactions that allow for reaching out to many heterogeneous actors outside one’s own group or network. Weak ties are associated with earned trust that is based on the practice of repeated interactions or on the third-party references. The main features of strong and weak relational ties are reflected in bonding and bridging social capital; the two types of organizational social capital discussed in the following sections of this chapter.

Thus, social capital manifests itself in various setting, and at several levels of analysis. Appendix A provides a summary of the terminology and definitions used in this study to depict the structural and relational dimensions of SME bonding and bridging so-

cial capital. Overall, organizational social capital shows the commitment of owners, managers, and employees to the common goals and strategies of an organization. It is worth mentioning that the accumulation and use of organizational social capital do not depend on the level of capital markets' development, or on firm credit history, or on relationships with financial institutions. As such, social capital is a valuable intangible resource which is potentially available to all the actors involved. In the center of organizational social capital are bonding relations that reflect common identities and values, and which facilitate mutual understanding and cooperation among members of an organization, and enhance organizational outcomes. In addition to the bonding core, bridging connections allow access to external groups and individuals, expanding the range of opportunities available to an organization. "Since social capital exists in connections, it resides both within and beyond organizational boundaries" (McCallum & O'Connell, 2009: 156). Thus, bonding and bridging social capital represent connections created and inherited by individuals and groups within and outside a firm.

2.1.2. Bonding and Bridging Social Capital

Social capital literature distinguishes between two types of social capital – bonding social capital and bridging social capital (Adler & Kwon, 2002; Rowley, Behrens & Krackhardt, 2000; Putnam, 2000; van Staveren & Knorringa, 2007; Woolcock 1998). Appendix B summarizes the costs and benefits associated with bonding and bridging social capital at multiple levels of analysis, and in various research settings.

"Bonding social capital emerges from strong social ties, which are based on a social identity, for example family and kinship, gender, ethnicity, religion or organizational

culture” (van Staveren & Knorringa, 2007:114). As such, bonding connections are usually attributed to a group of individuals. Strong ties characterizing bonding social capital are usually associated with shared social identity, ascribed trust, and sharing of fine grained information (Assudani, 2009; Gulati, 1998; Pearson et al., 2008; van Staveren & Knorringa, 2007; Woolcock, 1998). In terms of intra-group characteristics, bonding social capital facilitates an exchange of tacit knowledge (Uzzi, 1996; Uzzi & Lancaster, 2003) and stimulates in-group collective actions, cooperation and learning (van Staveren & Knorringa, 2007).

One of the most important features of bonding social capital is its ability to lower transaction costs due to ascribed trust and a decrease in the need for formal control and monitoring (Cardoza and Fornes, 2011; McCallum & O’Connel, 2009). Thus, at a firm level, bonding social capital facilitates the efficiency of firm-internal, implicit processes that require mutual understanding and exchanges of fine-grained information among managers and employees. Bonding ties allow for the mobilization or restructuring of restricted resources that are available within a firm or a larger social group. On the negative side, bonding social capital creates barriers to group entry, and limits access to external sources of information and resources (De Carolis and Saporito, 2006; van Staveren & Knorringa, 2007; Woolcock, 1998). As a result, too much bonding capital can be damaging to a firm, limiting opportunities to generate more social capital (either bonding or bridging). In addition, excessive bonding restricts the choice of competitive and developmental options by involving firms and other organizations in opportunistic and rent-

seeking activities within the same social group (Grabher & Stark, 1997; Kaminska, 2010; McMillan & Woodruff, 1999; van Staveren & Knorringa, 2007).

Unlike bonding capital, bridging relations arise on an individual level, and connect unrelated groups and individuals across society (Granovetter, 1985). When talking about the bridging ties of an organization, we can assume that while those ties are created by individual members of that organization, the benefits of bridging ties are extended to an organization as a collective actor. Bridging ties can form vertically, through hierarchical relationships, and horizontally, forming collegial networks. Bearing in mind that horizontal ties reflect both market and social relations, we can conclude that at organizational level bridging capital can be formed on the basis of both weak and strong ties.

Weak ties are the main sources of bridging capital, as they facilitate an organization's outreach to external actors and unfamiliar environments (Granovetter, 1973). Bridging linkages are built upon explicit market relations, and upon earned rather than ascribed trust. This is why bridging ties are open to out-group members. Earned (generalized) trust may include occasional checks on partners' trustworthiness; thus, bridging ties are somewhat calculated, and not affect-based. As such, bridging social capital facilitates economic transactions among heterogeneous groups through various horizontal and vertical ties, and provides benefits of spreading positive externalities (van Staveren & Knorringa, 2007). Bridging connections help demonstrate firm legitimacy and credibility and allow for leveraging new knowledge and resources (Alvarez and Barney, 2001; Assudani, R. H. 2009).

Bridging social capital helps to increase efficiency through better coordination of actions and lower levels of opportunistic behavior (Putnam, 1993). Overall, it enhances firm opportunities compared to less “connected” competitors through wider exposure to variety of new ideas (Cardoza and Fornes, 2011; Peng, 2004). This broader access to new information and ideas helps suppress group-thinking (McEvity and Zaheer, 1999), facilitates innovations (Prashantham, 2008), and helps develop “novel competitive strategies” (Geletkanycz & Hambrick, 1997).

Strong ties can also lead to the creation of bridging capital at an organizational level, as organizations are involved in market relations as well as in social relations; and organizations consist of individuals who are members of various social groups. For instance, strong familial or ethnic ties, or a common social background, can serve as a basis for initiating business partnerships between organizations. The extant literature provides numerous illustrations of in-group social relations affecting market transactions among unrelated actors, across industries or geographic regions (Burt, 1997; Chen & Chen, 1998; Coleman, 1988; Putnam, 1993). It is worth noticing that the implications of bridging social capital for a firm do not necessarily depend on the type of relations underlying the generation of bridging ties. As the literature suggests, the outcomes of bridging social capital at any level of analysis reflect its boundary-spanning, opportunity-enhancing abilities. The benefits of bridging relations come with some costs associated with conformity pressures from external networks (Burt, 1997). Thus, excessive outreach for new resources and opportunities represent the downside of bridging capital.

Bonding and bridging social capital serve different purposes within a firm at the level of inter-organizational relationships (see Appendix B). While the former stimulates the intensity of exchanges within a group or organization, the latter widens the outreach beyond group or organization boundaries. At the same time, the two can reinforce each other, and enhance the market outcomes of a firm (Coleman, 1988). Bonding capital is efficient in situations involving implicit exchanges, coherent behavior, and access to restricted resources. Bridging capital is effective in explicit exchanges; and for access to novel resources and opportunities (Appendix B). Uzzi and Lancaster (2003) suggest that bonding capital has better use in transferring tacit knowledge, whereas bridging capital is better for communicating explicit knowledge. Bonding ties enhance firm performance in an environment where exploitation of firm behavior is appropriate, and bridging ties are more useful when exploration of firm behavior is needed (Rowley et al., 2000; Zaheer, Gözubuyuk & Milanov, 2010).

Bringing bonding and bridging social capital together in one framework of economic development, Woolcock (1998) synthesized the effects of these two types of social capital on individual (micro) and societal (macro) levels of analysis. Figure 1 presents his model of four distinct categories of economic development relative to dimensions of integration, as exemplified by bonding capital, and linkage as demonstrated by bridging capital. In this conceptual framework, the first quadrant represents low levels of both internal (bonding) and external (bridging) connections. This combination leads to the maximization of self-serving at an individual level, or to anarchy in the relationships between state and society. In both cases, economic development ceases to exist. The second quad-

rant describes “normless” behavior in situations when internal connections are minimal, but when external links are well developed. This situation is characterized by opportunities being provided to participate in multiple activities, but individuals’ commitments and contracts may be short-term because of the absence of social identity, and the lack of community support. At the macro level, states and societal groups follow their self-serving agendas as exemplified in wide-spread corruption, violence and low tolerance. In the literature, normless behavior is often associated with modernization and rapid societal transformations (Durkheim, 1893, Galtung, 1996).

The third quadrant reflects the situation of excessive internal ties which compensate for the lack of external ties. At the micro level, greater ethnic and familial loyalties prevent individual actors from economic advancement and territorial mobility, creating a “ghetto” type of economic development with limited opportunities and outcomes. At the macro level too much bureaucracy is created, leading to rent-seeking, and inefficiency of developmental efforts. This situation is illustrative of many emerging countries known for their weak institutional structures, lack of support for businesses and societal initiatives. Finally, the fourth quadrant illustrates the case of internal integration complemented by external linkages. This situation refers to the greater economic success and better adaptation of individual actors to the larger socio-economic environment. At the macro level “a coherent, connected, and cohesive developmental framework” (Woolcock, 1998: 178) allows for the successful development of countries, industries, or groups.

Woolcock’s (1998) framework highlights opportunities and limitations for economic development across levels of analysis; pointing out that multiple combinations of

bonding and bridging social capital need to be presented simultaneously. Woolcock suggests that the need for internal connections decreases as embeddedness in external networks increases. Thus, he sees bonding and bridging capital as two complementary types of social capital that are the most beneficial for any actor when they are well-developed and well-balanced: "... too much or too little of either dimension at any given moment undermines economic advancement" (Woolcock, 1998: 175).

For organizations as units of analysis, Woolcock's ideas translate into growth strategies and outcomes which may be shaped by 1) the level of integrity and coherence within an organization showing its internal environment; and 2) the system of linkages with larger market, hierarchical, and social structures reflecting institutional build-up of external environment. Thus, both bonding and bridging capital are essential for an organization in terms of sustaining internal efficiency of organizational processes, and for providing external opportunities to improve outcomes.

The notion of an external environment affecting the creation and use of social capital is supported by Reimer, Lyons, Ferguson & Polanco (2008). These scholars review prior work on social capital conceptualization and application, and propose that social capital is not only embedded in social relations, but that its formation and functioning are affected by different types of relations and norms such as market, bureaucratic, communal, and associative factors. Van Staveren & Knorringa (2007) also build upon Coleman's (1988) and Woolcock's (1998) ideas reflecting on the relationship between bonding and bridging social capital, and suggesting that bridging social capital can be developed on the basis of bonding capital.

“Bonding social capital generates externalities for individual agents’ behavior from group practices, creating and reproducing certain social capabilities, for example the adherences to social norms, which may include mutual help, trustworthiness, sociability, loyalty and responsibility, as well as knowledge sharing. Bridging social capital builds on these social capabilities—it will not just arise by itself in a society without any experience of close bonds between people in families, friendships, associations and organizations. The relationship between the two, however, is not straightforward: the two levels of social capital seem to be partly trade-offs and partly supporting each other” (Van Staveren & Knorringa, 2007:116).

Van Staveren and Knorringa (2007) propose that bonding and bridging capital can be seen as being both complementary and a trade-off, and that at the societal level bridging capital can be developed on the basis of bonding capital. They conclude that business actors and society in general can benefit from transformation of bonding social capital into bridging social capital; as such a transformation can result in broader common values and greater interaction among heterogeneous groups and groups with different types of social identity.

Much of the prior research is inconsistent regarding the relationship between the two types of social capital (complementarities or trade-offs). However there is general

agreement among scholars that the transformation of bonding social capital into bridging is not an easy process; and that bridging capital is of more importance to development. Unlike inherited or taken-for-granted bonding relations, bridging ties require efforts to create and maintain them. They allow autonomous agents to reach the full potential of their development through becoming embedded in social structures. The costs and benefits of bonding social capital result from its integrating capacity, while the outcomes of bridging capital reflect its boundary-spanning abilities. However, very high levels of bonding social capital may impede the development of bridging social capital, resulting in low trust societies (Fukuyama, 1995): e.g. tightly bonded groups can become mafia-style societies where strong obligations to one another outweigh obligations to a wider society. Internal organizational conditions and external environmental factors may require an organization to balance its social capital structure in a way which is suitable for its industry or general environment (Cooke & Wills, 1999; Reimer et al., 2008; Rowley et al., 2000). Based on the prior work on social capital conceptualization and application, it is safe to conclude that social capital is not only embedded in broadly defined social relations, but that its formation and functioning are affected by different types of relations and market, bureaucratic, communal, and associative norms.

2.2. The Value of Social Interactions in Emerging Markets

Previous sections have demonstrated that the social capital of individual and collective actors is embedded in the external environment; in other words, social capital is context-dependent (Edwards & Foley, 1998; Reimer et al., 2008).

“Socioeconomic and political context plays a prominent role in determining the value of a specific form of capital - financial, social, cultural, or human – and how that value varies, depending on the goal toward which it is expended” (Edwards & Foley, 1998:130).

It is generally accepted that an emerging market is "a country that satisfies two criteria: a rapid pace of economic development, and government policies favoring economic liberalization and the adoption of a free-market system” (Hoskisson, Eden, Lau, and Wright, 2000: 249). A wide variety of countries falls into this broad definition, ranging from developing to transition and newly industrialized countries. Emerging markets as a group create a rather specific institutional context for the companies operating in these markets. These countries usually lack reliable and well-functioning normative and regulative institutional structures as they undergo rapid socio-economic changes. Most of the emerging and transition countries suffer from institutional voids, and do not provide any stable institutional mechanisms to support economic actors (Khanna & Palepu, 1997). As a result, firms in emerging markets have to resort to other ways of finding external support by developing active vertical and horizontal ties for extensive networking (Peng and Heath, 1996; Peng & Luo, 2000). The extant literature suggests that, across mature and developing economies, various connections are essential in many aspects of firm behavior. Prior studies have demonstrated that the discovery of entrepreneurial opportunities (Adler & Kwon, 2002; De Carolis & Saporito, 2006; Zahra, 2010), firm competitive advantage (Dyer & Singh, 1998; Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998; Uzzi, 1996; Uzzi, 1997), strategy and performance (Geletkanycz & Hambrick,

1997), and capability building (McEvily & Zaheer, 1999) all depend on firm external connections. However, the relative value of those connections is different in developed and developing institutional contexts.

Social capital embedded in relationships is more important in emerging markets where formal institutional frameworks are weak, uncertainty is high, and information is highly fragmented (De Clercq et al., 2009; Peng & Luo, 2000; Xin & Pearce, 1996). This view is supported by a comparative review of social capital in China, Korea and Japan by Hitt et al. (2002). These authors argue that Asian “relational capital” which is perceived as an in-group phenomenon, or ascriptive ties can help to increase a firm competitive advantage by providing more intangible resources and more strategic flexibility to a firm, and by helping to disseminate new knowledge and information. Hitt et al. (2002) have demonstrated that in an Asian context, bonding capital spreads beyond firm boundaries while in-group attributes such as family ties, common birthplace, or social background are very important for creating inter-organizational networks. Wright, Filatotchev, Hoskisson & Peng (2005) support this line of argument. In the case of entrepreneurial ventures, in-group ethnic ties provide the basis for firm establishment and survival in hostile conditions (Assudani, 2009). Thus, Asian countries illustrate that the bridging capital of a firm can indeed be sourced from bonding capital and strong ties; and that the structural dimension of social capital can be shaped by relational dimension.

It has been argued that extensive vertical ties provide firms with increased access to complementary resources, technologies, competences, and knowledge (Li, Zhou & Shao, 2009), and improve adaptability to environmental uncertainties (Tallman, Jenkins,

Henry & Pinch, 2004). Some authors, such as Xu, Huang & Gao (2012) state that the development of institutional ties between firms and government officials is led by environmental uncertainty; and that strong interpersonal ties are in the center of such linkages. Similar results are reported by Park & Luo, 2001. Hence, in the context of emerging markets, the creation of firm-external, bridging capital is significantly affected by the presence of bonding capital. The relational dimension of social capital and strong bonding ties in particular impact the configuration of structural linkages between actors. Thus, the relational dimension of social capital reflects the main feature of social capital in emerging markets; and strong ties dominate both bonding and bridging social capital.

Based on the evidence from emerging market research that emphasizes the value of bonding capital, it is safe to conclude that ascribed trust embedded in strong ties is especially important for firms in emerging countries. Ascribed trust reduces the risks of doing business, including the risks of cooperation in uncertain environments at both firm-internal and firm-external levels (Chung et al., 2000; McMillan & Woodruff, 1999; Peng, 2004). Hence, a weak formal institutional infrastructure, and a lack of reliable arm's-length relations, reinforces the importance of in-group ties in bridging gaps in the hierarchical, market and social structures of emerging countries.

Aside from the institutional imperfections of emerging markets, the nature of SMEs places more emphasis on social capital as a valuable firm resource. It is widely accepted that SMEs are more vulnerable to unfavorable changes in market conditions because of their limited resources, and simplified management systems. A number of studies have demonstrated that smaller firms have less slack resources than larger firms (Pen-

rose, 1959, Oviatt & McDougall, 1994; Lu & Beamish, 2001); and that SMEs use networks to compensate for their lack of resources (Julien, 1993). Hence, in rapidly changing emerging economies, the vulnerability of SMEs and their sensitivity to poor management decisions increases. Thus, social capital can leverage a firm's position and increase its resistance to unfavorable external and internal changes.

I must notice that behavioral and relational aspects of emerging markets SMEs and individual entrepreneurs, together with unique characteristics of emerging economies, have received a limited attention in extant literature (Burton, Ahlstrom, Obloj, 2008). However, despite the scarcity of studies on the role of SME social capital in emerging markets, there is some empirical evidence stating the benefits of both bonding and bridging relations for various types of SMEs and across emerging economies. For instance, many small firms in Eastern Europe are surviving and even growing without any significant government support, just on the basis of their founder's creativity, and with the use of resources mobilized through social capital (Smallbone & Welter, 2001). For small Chinese firms, inter-firm networking facilitates rapid internationalization by offering foreign business resources (Tang, 2011). On a similar note, global networks affect Chinese and Taiwanese SMEs internationalization and export performance (Filatotchev, Liu, Buck & Wright, 2009; Zhou, Wu & Luo, 2007). Thus, bridging relations seem to be essential for SME developmental efforts and outcomes in emerging markets.

In terms of bonding relations, prior studies suggest that bonding capital helps to overcome the negative impact of rapidly changing market environment (Turner & Nguyen, 2005), and improve firm performance (Wu & Leung, 2005). In Poland, however,

bonding relations demonstrated dual effect: on one hand, they contributed to rapid growth of local entrepreneurial firms, but on the other hand, bonding ties impeded cooperation and knowledge-sharing across firms (Kaminska, 2010).

Addressing the issue of the prevalence of bonding or bridging ties in SME business activities, van Staveren and Knorringa (2007) conducted two case studies in Vietnam and Ethiopia. They noticed that the composition of SME social capital varied between two countries, and that SMEs adjusted their market development strategies according to the type of relations (bonding or bridging) that was more pronounced in their respective countries. Another cross-country comparative case study supported the earlier discussion regarding the overlap between bonding and bridging ties in emerging markets. Morris, Woodworth and Hiatt (2006) argued that cooperative inter-firm relations that were often based on strong ties resulted in higher survival and growth rates among microenterprises in Philippines and Bulgaria. Thus, empirical results for the effects of bonding and bridging social capital for SMEs are in line with findings reported for wider population of firms operating in emerging markets. Summing up the previous discussion, in emerging markets the presence of bonding capital is reflected in strong in-group ties which, to some extent, overlap with firm-external bridging capital. Social capital in general becomes more important than in developed economies, providing firms with better knowledge and information, and enabling them to respond to market challenges in a timely manner, and with greater confidence. While the relational dimension of social capital is of great importance in any type of environment, the value of social relations is especially pronounced in the mixed or changing institutional and economic context (Adler,

2001; Covin & Slevin, 1989; Peng & Luo, 2000). In emerging markets, bonding and bridging linkages serve a dual purpose. Firstly, they compensate for the lack of formal institutional support. Secondly, they contribute to firms' ability to cooperate and compete with domestic and foreign companies in their respective national, regional, and global markets. Vertical and horizontal network ties bring in more opportunities, and more information. They improve the quality of firm management, and affect overall firm behavior, growth and performance. While social capital is important for firms of any size and scope, its role is greater for SMEs as they have limited resources. Compared to large companies, they rely on simple information management systems, and on centralized, non-bureaucratic governance procedures (Torrès & Julien, 2005). These specific characteristics of SMEs together with the peculiarities of emerging markets institutional structures place more emphasis on relational resources, and require more attention to the role played by bonding and bridging capital in SME actions and outcomes.

CHAPTER THREE

3. THEORY DEVELOPMENT

3.1. Social Capital and its Implications for SMEs in Emerging Markets

3.1.1. Types of Social Capital and SME Growth

In this thesis I aim to explore the implications of bonding and bridging social capital with regard to the growth of SMEs in emerging markets. As previously discussed, the peculiarities of emerging markets are reflected in their underdeveloped formal institutions and in the highly influential informal institutional arrangements that may place a higher emphasis on relationships such as trust, cooperation, knowledge- and risk-sharing. In such an environment, strong ties indicating a built-in ascribed trust, and the support and sharing of fine-grained information seem to carry higher value to an SME than weak ties. Strong ties allow firms to capitalize on close social relations, without carrying the costs and uncertainties of arm's length transactions (Zhao & Hsu, 2007); and mobilize firm-internal capabilities for knowledge sharing, innovation and resource recombination (Galunic & Rodan, 1998). Contracts and agreements that are based on ascribed trust, reciprocity, and other in-group relational attributes allow firms to carry on various partnerships (Adler, 2001; Dyer, 1996; Macneil, 1980; Sako, 1992; Uzzi, 1997), and increase their overall market competence (Wu, Sinkovics, Cavusgil & Roath, 2007).

In emerging markets, external connections built upon strong ties provide a firm with better access to the market (Li et al., 2009), more financial resources (Leuz & Oberholzer-Gee, 2006), government contracts, information, and updates on upcoming changes in regulations (Yiu et al., 2007). The latter point makes vertical ties especially valuable

for firms seeking to grow into new domestic and international markets. Since bridging connections can be built upon strong and weak ties, it would be interesting to discover which bridging ties reflect the pattern of in-group socialization in its broad sense; and which are built upon arm's-length transactions between heterogeneous actors. Prior studies imply that kinship-based bonding relations are indeed reflected in inter-organizational networks, and that the majority of bridging ties are in fact strong ties (Peng, 2004; Zhao & Hsu, 2007). However, these results have not been tested outside of the Asian context. Thus, while the value of bonding capital is well established, this capital is measured not at a firm level, but rather at a group or network level.

It seems that at, a firm level, the relative value of bonding and bridging social capital remains somewhat open for discussion. With a growing number of studies dealing with relational ties and their effects on firm behavior and outcomes in emerging and transition countries, the distinction between bonding and bridging capital at a firm level remains vague. In emerging markets, in-group ties often cross firm boundaries; thus measuring bonding capital at a firm level does not capture all the implications of close, bonding ties for firm behavior. In turn, the bridging capital of an emerging market firm heavily reflects strong in-group ties, rather than weak linkages.

Since contextual factors affect both the creation and application of social capital, some common environmental features of emerging markets may be reflected in the types and effective use of social capital. For instance, as discussed in previous paragraphs, the formation of bridging ties depends on environmental transparency and the level of generalized trust in society. Taking into account the many imperfections of emerging markets,

one may expect that arm's-length bridging ties may not be as common in those countries as in developed ones. A lack of transparency and great instability in institutional arrangements, together with poor information availability and law enforcement may lead to weak bridging ties being less reliable than strong ties.

There is some evidence, however, which indicates that even when formal institutions are poorly developed, and the external environment is hostile, small entrepreneurial firms still need to rely on arm's-length relations if they are willing to grow beyond local limits, or above a certain size (McMillan & Woodruff, 2002). The authors also observe that, as the quality of an institutional environment improves, the complexity of dealings, and the formality of contracts also increases. Similar points were mentioned by Wright et al. (2005) in their review of strategy research in emerging economies. They deem a firm's ability to explore new opportunities, and its "strategic flexibility" as important conditions of survival and successful development in emerging economies. Various other papers indirectly stress the role of bridging capital by pointing out the benefits of extensive inter-firm networking (Koka & Prescott, 2002; Spicer, Kogut & McDermott, 2000) and the importance of environmental scanning (May, Stewart & Sweo, 2000). At least one study has identified the positive impact of weak ties networking for firm performance (Batjargal, 2003). Taken together, these findings provide suggestions for testing a hypothesis regarding the role of bridging social capital in SME growth which may take a firm beyond its usual comfort zone, and beyond familiar markets.

Hypothesis 1.1: Bridging capital of SMEs operating in emerging markets will be positively associated with an SME's growth outside its home region.

The extant literature is inconclusive regarding the effects of bonding ties on organizational outcomes. The limitations of strong bonding ties for cooperative behavior and overall firm development have been acknowledged (De Carolis & Saporito, 2006; Gargiulo & Benassi, 2000; Granovetter, 1985; Woolcock, 1998). Yet the main focus of researchers has been on the benefits derived from bonding capital such as better firm survival capability (Pennings, Lee & van Witteloostuijn, 1998) or improved performance (Cooke, Clifton & Oleaga, 2005; Leana & Pil, 2006). The value of bonding relations manifests itself through positive practices and effective firm processes (Collins & Clark, 2003; Maurer, Bartsch & Ebers, 2011). For instance, bonding capital increases mutual understanding and coherent actions (Peng, 2004; McCallum & O'Connell, 2009) and stimulates knowledge exchange and resources transfer (Pearson et al., 2008; Uzzi, 1996; Yli-Renko et al., 2002). Thus, bonding capital allows for overcoming the internal barriers to growth in a firm, both domestically and internationally (Cardoza & Fornes, 2011). Hence, strong bonding relations are expected to be related to SME growth as a measure of performance.

Hypothesis 1.2: Bonding capital of SMEs operating in emerging markets will be positively associated with SME growth.

Previous discussion suggested that the environmental conditions of emerging markets play an important role in defining SME social capital. However, some specific attributes of SMEs themselves may encourage firms to place more emphasis on creating more bonding or more bridging capital at a firm level. With many studies having been carried out into SMEs, there is still a lack of agreement on the theoretical conceptualiza-

tion of SMEs. In entrepreneurship research, SMEs are often associated with an individual entrepreneur and his/her behavior (Baker & Nelson, 2005; Lumpkin & Dess 1996; Wiklund & Shepherd, 2003b). In the field of international business studies, SMEs are often seen as innovative, actively internationalizing firms (McDougall, Shane & Oviatt, 1994; Zahra, Neubaum, & Naldi, 2007). A less known theoretical perspective on the nature of SMEs has been developed in the French literature. This deals with the specificity of SMEs in terms of their organization and management (D'Amboise & Muldowney, 1988; Julien, 1993, 1998; Torrès & Julien, 2005).

This latter “small business concept” fits well with the notion of social capital as it emphasizes the special nature of SMEs through SME management, and hence through internal relations within a firm, as well as the external relations with other actors. In short, it suggests that there are two major types of SMEs: 1) “traditional” small business; and 2) “anti-small business”, also known as “denatured” small business. Julien (1993, 1998) built a foundation for this concept by synthesizing some important characteristics of “traditional” small businesses into one framework. Firstly, he pointed out that traditional SMEs were engaged in informal, direct, and simple management practices and systems of information collection and exchange. Secondly, he argued that they preferred direct contact or dialogue when communicating internally and externally. Thirdly, he stated that SMEs used informal networks to stabilize their position in the external environment. Julien noted that the latter feature could be explained by the fact that most traditional SMEs operated in markets that were geographically and psychologically close.

Alongside this classic view of SMEs exists the phenomenon of small business “denaturing” (Messeghem, 2003; Torrès & Julien, 2005). These authors noticed that behavioral diversity among SMEs puts some of them outside (or on the boundaries) of the traditional small business concept. For instance, some SMEs adopt multiple product lines usually associated with large companies and use complex planning systems; they are fast on learning and innovation, and they compete internationally. “Although the anti-small business has the attributes of a large business, it is still small in size. In some ways, the anti-small business is a miniature big business” (Torrès & Julien, 2005: 363).

Torrès and Julien (2005) also referred to prior research and identified some environments that can lead to SME denaturing, including: 1) globalization of markets; 2) participation in alliances and business groups; and 3) adoption of modern data and quality management systems. Such factors can cause SMEs to become more explicit in management procedures, as well as less centralized and less informal. From the growth perspective, denaturing represents changes in the nature of SMEs, and hence exemplifies what Penrose (1959) refers to as “internal changes”, or the qualitative growth of a firm.

Thus, it is reasonable to expect that in emerging markets SMEs will be affected by the denaturing factors listed above; and hence the changes in SMEs’ nature will lead to the specific features of SME social capital, as a result of qualitative growth. For instance, some SMEs may face the need to develop more bridging connections to be able to capture more opportunities, maintain complex strategies and keep up higher business standards than their traditional SME counterparts.

Nowadays globalization affects countries in all parts of the world and information management systems have become standard for any business organization of whatever size. Also, it is well known that business groups dominate emerging and transition economies around the world (Khanna & Palepu, 1997). Hence factors that can create an SME denaturing environment are as present in emerging countries as in mature ones. For example, SMEs that are members of business groups may lose at least part of their independence and unique identity in terms of their strategy formulation, their management system, and their choice of partners. So they will rely less on the bonding core of their firm, and they will be more open to sharing or delegating some strategic business functions to their business group partners. At the same time, SMEs within business groups need to maintain a wide variety of relationships with other group members, and with external parties that may be geographically and socially distant. As such, they have more bridging ties with other actors; and those ties reflect all kinds of relations, such as: 1) market or social; 2) arm's length, formal or strong, informal; and 3) short or long-term. On the other hand, SMEs which are willing to compete in larger markets may need to adapt to higher levels of competition, product and management requirements. Hence they will have to connect to greater business communities, carry out more environmental scanning, and become part of various networks.

Overall, denatured SMEs will pay more attention to creating bridging social capital than traditional SMEs in order to be better positioned in the market, and to capitalize on opportunities that arise from their environment. Denatured SMEs will place less emphasis on bonding capital as, by definition, they are more explicit in their organization

and activities. Thus, the idiosyncratic nature of bonding ties will not fit well into the more formal and open context of denatured SMEs. Hence, in the context of this study, I expect that denatured SMEs will have more horizontal bridging capital and less bonding social capital than their traditional counterparts.

Hypothesis 1.3: Denatured SMEs will exhibit more horizontal bridging ties than traditional SMEs.

Hypothesis 1.4: Denatured SMEs will exhibit less bonding capital than traditional SMEs.

3.1.2. Scope of SME Growth and Complexity of Business Partnerships

3.1.2.1. Factors Contributing to Multi-Dimensional Process of Growth

As any business organizations, SMEs change during their life cycle. Most of those changes can be defined as SME growth; and that growth can be either qualitative or quantitative. Penrose's broad view of the phenomenon of firm growth (1959) allows for considering SME growth as SME development. Thus, qualitative changes such as SME denaturing may be accompanied by quantitative changes, such as an increase in output or size. This multi-dimensional process implies that firm growth may have various sources and effects (Davidsson & Wiklund, 2000). Bonding and bridging social capital are among relatively underexplored determinants of firm growth, which includes both quantitative and qualitative development.

There are various growth options available to any firm. Some are related to firm or industry lifecycle; others require changes in firm processes, or call for behavioral adjustments on the part of management and employees. For instance, strengthening a firm's

market position, entering a new market, or exploring collaborative opportunities in the home country and abroad represent acts of entrepreneurship by a firm (Shane and Venkataraman, 2000; Wiklund & Shepherd, 2003b). Entrepreneurship literature emphasizes several factors that are essential for successful firm development. These include: 1) discovery and exploration of new opportunities, new information; 2) knowledge acquisition, leverage and transfer; 3) legitimacy-building, capacity-enhancing; and 4) coping with environmental uncertainty. The extant literature suggests that there are many benefits derived by firms from bonding and bridging social capital (see Appendix B). As such, firm growth in its broad sense is shaped by the creation and use of various social, hierarchical, and market relations that comprise firm social capital.

How do the two distinct types of social capital; bonding and bridging; affect firm development, and in particular the scope of SME growth? As mentioned above, SMEs in general have less access to resources than larger companies. They do not usually have a cushion of slack resources, and depend greatly on relational capital. For SMEs, social capital can be an extremely important asset in managing their daily activities, and in planning their developmental efforts. Empirical studies suggest that SMEs from emerging markets rely on social networks even more in trying to compensate for their scarce resources and deficient external environments, while at the same time gaining access to new markets and business opportunities (Chen & Chen, 1998; Tung & Chung, 2010; Zhao & Hsu, 2007).

Prior research suggests that the discovery of entrepreneurial opportunities takes place through recognition rather than searching (Kirzner 1997; Shane, 2000). This means

that the distribution of knowledge and information is essential for an opportunity to be discovered; and that social capital shapes this entrepreneurial discovery through a combination of bonding and bridging relations. The type and the level of knowledge or information (internal or external) affect the involvement of any given firm in the exploration or exploitation of discovered opportunities (Li & Atuahene-Gima, 2001; Gaur & Lu, 2007). The industry environment also influences SMEs' behavior, as some industries demand exploration, and others exploitation of market opportunities (Rowley et al., 2000). The authors conclude that "strong ties are positively related to firm performance when the environment demands a relatively high degree of exploitation, and weak ties are beneficial for exploration purposes" (Rowley et al, 2000: 384). Exploitation requires more in-depth understanding of an industry, and deeper, fine-grained information that can be received through bonding relations. It implies an active search for new ideas and opportunities, and thus requires more reliance on bridging ties.

3.1.2.2. Complementarity of Bonding and Bridging Capital for Qualitative SME Growth

The earlier discussion introduced some evidence that bridging connections were essential for firms seeking to pursue growth beyond local markets (McMillan & Woodruff, 2002), and explore more opportunities (Wright et al., 2005). The role of bonding capital for development has not been explicitly determined. Yet bonding ties provide coherence and meaningfulness for a firm (McCallum & O'Connell, 2009; Pearson et al., 2008); and bonding social capital is necessary for efficient use of firm resources including knowledge (Galunic & Rodan, 1998; Yli-Renko et al., 2002). According to

Woolcock's (1998) analysis of micro and macroeconomic development, bridging ties need to be complemented by bonding ties for any growth to take place.

I believe that SMEs as organizations integrate both macro and micro perspectives on development viewed as growth. Firstly, the extant literature often associates SMEs with their individual founders, freedom of entrepreneurial action and more proactive market behavior (Covin & Slevin, 1989; Lumpkin & Dess, 1996). Secondly, from the perspective of embeddedness (Granovetter, 1985) SMEs are connected to, and reflect the overall system of relations at higher levels such as industry, economy or the nation state. With these associations in mind, it is reasonable to build upon Woolcock's (1998) conceptualization of economic development and extend his logic towards emerging markets SMEs. Hence a linear combination of bonding and bridging social capital will lead to SME growth, provided that at least one of the variables in the equation exceeds the "low" rank. I must notice that "low" level of bonding or bridging social capital reflects the relative lack of it, but not the full absence of respective relations (such as trust among firm members or connections to external environment).

I would argue that the quadrant described by Woolcock (1998) as a case of low bonding and low bridging capital which is not applicable to SMEs as organizations; even putting aside the fact that this particular combination of internal and external ties is extremely rare, and reflects a "no development" outcome. Firstly, in Woolcock's interpretation, "low" bonding capital refers to the absence of trust and common identity; and to there being no common goals and interests among group members. For any SME to establish itself and to operate as a collective actor, it needs to demonstrate some degree of

coherence and bonding relations among firm members. Thus, the bonding social capital of an SME always exceeds the “low” rank. Second, “low” bridging capital refers to the isolation of a firm from any social or business networks. SMEs as organizations have to satisfy certain legal criteria, and at least comply with national business regulations; and they have to sell their products and services. Hence, they have to be connected to the external environment through interactions with authorities, market and societal structures. Thus an SME can not operate autonomously, and its bridging capital needs to be above the “low” level.

By factoring in a high degree of environmental uncertainty in emerging markets, I will further elaborate on the choice of scope of growth, and type of networking strategies associated with various growth options. I would posit that, depending on the overall level of bonding and bridging social capital, SMEs in emerging markets choose certain strategies of growth accompanied by specific behavior (Figure 2).

The level of development of bridging social capital sets limits to the scope of SMEs’ growth. If bridging capital is well developed, and bonding capital is relatively weak, SMEs will tend to grow outside their home region, and get involved in arm’s-length networking. Building on the previous analysis, I would expect that bridging ties may evoke more formal, and more complex contractual relationships, including some value chain activities. Thus, the scale of growth in terms of diversity of business dealings may be large. Putting together the scale and the scope of growth, SMEs with high bridging but limited bonding social capital may enter moderately distant markets, and make broader collaborative agreements outside their “social group”.

The higher a firm's social capital is the greater firm's involvement in transactions and in ownership of other business ventures is likely to be (Zahra, 2010). Thus, I would expect that SMEs with well-developed bonding and bridging ties will exhibit a greater scale and scope of growth. In fact, they will exemplify a greater extent of growth outside their home region, and complex contractual relations with other parties. Having both a strong bonding core and bridging networks to enhance their market opportunities, SMEs may try internationalization as a long-term, strategic developmental option. Having the advantages of both bonding and bridging ties, SMEs may be capable of conducting knowledge- and information-intensive activities, such as foreign market entry. Well developed bonding and bridging ties taken together may provide SMEs with an adequate amount of resources, and allow for such expansion. Taking into account the process of SME denaturing, we may expect that SMEs with highly developed and well-balanced bonding and bridging social capital will try to compete based on levels of competence and experience similar to those of large firms. We may also expect that SMEs engaged in the process of internationalizing will adopt a wider range of contractual activities relative to SMEs which operate in the domestic market only.

As discussed above, bonding capital provides the motivation for operating a SME and for seeking developmental opportunities. At the same time, too many strong ties and too much homogeneity limit access to new ideas and growth (Gargiulo & Benassi, 2000; Uzzi, 1997; Woolcock, 1998). Thus, greater reliance on bonding capital, together with insufficient bridging capital may limit the scope of SME growth, leading to the creation of local clusters of SME with common values and goals. These SMEs will stay in their

home region, and will pursue low-risk, reactive developmental strategies. Growth and networking options for these firms may include answering other firms' demands for local partners, or capitalizing on intra-firm information exchange and informal, trust-based in-group cooperation. Thus, the scale of growth will be limited to informal or direct contractual relations.

To summarize the previous discussion, SMEs with highly developed bonding and bridging capital will have greater opportunities for growth, and may attempt internationalization on a go-it-alone or a cooperative basis. SMEs with higher bridging and lower bonding capital will also have multiple developmental options available on a regional and national level. Finally, firms with higher bonding and lower bridging social capital will be limited to growth within their local market. Thus, SMEs will choose their geographic scope of growth according to the levels of their bonding and bridging social capital.

Hypothesis 2.1: SMEs with greater bridging capital will be more likely to select wide growth in a geographic scope.

Hypothesis 2.2: SMEs with greater bonding capital will be more likely to select wider growth in a geographic scope.

Continuing this line of argument, SMEs with highly developed bonding and bridging capital will pursue a greater variety of contractual relations, including complex business dealings such as domestic and foreign strategic alliances. Firms with higher bridging, but lower bonding capital will be involved in various domestic collaborations. SMEs with higher bonding and lower bridging social capital will maintain basic contrac-

tual relations such as direct domestic sales or purchasing. In other words, SMEs' growth can be exemplified in the complexity of their business dealings and is related to the levels of bonding and bridging social capital they can achieve.

Hypothesis 2.3: Greater bridging capital is more likely to lead to the utilization of more complex contracts.

Hypothesis 2.4: Greater bonding capital is more likely to lead to the utilization of more complex contracts.

3.1.3. Internationalization as a Special Case of SME Growth

Internationalization is defined as “the process of the firm’s becoming integrated in international economic activities” (Mathews 2006:16), and it covers the broad array of foreign operations. Stage models of internationalization (Johanson & Vahlne, 1997) have viewed internationalization as an incremental process of moving from low-risk activities such as indirect exporting to high-risk activities such as foreign direct investment (FDI). In the early 1990s, a new model of internationalization had been proposed for a group of firms generally referred to as “born globals” or “international new ventures” (McDougall, Shane, & Oviatt, 1994; Oviatt & McDougal, 1994, 1997; Rennie, 1993). International new ventures implemented the FDI route to foreign markets, raising capital, accessing other resources, and establishing their enterprises in multiple international locations. For these firms, their early internationalization has been attributed to their entrepreneurial capacities and their ability to identify and exploit foreign market opportunities, as well as to mobilize the necessary resources and capabilities. Yet another perspective incorporates social relations and inter-firm networks as the context of internationalization (Johanson &

Mattsson, 1998). Studying New Zealand international new ventures, Coviello (2006) found that for “born globals” business network ties were more important than social ones, and that third-party connections and referrals served as catalysts for internationalization.

Although many “born globals” are relatively small firms, not all SMEs follow the entrepreneurial approach and attempt early internationalization. Even though SME growth strategies do not exclude an opportunity to go international, many small firms grow domestically throughout their life cycle. Those SMEs choosing early and aggressive internationalization often have lower slack resources, less room for making mistakes, and a lower survival rate (Lyles et al., 2004). SMEs often rely on networking as a vehicle to overcome resource limitations and reduce risks of foreign market entry (Chen & Chen, 1998; Gulati, 1998). Thus there still is a debate regarding organizational and environmental factors encouraging the internationalization of SMEs (Westhead, Binks, Ucbasaran & Wright, 2002).

In the context of this study, there is some evidence that relational connections help small businesses to go global. The evidence, however, is mixed in terms of identifying what type of ties (strong or weak, social, market or hierarchical) are more important for helping SMEs to internationalize (see Coviello, 2006 for review). Several studies of SMEs from emerging and newly industrialized economies have attributed the discovery of international opportunities to strong, in-group ties with Asian diasporas in foreign countries (Assudani, 2009; Tung & Chung, 2010; Wu et al., 2007; Yiu et al, 2007; Zhao & Hsu, 2007). Bridging networks had helped Asian SMEs to develop business contacts that either led to exporting, or to establishing new ventures in foreign markets. Ethnic

and cultural ties were in the center of Asian SMEs' internationalization. It is interesting to note that, unlike the usual bridging connections that joined together heterogeneous groups, the Asian experience of SME internationalization refers to bridging ties between geographically distant, but ethnically and culturally homogenous groups. This raises the question if all SMEs from emerging markets tend to rely on strong bridging ties, or whether the Asian case is specific to the regional culture and traditions of business networking such as kinship and guanxi.

Aside from the opportunities available to emerging market SMEs through social capital, there are often other motives behind expanding abroad. For example, Chinese SMEs may choose to internationalize because of an unfavorable domestic institutional environment that limits their domestic growth opportunities (Boisot & Meyer, 2008; Cardoza & Fornes, 2011). Overall, regulative pressures in China stimulate firms to internationalize and escape the hostile domestic market when other growth options are restricted.

I expect that, despite their motives for internationalization, all SMEs that choose foreign expansion as a growth strategy will exhibit similarities in the structure of their organizational social capital. As Torrès and Julien (2005) suggest, when SMEs internationalize or go to geographically distant markets, they need to change their usual business coordination mechanisms. As such, they have to become less centralized in their management style, and develop more bridging connections to secure their survival in an unfamiliar environment. Thus, horizontal ties seem to be more beneficial for SMEs, as in the process of foreign expansion they can rely more on their abilities to explore, and learn

from other firms. Taking into account the resource limitations of SMEs, it is less likely that vertical ties will be used by SME as a vehicle to enter new markets. The power asymmetries between SMEs and the various authorities are too large for vertical ties to be instrumental in the process of SME internationalization. Thus, I would posit that SMEs will choose growth through internationalization if they develop more horizontal bridging ties in their business environment, compared to their counterparts who will choose to grow domestically.

Hypothesis 3: Internationalizing SMEs will exhibit more horizontal bridging ties than domestic SMEs.

3.2. Moderating Effects of Organizational and Institutional Environment

3.2.1. Human Capital and SME Development

The literature on SME growth recognizes the influence of human capital as one of the determinants of growth. Broadly defined, “human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways” (Coleman, 1988:100). Like any kind of capital asset, human capital is of value to a firm. Thus, human capital can facilitate or hinder firm behavior, including opportunity seeking, decision-making, formulation and implementation of strategies.

“Among the variables associated with the individual, a majority of studies found that for motivation, education, management experience, number of founders and functional skills, the influence on growth is positive” (Davidsson et al, 2007: 370).

Motivation is an important contributor to human capital. For instance, founders' and managers' growth intentions are positively related to actual SME growth, especially if supported by proper education and business experience (Wiklund & Shepherd, 2003a). Baum & Locke (2004) have found that "goals, self-efficacy, and communicated vision had direct effects on venture growth" (Baum & Locke, 2004: 587). The ability to discover and exploit opportunities for firm growth is also important (Covin and Slevin, 1997). In addition to its role in encouraging growth, the human capital of an entrepreneur has been recognized as a source of competitive advantage (Alvarez & Busenitz, 2001; Brush & Chaganti, 1998). "Growth orientation is particularly important for international growth, given the greater uncertainty and risks of international expansion compared to domestic growth" (Yli-Renko et al., 2002). With regard to qualities which are beneficial for the special case of international growth, researchers have identified "international business skills" (Chandler & Jansen, 1992; Hermann & Datta, 2002; Manolova et al., 2002; Reuber & Fisher, 1997), personal characteristics of managers (Aaby & Slater, 1989; Leonidou et al., 1998), and "perceptions of the environment" (Cavusgil, 1984) as factors positively related to internationalization.

While there is some debate regarding the effects of individual factors and the particular dimensions of human capital, the overall conclusion is that personal characteristics such as motivation, education, management experience, and team size contribute to firm growth, while gender effects are inconsistent.

Since SMEs in general have more resource limitations than larger companies (Manolova et al., 2002), it becomes even more essential to put their available resources to

their best use. As for the particular role of human capital in emerging markets, Puffer, McCarthy, & Peterson (2001) provide an illustration of growth and survival decisions in Russia, describing them as being affected by a “hostile environment” and by the “creative use of scarce resources” by entrepreneurs and managers. Overall, there is a need for more studies of managers’ cognitive abilities, and of human responses to environmental pressures (Wright et al., 2005)

Based on the existing studies it is, however, reasonable to conclude that the value of human capital for SME development and success increases as firms’ strategies become more complex or risky. I would expect SME human capital to relate to social capital, and to shape a firm’s processes and outcomes, including its growth strategies. In fact, human capital can affect the creation of social capital through the individual “human” factors attributed to every manager and employee of a firm. Since I propose the direct effect of SME social capital on the choice of growth strategy, I expect that human capital will condition this relationship.

Hypothesis 4.1: Human capital will positively moderate the relationship between bonding and bridging social capital and SME growth outcomes.

Hypothesis 4.2: Human capital will positively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.

Hypothesis 4.3: Human capital will positively moderate the relationship between bonding and bridging social capital and the complexity of SME contracts.

3.2.2. Environmental Embeddedness of SME

Like other organizations, SMEs operate in an external environment where multiple forces define socio-economic, political, and legal conditions, and shape the behavior and outcomes of economic actors. Institutional theory posits that institutions create the “rules of the game” in business and society, and create constraints on human and business interactions (North, 1990). North also notes that the major institutional arrangements are created by political, social and legal rules. The quality of an institutional environment thus depends on the level of development of these multiple rules, and varies significantly from country to country and among groups of countries. An institution-based view refers to the embeddedness of economic actors in their institutional environment (Peng et al., 2008). This means that the quality and specific characteristics of national institutions define the way a firm relates to its external environment. In emerging markets, institutional embeddedness seems more pronounced as formal institutional frameworks are relatively weak, and informal institutional arrangements prevail. In addition, with the lack of external institutional frameworks, firms rely on their own proactive behavior in securing their place in the market, and protecting themselves from unfavorable external factors.

According to Estrin et al. (2006), it is the institutional environment that distinguishes SME behavior, including growth options in emerging economies, and makes the overall experience of firms in emerging countries so different from experience obtained in mature economies. In emerging markets, firms develop customized, context-specific mechanisms to interact with their environment. Also, different types of external ties play an important role in establishing and maintaining these interactions. For instance, institu-

tional connections provide a firm with better access to the market (Li et al., 2009) as well as financial resources (Leuz & Oberholzer-Gee, 2006), government contracts, information and upcoming changes in regulations (Yiu et al., 2007). The external institutional environment sets the limits and creates the conditions for firm operations; it provokes specific firm behaviors aimed at achieving a better fit with national institutional frameworks, and stronger position in the market. Peng & Heath (1996) suggest that in emerging markets the institutional environment constraints the growth choices available to firms in terms of both the extent and direction of growth. In other words, the great importance of the institutional environment for firm behavior once again refers to firms' embeddedness in their country-specific social, market, and hierarchical relations. Thus, a firm's connection to its external environment, including its industry and institutional embeddedness, leads to its exposure to multiple opportunities and constraints that may affect its actions (McEvily & Zaheer, 1999).

Aside from institutional regulations, market size and level of competition, industry growth, economic and political uncertainty and even geographic location are among the factors that influence a firm's processes and outcomes. With regard to firm growth, Dess and Beard (1984) have identified environmental dimensions such as "dynamism, heterogeneity, hostility and munificence" that may stimulate or inhibit growth. At the same time, the exact outcome of environmental effects is difficult to estimate, because the effects may be contradictory, and because they interplay with the human components of a firm's behavior (Davidsson et al., 2007). As the previous section suggests, human motivation, goals and skills also affect growth, and their influence may be stronger than

other environmental effects. Thus, factors of external environment have their impact on firm growth; but those effects may not be the strongest ones.

However, I would posit that two dimensions of external environment, namely environmental uncertainty and environmental munificence, will play distinct roles in shaping SME growth. Environmental uncertainty is expected to have negative effects on firm growth, as unpredictable situations beyond a firm's control are harder to navigate (Smith, Baum & Locke, 2001). Higher uncertainty forces firms to choose lower risk strategies (Palmer & Wiseman, 1999); to retreat to more familiar environments and simpler organizational processes (Keats & Hitt, 1988). Unpredictable changes in external environment may be especially threatening for SMEs. Not only do they limit developmental opportunities, but also increase the impact of poor management choices (Covin & Slevin, 1989). Thus, greater uncertainty calls for cautious firm behavior, including developmental strategies. It also requires extensive monitoring and complex decision-making that may be too costly for resource restricted SMEs. Taking all the above factors into consideration, I propose that environmental uncertainty may impede the process of development, and hence weaken relations between SMEs' social capital and growth.

Hypothesis 4.4: Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and SME growth outcomes.

Hypothesis 4.5: Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.

Hypothesis 4.6: Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and the complexity of SME contracts.

The extant literature agrees on the positive role played by environmental munificence for firm performance. Indeed, higher munificence reflects greater market and industry capacity and positive developmental trends. It provides more resources, more strategic choices and supports firm growth (Castrogiovanni, 1991; Dess & Beard, 1984; Keats & Hitt, 1988). In other words, high munificence offers more options to cope with various challenges (Smith et al., 2001) and explore more opportunities (Cao et al., 2010). The positive effects of high growth industry environments on firm performance have been established in prior research (Porter, 1980). Munificent industry environment favors the growth of new ventures (McDougall, Covin, Robinson, & Herron, 1994); and the effect holds for firms in emerging markets (Peng & Luo, 2000). Thus, I would expect that greater environmental munificence will provide wider market opportunities, and strengthen relations between SMEs' social capital and growth.

Hypothesis 4.7: Environmental munificence will positively moderate the relationship between bonding and bridging social capital and SMEs' growth outcomes.

Hypothesis 4.8: Environmental munificence will positively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.

Hypothesis 4.9: Environmental munificence will positively moderate the relationship between bonding and bridging social capital and the complexity of SME contracts.

CHAPTER FOUR

4. RESEARCH METHODOLOGY

4.1. Sample and Procedure

Sample. The target sample includes SMEs (up to 500 employees) from the Novosibirsk region of Russia. Three hundred firms from the Novosibirsk City Chamber of Commerce databases and from local business listings were contacted about participation in this study, either by me directly, or by the Novosibirsk City Chamber of Commerce. Seventy one firms agreed to participate in this study, making the response rate 23.6%. While this response rate was relatively low, it was very similar to response rates reported in prior research conducted in emerging markets that ranged from 18% to 26% (Batjargal, 2007; Manolova et al., 2002; Wu et al., 2007). The selection of firms was made using a combination of a snowball technique and convenience sampling. Participating firms were identified 1) through the list of participants of the two major industrial exhibitions, SibPolitech and Sibstroyexpo; 2) through my personal contacts in Novosibirsk business community; and 3) following the expert advice received at the City Chamber of Commerce. This sample represents a mix of manufacturing firms from high- and low-tech industries (20 and 45 respectively). Most of the firms are privately owned, while some have a minor share of municipal ownership. Small businesses of 100 employees or less comprise 78% of the sample. The age of the firms ranges between 2 and 79 years, with an average age of 12.2 years. Young firms up to three years old comprise 18% of the sample, and mature firms of 20 years or more represent 11% of SMEs in the study. In terms of respondents, 38% of them were co-founders of SMEs participating in the study. The

overall industry experience among respondents varied from 2 to 43 years, with an average industry tenure of 8 years. Company tenure ranged between 2 and 23 years; on average respondents have worked in the surveyed companies for 6 years. Out of 71 questionnaires collected, 6 had some missing data that could not be verified or replaced through secondary sources of information. As a result, six firms were excluded from the subsequent analysis, and 65 firms comprised the working sample.

Instruments and Procedures. The CEOs of selected firms were contacted to solicit their participation, and as a result, the questionnaires (Appendix E and Appendix F) were filled in either by the CEOs themselves, or by one of the top managers, who were well informed of the firm's market development and growth. The participating firms and informants were notified that, while there were no direct benefits to be gained from participating in this study, the individual responses would be analyzed in order to develop a better understanding of the structure of social capital, and its impacts on the choice of firm growth strategy. Participants were offered an aggregated report on the results of this study, but most of them declined this offer. The data collection process took place from July to October 2011, during two field trips to Russia. All the questionnaires were distributed in person, and filled in on-site and in my presence. Each paper and pencil questionnaire took about 45 minutes to complete. In a small number of cases (about 15), a follow-up interview was conducted to elaborate on the survey questions, and to collect more in-depth responses to the topic of the study. Personal interviews were sought from contacts in sampled firms and conducted by myself. All the questionnaires were person-

ally delivered by me to Canada, where the data was checked for errors, properly coded, entered into an encrypted computer file, and stored on a secure computer at the JMSB.

In addition to questionnaires, the data on firm growth was validated through statistical reports collected by the Russian Federal State Statistics Service, and by its local representative office¹. Statistical reports containing the data on sales growth and industry codes for surveyed firms were received in December 2011 and January 2012 via email from Moscow and Novosibirsk offices of the Russian Federal State Statistics Service. Firm-level data on regional and international activities and partnerships was also verified via firm web pages, firm booklets and catalogues. Firm age data was verified through an on-line database of the Federal Tax Service of Russia. Industry-level information on industry growth rates for industries represented in this study was collected in January 2012 from the publicly available databases of the Russian Federal State Statistics Service.

4.2. Measures

All measures for this study were drawn from previously published research, which included previously validated multi-item scales, calculated ratios and parameters. Independent variables included the structural and relational dimensions of Bonding and

¹ I have conducted a paired-samples t-tests to compare the 2-year average sales growth rates calculated on the basis of self-reported data (questionnaires), and on the basis of official statistical reports. The test found no statistically significant differences in mean scores of self-reported ($M = 18.337$, $SD = 18.18$) and archival statistics-based ($M = 18.946$, $SD = 16.86$) average sales growth rates; $t(64) = .833$, $p=.408$. In other words, self-reported growth data does not differ from the data obtained from secondary sources. Thus I may expect that other self-reported assessments are rather objective, and that the measures calculated on the basis of questionnaires reflect the real situation in surveyed firms.

Bridging Social Capital. The dependent variable was Firm Growth (measured qualitatively and quantitatively). There were also three moderator variables: Human Capital, Environmental Uncertainty, and Environmental Munificence, and three control variables: Firm Age, Size, and Industry. Appendix C lists all the variables used in this study. Appendix D provides itemized scales for measures used in this study, all of them tested in prior research. Appendixes E and F present both English and Russian versions of the questionnaire used in this study.

4.2.1. Independent Variables

Researchers have taken many approaches to the operationalization of social capital, “reflecting perhaps the broad nature of the construct as well as the lack of a consistent view of what constitutes social capital” (Kirsh et al., 2010: 478). This study aims to try to understand the overall and specific effects of SME bonding and bridging social capital on firm growth strategy. This is why I used several complementary measures of social capital (see Appendix D).

Bonding Social Capital. I chose the operationalization of bonding social capital that 1) captured trust and information sharing as the major features of bonding relations, and 2) had been tested at organizational level of analysis. I have followed the approach to estimating bonding social capital developed in the prior research (Leana & Pil, 2006), asking participants to assess the situation in their firms as a whole, and not to refer to their own experience. Structural and relational dimensions of bonding social capital were assessed using multi-item scales.

The structural dimension of bonding social capital was measured by social interactions operationalized as *information sharing* among SME managers. Each of six items (Hyatt & Ruddy, 1997; Leana & Pil, 2006) was assessed using a 5-point Likert scale, from 1 (very untrue) to 5 (very true). Reported Cronbach's alpha = 0.89. An example of one of the items is: *Managers engage in open and honest communication with one another.*

Relational dimension was assessed by using a six-item measure of *trust* (Leana & Pil, 2006). Cronbach's alpha = 0.88. An example of one of the statements is: *Managers have confidence in one another in this firm.*

Bridging Social Capital. Bridging social capital was assessed following the theory-based approach (Granovetter, 1973), for measuring bridging relations by the number and strength of ties. This approach has been used in numerous empirical studies, and at multiple levels of analysis. The structural dimension of bridging social capital was measured by the *density* of horizontal and vertical ties. *Density* (i.e. number) of ties was measured as proposed by Boissevain (1974), by verifying if potentially existing ties do actually exist. Statements with dichotomous answers were used to verify the existence of certain vertical and horizontal ties. Examples of bridging ties include ethnic, cultural, professional, educational, and prior work experience; and ties with local, regional, national and foreign country authorities, and with industry authorities. In this study I asked about fifteen different external ties. Eight of them were horizontal, including connections with customers, suppliers, business partners, competitors, professional associations, chambers of commerce, foreign commercial structures, and ethnic associations (Diaspo-

ra). Seven were vertical, including connections with banks, financial agencies, government agencies, and also federal, regional, municipal and foreign government structures. A theoretical basis for the ties categorization was drawn upon analysis of external ties of emerging market firms (Cao, Simsek & Zhang, 2010; Xu et al., 2012; Yiu et al., 2007).

Relational dimension was assessed by the *strength* of horizontal and vertical ties. Strength of ties was measured by their reciprocity. On a dichotomous scale, reciprocity was coded as 1 for close relationships and 0 for distant relationships, following Granovetter (1973).²

4.2.2. Dependent Variables

In studies on SME growth, there are several accepted measures of growth, such as sales, assets, employment, market share, profit (see Davidsson et al., 2007 for review). In this study I have measured firm growth qualitatively and quantitatively. While assessing change in amount of growth is easy, measuring change in quality of SME operations is more difficult, and requires several indicators. Therefore, I have used three variables to measure SME growth: one quantitative (out-of-home region growth) and two qualitative (geographic scope of growth and complexity of contracts).

² Some researchers (Leana & Pil, 2006) measured the frequency of contacts (number of contacts per week), and time spent with external parties in addition to reciprocity of contacts. Parameters of frequency and time, however, were assessed for educational organizations, and for routine tasks. In the context of this study the vast majority of informants could not answer questions regarding frequency of contacts or time spent with external parties. Since I was asking to make an assessment for a firm as a whole, and not for individual contacts of CEOs or top managers, none of informants could provide an aggregated assessment for their firm. All informants have explained to me that business processes are non-routine, and external contacts vary significantly across individual employees or departments, and during certain times of a year.

Total Growth was measured as an average percentage of sales growth for two years, following Florin, Lubatkin & Schulze (2003), and Zahra, Ireland & Hitt (2000). This relative growth indicator is the most general to firms, representing several industries; and it is commonly used in studies of firm performance (Capon, Farley & Hoenig, 1990). I have chosen 2008 and 2010 as my reference years, and have omitted the sales data reported for 2009 as this was the hardest year of recession for Russian business. Most of the business indicators were significantly lower in 2009 than in 2008 and in preceding years, and by eliminating this crisis year from my calculations I have attempted to minimize the negative macroeconomic effects on my dependent variable.

Out of home region growth was calculated as total growth weighted by the share of SME revenue from all activities outside their local market, mirroring the measure of international growth widely used in prior studies (Bonaccorsi, 1992; Calof, 1994; Zahra et al., 2007).

Two qualitative measures of growth were developed for the assessment of the scope of growth (local, regional, or international) and complexity of contractual relations (domestic direct contracts, domestic contracts (both direct and through intermediaries) and domestic and international contracts (both direct and through intermediaries)).

Geographic scope of growth was measured by the type of markets in which SMEs operate. This measure reflects direction of SME growth, and it qualitatively mimics the measure of geographic scope (number of markets) that has been well established in the literature on internationalization (Zahra et al., 1997; Zahra et al, 2007 Sullivan, 1994; Tallman & Li, 1996). The data was categorically coded as 1 if SME only operated in its

home region; 2 if SME worked in other regions or nation-wide, and 3 if SME was involved in any international activities.

Complexity of contracts reflects on qualitative changes in SME activities. This parameter of growth was measured by the scale and sophistication of SME business dealings, using Manolova et al.'s (2002) measure of internationalization. Each participant was asked about his or her firm's involvement in any of the following activities: import, direct export, and export through intermediaries, licensing (product or service), contracting (agency or distribution), franchises, direct sales and direct purchasing. Each of these eight items was measured dichotomously (1 if yes, 0 otherwise). Answers were later coded in 3 categories reflecting the complexity of SME contractual relations. If a SME was only involved in direct domestic sales or purchasing, it was coded as 1. If in addition to that the SME had any agency or distribution agreements, it was coded as 2. And finally, if the SME was involved in all the previously mentioned types of relations, and had any foreign contracts or partnerships, it was coded as 3. These three categories allowed for the assessment of the overall complexity of SME business dealings, from direct contacts with customers and suppliers to contacts through domestic and foreign intermediaries, namely agents or alliance partners.

4.2.3. Control Variables

All research is affected by the presence of confounding variables that could influence the tested relationships. The effect of confounding variables should be minimized by the various kinds of controls. In addition I controlled for firm age, size, and industry. I also planned to control for firm ownership, but since most of the companies in my sam-

ple are privately owned, and just a small fraction of them identified themselves as a first-generation family business, I decided to omit the ownership control variable.

Firm age was measured by the number of years as of SME founding, not taking into account changes in firm ownership or name. The data on age was collected via questionnaires, but it was also verified through the publicly available databases of the Federal Tax Service of Russia. Firm age is expected to positively correlate with organizational social capital, as this intangible resource takes time to develop. Over a longer period of time, firms may establish more bridging ties, or may strengthen their bonding relations. Thus, controlling for firm age was essential.

Firm size was measured as the natural logarithm of the number of employees (full-time), following Lu and Beamish (2001). Employment data was collected from questionnaires, and verified by using such sources as SME web sites, or information booklets. Statistical data on employment in private firms in Russia is considered confidential, and cannot be verified through the Russian Federal Statistics Service.

Industry. Several industries in the sample they were coded as high to medium-technology (1) or medium to low-technology (0), following OECD's (2011) classification of manufacturing industries into categories based on R&D intensities. It is possible that the type of industry may influence firm growth. Empirical studies have supported the link between R&D expenditures and firm growth (Coad & Rao, 2010; Klette & Griliches, 2000). Thus it is reasonable to expect that depending on the level of their R&D spending, firms may have to be more aggressive in their growth to be able to generate more revenues, and recuperate their R&D investments.

SME denaturing was assessed through business group membership. This parameter serves as an indicator of denaturing context. Business group affiliation captures many of characteristics of denatured SMEs: wider markets, formal management practices, reporting systems (Torrès & Julien, 2005). In Russian business practices business groups, also known as “groups of companies” have to have formal agreements and specific contracts covering the basis of relationships among members. As such, business group membership does reflect a higher level of formality in SME management in comparison with traditional SMEs. Thus, while this parameter was not controlled for, the variable of *denaturing* allowed comparing bonding and bridging social capital for different types of SMEs. It served as a proxy for denaturing environment, and not as a measure of SME denaturing. *Denaturing* was coded as 1 if the SME was affiliated with a business group and 0 otherwise.

4.2.4. Moderators

There are three moderator variables in this study: human capital, environmental uncertainty and environmental munificence (both reflecting the external environment).

Human Capital was assessed using *education*, *experience*, and *aspiration for growth* (Wiklund & Shepherd, 2003a). These measures are highly relevant to this study as previously they have been used in SME growth research.

Education was measured by asking respondents about the highest level of completed education. The level of education was recorded with reference to years of education.

Experience was measured by summarizing three dichotomous variables: start-up experience, management experience, and experience of working in rapidly growing organizations. *Start-up experience* (item HC1) was coded as 1 if a respondent had started another business (prior to starting his/her current business), and 0 otherwise. *Management experience* (item HC2) was coded as 1 if a respondent had worked as a manager in any other organization for at least a year, and 0 otherwise. *Rapid growth experience* (item HC3) was coded as 1 if a respondent had worked as a manager in organizations with annual sales growth of at least 20%, and 0 otherwise. All three scores were summarized to measure the overall experience.

Aspiration for growth is the measure often used to assess owners and managers motivation for growth. Thus it captures characteristics of human capital, such as intentions and abilities to sustain growth, and not just reflect passive expectations of growth outcomes. This variable was assessed using a four-item measure (Wiklund & Shepherd, 2003a). Two items were assessed using a 7-point Likert scale, from 1 (very negative) to 7 (very positive). Two more items were assessed with one open-ended question each, and the answers were later converted into two seven-point scales. The reported Cronbach's alpha for this measure was 0.72. An example of one of the questions is: *What is your assessment of a 25 percent increase in your firm sales in five years?*

Environmental uncertainty and *environmental munificence* represent parameters of external environment. *Environmental uncertainty* had been used in prior research (Xu et al., 2012). This measure consists of six items, assessed on a 7-point Likert scale, from 1 (disagree very strongly) to 7 (agree very strongly). The reported Cronbach's alpha =

0.76. An example of an item under question is: *It is important for our business to develop strategies that are competitor-oriented in the long run.*

Environmental munificence was measured by *industry growth rate* calculated as an average percentage of industry revenue increase for the last 3 years preceding data collection (2008-2010). This measure is often referred to as an indicator of external pressure to grow. It has been used in multiple studies.

4.2.5. Design limitations

There are number of limitations of this study that need to be mentioned. Firstly, the cross-sectional nature of this study only allows for a snap-shot of a firm's social capital and firm growth. Capturing the changes in variables being studied could improve the generalizability of results, and provide a better understanding of SME strategy-making. However, considering the difficulties of obtaining the data from both primary and secondary sources, I have decided to postpone the longitudinal analysis until the future, hoping to use it for the development and refinement of the results of this study.

Secondly, the common method bias needs to be controlled for (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). I only have one informant per each company, and while it is not uncommon to rely on self-reported, single source data while dealing with SMEs, I made all possible efforts to minimize possible bias. I have verified several variables using secondary data sources. A firm-specific measure of firm total growth for 2008 and 2010 and industry codes were obtained from the Russian Federal Statistics Service. Firm age was checked using the data available from Federal Tax Service of Russia. Self-reported information on the scope and scale of growth was verified through firm websites

and catalogues. Industry growth rates were obtained from the reports published by the Russian Federal Statistics Service. Industry codes were recoded in a dichotomous control variable; scale and scope of firm growth were each coded in three-level categorical variables as described in sections 4.2.2 - 4.2.3.

Thirdly, sample size and structure is something of an issue. I used a relatively small sample (65 firms); and the selection of firms was not random, but was made on the grounds of recommendations of the local experts. I received references from senior managers of the Novosibirsk City Chamber of Commerce, and the Department of Industrial Development, Innovations and Entrepreneurship of the Novosibirsk City Administration. Some participants were sought based on my personal connections with former colleagues who became business owners. Overall, all companies included in the working sample satisfy criteria of being less than 500 employees in size, and being a manufacturing firm working in either the business or the consumer sector. About 70% of the sample consisted of firms located in the city of Novosibirsk, or in the Novosibirsk region of Siberia, while about 30% of the firms were located in neighboring regions. I believe I achieved sufficient variability in the characteristics of social capital, as well as in control and outcome variables in my sample (See Table 1). The generalizability of results may be an issue because of the sample size, which also restricts the choice of analytical procedures.

4.2.6. Analytical Procedures

A pilot study using the data collected from a student sample (undergraduate or MBA students) was conducted before major primary data collection. As a preliminary step, I assessed the factor structure using exploratory and confirmatory *factor analyses* as

some questionnaire items were slightly reworded in the process of translation, and I wanted to ensure that they had loaded on their appropriate factors in excess of .3, the criterion commonly used to interpret factor loadings as being meaningful. I also assessed the reliability of all scale-based measures. I made some modifications to the back-translated questionnaire and these are described in the next section of this study.

Descriptive statistics (means, standard deviations and correlations) are presented for all variables in this study. *Zero-order correlation analysis* was used to assess the relationships between variables (variable means, standard deviations, and zero-order Pearson correlations).

Statistical techniques for comparing groups were applied to comparisons of elements of bonding and bridging social capital between different types of SMEs, and between SMEs that implemented various growth strategies. T-tests, one-way, and two-way between groups analysis of variance were used to assess between-group differences in mean scores of density of horizontal ties and trust.

Hierarchical Regression Analyses, including multiple regression and logistic regression were used to examine the main effects between dependent and independent variables. In the process of hierarchical multiple regression analysis, control variables were entered in the regression model and the variables of interest followed. To examine the *moderation effects*, a set of exploratory regressions was proposed, following Baron and Kenny's (1986) suggestion to use a three-step hierarchical analysis for the testing of simple moderator variable effects. In the first step, an independent variable was entered in the regression. In the second step the moderator variable was added. In the third step, a

multiplicative cross-product term was added. If there had been increase in explained variance at the third step, as compared to the second step, then the interaction of the independent and moderator variables would be considered proven.

CHAPTER FIVE

5. RESULTS

5.1. Measures Pre-test

The questionnaire was back translated into Russian, and the measures were pre-tested using the data collected from 32 graduate students with current employment in Russian SMEs. Principal components analysis (PCA) was applied to investigate the structure of adapted and translated measures, and reliability analysis was used to assess the internal consistency of scales in the Russian language. The number of cases per item was adequate (at least five), and inter-correlations among items were moderate ($r < .3$) suggesting that the data set was suitable for factor analysis (Tabachnick & Fidell, 2007). The factorability of the data was also supported by the statistical measures of Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO)'s measure of sampling adequacy. For all tested scales (information sharing, trust, aspiration for growth, and environmental uncertainty), Bartlett's test was significant at $p < 0.000$ level, and KMO index ranged from .755 to .848, suggesting that the minimum requirements for factor analysis ($KMO > .6$) were being met (Tabachnick & Fidel, 2007). A one-component solution was reached for each of the measures. To check the reliability of the scales, Cronbach's alpha coefficients were obtained using SPSS reliability analysis. Reverse items from the measures of *trust* and *environmental uncertainty* were recalculated prior to running the procedure. The literature suggests that Cronbach's alpha coefficients should be above .7 (DeVellis, 2003) to indicate the scale's internal consistency. As a result of reliability testing, the six-item scales for *trust* and *environmental uncertainty* were modified to im-

prove their internal consistency. Item T6 was removed from the *trust* measure (several inter-item correlations with $r < .3$, and item-total correlation $r = .423$), and item EU4 was removed from *environmental uncertainty* measure (negative inter-item correlations with $-.329 < r < -.051$, and item-total correlation $r = -.242$). Cronbach's alpha values for *information sharing*, *trust*, *aspiration for growth*, and *environmental uncertainty* ranged from .758 to .936, suggesting that all the translated and modified scales were reliable measures of underlying constructs.

5.2. Preliminary Analyses

Scales reliability analyses. After the data collection was complete, and before preliminary data analysis was conducted, reliability tests were repeated for the five scale-based measures used in the questionnaire instrument. As a result, three scales were modified, and items with low item-total correlations were removed to improve the scales' internal consistency. The following items were removed: IS4 ($r = .253$) from the scale measuring *information sharing*, item T5 ($r = .179$) from the scale measuring *trust*, and item HC1 ($r = .292$) from the scale measuring human capital *experience*. The resulting values of Cronbach's alpha were acceptable for *information sharing* ($\alpha = .762$), human capital *experience* ($\alpha = 0.790$) and *aspiration for growth* ($\alpha = 0.725$). The Cronbach's alpha scores for *trust* ($\alpha = 0.801$), and *environmental uncertainty* ($\alpha = 0.820$) were good. It is worth noticing that for short scales of less than ten items, it is common to have Cronbach's alpha values of less than .7 (Pallant, 2007). If Cronbach's alpha is at .5 level it is recommended that inter-item correlations between .2 and .4 should be reported (Briggs & Cheek, 1986). Even though none of the measures used in this study had low

Cronbach's alpha scores, I performed an additional screening of mean inter-item correlations to make sure that they met the above mentioned requirements. In fact, the inter-item correlations for all the scales were between .360 and .757. Data collected was suitable for measures of social capital

Assessment of data normality. Since the data was to be analyzed via regression analysis, it was necessary to ensure "normal" distribution of observed variables. The examination of normality was based on statistical and graphical methods. Skewness and kurtosis values were used to assess the symmetry and "peakedness" of distributions. Statistical tests of normality were performed via Kolmogorov-Smirnov statistics, checking for non-significant results ($p > .05$), and accompanied by assessment of histograms, expected normal probability plots and detrended expected normal probability plots. The shape of the distribution was either normal, or slightly deviated from normal for *size (LN employees)*, *aspiration for growth*, *environmental uncertainty*, *density of horizontal ties*, *density of vertical ties*, and *strength of horizontal ties*.

Various transformations were attempted to normalize the distributions of continuous variables. The variables of *information sharing* and *trust*, both negatively skewed (-1.747 and -.699 respectively) were transformed via reflect and square root procedures; with transformed variables meeting normality assumptions. Logarithm transformations were applied to variables of *age* (skewness = 3.279, kurtosis = 12.07), and *out of home region growth* (skewness = 1.845, kurtosis = 2.995). The resulting distributions were significantly improved, but still deviated a little from normal. The variable of *strength of*

vertical ties (skewness = 2.127, kurtosis = 4.281) had slightly improved distribution after attempting logarithmic and inverse procedures that had very similar results.

Screening for outliers. A check for univariate outliers was performed as part of the normality assessment procedure. Two outliers for the variable of *age* and four outliers for the variable of *out of home region growth* were identified through box plots. After examining the outlier cases I checked for data accuracy and for the relevance of outlier cases to the sample. Since the outliers were a legitimate part of the sample I decided to keep the cases with extreme scores, but I changed the scores as recommended by Tabachnick & Fidell (2007). The outlier cases were assigned scores that were one unit larger than the next most extreme score in the distribution. Thus the modified outlier cases were still deviant, but their impact was reduced. After locating univariate outliers, I checked for the presence of multivariate outliers using Mahalanobis distance statistics. No multivariate outliers were found in the sample.

Descriptive statistics and bivariate correlations. Table 1 presents the descriptive statistics and correlation matrix for all the variables in this study. The zero-order correlations between *information sharing* and outcome variables of *out of home region growth*, *scope of growth* and *complexity of contracts* were weak and not significant at least at $p < 0.1$; thus the variable of *information sharing* was excluded from the following regression analysis. The bivariate correlations between dimensions of bonding capital were strong and significant ($r = .757$, $p < .01$), corresponding to the results reported by Leana & Pil (2006), and supporting the multidimensionality of bonding capital. Correlations between measures of bridging capital; specifically, between the *density of horizontal ties* and den-

sity of vertical ties and between the *strength of horizontal ties* and *strength of vertical ties* were low to moderate, and all were significant, allowing for the use of these variables in subsequent analysis without aggregation.

5.3. Tests of Hypotheses

5.3.1. Testing Hypotheses comparing Bonding and Bridging Social Capital of “Denatured” and “Traditional” SMEs

A series of tests were performed to compare types of social capital between different groups of SMEs. Hypotheses 1.3 and 1.4 predicted that parameters of bonding and bridging social capital were different for denatured SMEs, as compared to traditional SMEs. An independent samples t-test was performed in SPSS in order to compare mean scores for *density of horizontal ties* and *trust* as measures of bridging and bonding capital, respectively. A one-way multivariate analysis of variance (MANOVA) was considered for testing group differences, but dependent variables did not fully satisfy the requirements for multivariate analysis. MANOVA works best if dependent variables are highly negatively correlated, or moderately correlated in any direction; but this technique is not attractive if variables are highly positively correlated, or weakly correlated (Tabachnick & Fidell, 2007). The latter is the case with measures of bonding and bridging capital that were almost uncorrelated. Thus, two independent samples t-tests were performed to test hypotheses about the build up of social capital across different types of SME.

Prior to the application of this statistical technique, general assumptions of independence of variation, normality of distribution were checked for; and the homogeneity of variance was taken into consideration. Another consideration needs to be mentioned,

which applies to the possibility of having non-significant results due to insufficient power. I followed Stevens' (1996) suggestion that with small group sizes the "alpha" level of significance was to be set at .1 or .15 in order to decrease the probability of a Type II error. Since my sample contained 65 observations, the approximate size of groups was from 20 (for three groups comparison) to 30 cases (for two groups), which put them in the "small size" category. I set the cut-off level of significance at .15 in order to capture a statistically significant difference between groups. The effect size was calculated to assess the relative magnitude of the differences, as suggested by Cohen (1988).

Independent samples t-tests found significant differences in mean scores of tested parameters of bonding and bridging social capital for denatured and traditional SMEs. There was a significant difference in scores of *density of horizontal ties* for denatured SMEs ($M = 4.55$, $SD = 1.15$) and traditional SMEs ($M = 4.09$, $SD = 1.42$; $t(63) = 1.43$, $p = .16$, two-tailed). The magnitude of differences in the means (mean difference = .46, 95% CI: -.19 to 1.11) was small (eta squared = 0.031). Significant differences were also found for scores of *trust*; it was lower for denatured SMEs ($M = 15.8$, $SD = 2.9$) than for traditional SMEs ($M = 16.82$, $SD = 2.05$; $t(63) = 1.65$, $p = .10$, two-tailed). The magnitude of differences in the means for *trust* (mean difference = 1.03, 95% CI: -.20 to 2.29) was small (eta squared = .041).

Overall, hypothesis 1.3 was supported, as denatured SMEs had a slightly higher *density of horizontal ties* than traditional SMEs. Hypothesis 1.4 was supported, as scores for *trust* as the measure of bonding social capital were "significantly" higher for traditional SMEs than for denatured ones. For all the measures tested the effect size was

small, meaning that only 3% of variance in *density of horizontal ties*, and 4% of variance in *trust* were explained by SME denaturing. The test results indicated that denatured SMEs had more horizontal ties to the external environment; and thus they may have been better positioned in terms of accessing new market or social opportunities than traditional SMEs. The latter group, on the other hand, had more trust among individuals in a firm; and thus traditional SMEs may rely more on internal effectiveness, on firm-specific resources and capabilities than their denatured counterparts.

5.3.2. Testing Hypothesis comparing Bridging Social Capital of International and Domestic SMEs

To test hypothesis 3, I moved the analysis further along than testing mean differences in scores for SMEs who chose internationalization, and those who stayed within national borders. Considering that a significant difference was found for scores of *density of horizontal ties* for denatured and traditional firms, I chose to conduct a two-way between-groups analysis of variance. I decided to explore the impact of both SME internationalization and SME denaturing on the *density of horizontal ties*. Regarding internationalization, firms were divided in two groups according to their scope of growth (domestic or international). The interaction effect between internationalization and denaturing was not statistically significant, $F(1, 61) = 1.30, p = .259$. There was a statistically significant main effect for internationalization, $F(1, 61) = 2.82, p = .1$. However, the effect size was small (partial eta squared = .044). And as expected, another significant main effect was recorded for SME denaturing, $F(1, 61) = 1.88, p = .17$; with small effect size

(partial eta squared = .03). Figures 3 and 4 provide a graphical illustration of between-group comparisons.

Looking further at between-group differences I conducted a one-way ANOVA with post-hoc tests to explore where exactly the differences in bridging capital between international and domestic SMEs occurred. In addition to international SMEs, I further divided domestic firms into two groups, according to their scope of growth (local or regional); receiving three groups in total. There was a statistically significant difference at the $p < .05$ level in *density of horizontal ties* scores for the three groups: $F(2, 62) = 4.81$, $p < .01$. The actual difference in mean scores between the groups was rather small (see Figure 5). The effect size, calculated using eta squared, was 0.13, which makes it medium, and brings it close to large effect size (eta squared .14 or higher). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for “Local” group ($M = 3.70$, $S.D. = 1.19$) was significantly different from two other groups: the “International” group ($M = 4.82$, $S.D. = 1.18$), $p = .01$ and the “Regional” group ($M = 4.45$, $S.D. = 1.36$), $p = .12$. The “International” group did not differ significantly from the “Regional” group.

Hypothesis 3 predicted that international SMEs would have more horizontal bridging connections than domestic SMEs. The between-groups analysis found statistically significant differences between international SMEs and an aggregated group of domestic firms. A detailed comparison of three groups revealed that firms with a local orientation were significantly different from SMEs that pursued both regional and international strategies for growth. The effect size was moderate to large as 13.4% of variation in the density of horizontal ties was explained by the scope of SME growth. Thus, hy-

pothesis 3 was supported. This result provides more support for earlier findings on the importance of bridging connections for firms aiming to pursue growth outside their local market (Batjargal, 2003; McMillan & Woodruff, 2002). Apparently, a firm's "strategic flexibility" (Wright et al., 2005) created by bridging ties gives SMEs developmental choices that cover a variety of domestic (regional or nation-wide) and international growth options.

5.3.3. Testing the Model Linking Social Capital and SME Growth

Hypotheses 1.1 and 1.2 were tested using hierarchical multiple regression analysis. Taking into account the issue of generalizability, "for social science research, about 15 subjects per predictor are needed for a reliable equation" (Stevens, 1996: 72). Another, more conservative formula suggested by Tabachnick & Fidell (2007) allows the calculation of a minimum sample size based on the number of independent variables in equation: $N > 50 + 8m$ (where m = number of independent variables). Given my sample size of 65 observations, the number of predictors in all subsequent regressions will not exceed 4. A series of regressions were run to test the effects of various measures of bonding and bridging social capital on firm *out of home region growth*, while controlling for firm size, age, and industry.

The first set of 3-step regression models was run to test the direct relationships between variables of bridging social capital (*density* and *strength* of horizontal and vertical ties) and outcome variable were tested. Following this, I present the results for the Step 4 that tested for the presence of moderation effects for each proposed moderator. Since the

moderation tests included testing for interaction effects among variables, all independent variables and potential moderators were centered prior to regression analyses in order to attenuate possible multicollinearity issues (Tabachnick & Fidell, 2007).

Preliminary analyses were conducted to ensure no violations of normality, linearity, multicollinearity and homoscedasticity. Twelve models in total were run for bridging social capital. Six of them tested for direct and moderated associations between *density of horizontal ties*, *density of vertical ties*, and growth outcome, with results reported in Table 2. I repeated regression analyses for *strength of horizontal ties*, *strength of vertical ties*, and growth outcome. Table 3 reports the results of another six models that also included tests for direct and moderation effects.

For two of the models, the testing of direct effects was ended at Step 2. Models 1a and 1b tested the effects of the *density of vertical ties* and the *strength of vertical ties*, respectively. Firm *age*, *size*, and *industry* were entered at Step 1, explaining 23.2% (adjusted R square) of the variance in *out of home region growth*. After the entry of *density of vertical ties* at Step 2 the total explained variance decreased to 22%, $F(4, 60) = 5.523$, $p < .001$. This variable did not explain any additional variance in growth, $F \text{ change}(1, 60) = .012$, $p < .913$; and thus it was excluded from subsequent analysis. Similar results were received for the model that tested the *strength of vertical ties* at Step 2: the total variance explained by the model as a whole decreased to 22 %, $F(4, 60) = 5.519$, $p < .001$, $F \text{ change}(1, 60) = .000$, $p < .996$.

Models 2a through 6a tested the *density of horizontal ties*, and at Step 2 they demonstrated the increase in total variance explained from 23.3% to 27.2%, $F(4, 60) =$

6.933, $p < .001$. With the introduction of *density of horizontal ties*, and after controlling for age, size and industry the model explained an additional 3.9% of the variance in growth. Adjusted R squared change = 3.98%, F change (1, 60) = 4.310, $p < .042$. This variable was statistically significant, with a relatively small positive beta value ($\beta = .225$, $p < .042$).

Models 2b through 6b tested the *strength of horizontal ties*, and at Step 2 they also demonstrated the increase in total variance explained from 23.3% to 26.6% (adjusted R square), $F(4, 60) = 6.785$, $p < .001$. The *strength of horizontal ties* resulted in an additional 3.6% of variance explained, and in F change (1, 60) = 3.702, $p < .059$. This variable was also statistically significant, with a small positive beta value ($\beta = .210$, $p < .059$). Since the density and strength of the horizontal ties were moderately correlated, it was not surprising to have similar results from direct effect tests.

Models 1c through 5c tested the relationship between bonding social capital measured by trust and the SMEs' *total growth*. Control variables entered at Step 1 explained 4.2% (adjusted R square) of the variance in *total growth*. Adding the variable of *trust* at Step 2 demonstrated an increase in total variance explained from 4.2% to 5.7% (adjusted R square), $F(4, 60) = 1.963$, $p < .15$. *Trust* resulted in additional 1.5% of variance explained, and in F change (1, 60) = 1.982, $p < .17$. This variable was marginally significant, with a small positive beta value ($\beta = .170$, $p < .17$). The statistical significance of *trust* is rather low. However, for small samples (or small effect sizes) a more liberal α level is most appropriate for detecting a relationship or an effect (Stevens, 1996).

Hypotheses 1.1 and 1.2 proposed positive relationships between two types of SME social capital and growth. Specifically, hypothesis 1.1 predicted a positive relationship between bridging capital and *out of home region growth*. The results indicated that the *density and strength of vertical ties* had no effect on *out of home region growth*, but that the *density and strength of horizontal ties* had a small and significant positive direct effect on the outcome variable. Thus, Hypothesis 1.1 was partially supported. Both the structural (density) and relational (strength) dimensions of bridging social capital were essential for SME's ability to go beyond its local market. However, only horizontal ties were associated with SME growth. Vertical ties demonstrated no relation to the growth outcome. It is possible that bridging horizontal and vertical ties serve different purposes for SMEs. The former help in spanning boundaries, while the latter provide stability in the uncertain environment of emerging markets. The extant literature tends to generalize all bridging ties of a firm as having similar effects, but it may be that further detalization is needed to clarify the role of horizontal and vertical linkages.

Hypothesis 1.2 proposed a positive association between SME bonding social capital and total growth. I received some indication that *trust* had a discreet and marginally significant direct effect on the outcome variable of *total growth*. Bonding relations were associated with SME growth as a measure of firm performance, providing cautious support for prior studies. Thus, bonding social capital contributed to efficiency of SME processes, and encouraged growth. Hence I consider that hypothesis 1.2 was partially supported, provided that the variable of *trust* demonstrated a lower level of significance.

5.3.4. Testing for Moderation Effects

Hypotheses of direct relationships were tested using a series of hierarchical regression analyses in SPSS. At the next stage of the regression analysis I tested for moderation effects. Hypotheses 4.1 predicted that human capital (measured as *aspiration for growth, education, and experience*) would positively moderate the relationship between 1) independent variables of bridging social capital (*density of horizontal ties* and *strength of horizontal ties*) and the outcome variable of *out of home region growth*; and 2) independent variable of bonding social capital (*trust*) and the outcome variable of *total growth*. Hypothesis 4.4 and 4.7 predicted moderation effects of *environmental uncertainty*, and *environmental munificence* on the relationship between independent and outcome variables. For these analyses I have followed the procedure described by Baron & Kenny (1986). For each of proposed moderators I continued hierarchical multiple regression analysis, adding one of moderators at Step 3 for models 2a through 6a, 2b through 6b, and 1c through 5c. If there was a noticeable increase in explained variance at Step 3, as compared to Step 2, then I followed with a multiplicative cross-product term of independent variable and proposed moderator at Step 4. The interaction of the independent and moderator variables was considered proven if at the last step of analysis there was an increase in explained variance.

I tested for moderation effects by adding variables of human capital and external environment in three sets of regression models: 1) models 2a through 6a testing *density of horizontal ties*; 2) models 2b through 6b testing *strength of horizontal ties*; and 3) models 1c through 5c testing *trust*.

Firstly, I added *aspiration for growth* at step 3 in model 2a. The model testing *density of horizontal ties* improved at Step 3, as the results indicated a small increase in the total variance explained from 27.2% to 28.3.6% (adjusted R square), $F(5,59) = 6.045$, $p < .001$. *Aspiration for growth* contributed 1.1% of the variance explained, and F change (1, 59) = 1.855, $p < .178$. This variable, however, was not statistically significant, with a very small positive beta value ($\beta = .148$, $p < .178$). Since the model had improved in total, I moved on to Step 4 to test the interaction of two variables of interest, *density of horizontal ties* and *aspiration for growth*. Although a direct effect between *aspiration for growth* and the outcome variable was found, the Step 4 results indicated no moderation effect as there was no increase in total variance explained (the adjusted R square had slightly decreased to 28.2%). Adding variables of *education* and *experience* at Step 3 did not improve models 3a or 4a. The total variance explained decreased from 27.2% to 26.2% for *education*, and to 26.4% for *experience*. Thus, testing was ended at Step 3.

I continued testing for the moderation effects of *environmental uncertainty* and *environmental munificence*. Analyses of both variables had to stop at Step 3, as models 5a and 6a had not improved. Instead, after adding each of proposed moderators, the total variance explained by each model had dropped from 27.2% to 26% (adjusted R square). This means that the proposed variables did not add to their respective models, and that testing was to be discontinued. Thus, no moderation effects were found for the set of models testing the relationship between the *density of horizontal ties* and *out of home region growth*.

Models 2b to 6b tested potential moderators with the variable of *strength of horizontal ties*. Step 3 indicated that *aspiration for growth* had no effect on total variance explained, as it stayed practically unchanged, the adjusted R square was 26.7% at Step 3 vs. 26.6% at Step 2. There was a very small improvement of 0.01%, and F change (1, 59) = 1.158, $p < .286$. The next step resulted in decreasing explanatory power, with an adjusted R square of 25.5%. A product of *strength of horizontal ties* and *aspiration for growth* had deducted 1.2% out of total variance explained, F change (1, 58) = 0.30, $p < .863$. After adding *education* and *experience* to models 3b and 4b, the total variance explained had dropped from 26.6% to 25.9%, and to 26.3% respectively. Thus, with no improvement in the models, I discontinued testing at Step 3. Hence, no moderation effect was found for the variables of human capital. The same results were received for the variables of *environmental uncertainty* and *environmental munificence*. Both variables did not improve their respective models at Step 3. The adjusted R square values had decreased from 26.6% to 25.4% and 25.3% respectively, and testing was stopped.

Finally, models 1c through 5c tested the moderation effects of human capital and the external environment on the relationship between *trust* and total growth. *Aspiration for growth* had a direct effect on total variance, as explained in Step 3. The adjusted R square increased to 12.8% at Step 3 vs. 5.7% at Step 2 (F change (1, 59) = 5.882, $p < .018$). The beta value was small to moderate, and was statistically significant ($\beta = .289$, $p < .018$). The next step, however, indicated that adding a product of *trust* and *aspiration for growth* had a negative effect on the explanatory power of the model. The adjusted R square value decreased to 11.6%, F change (1, 58) = .232, $p < .632$. Thus, no moderation

effect was found for *aspiration for growth*. *Experience* had a very small positive and not significant direct effect ($\beta = .15$; $p < .293$); bringing total variance explained from 5.7% to 5.9% at Step3, with F change (1, 59) = 1.125, $p < .293$. Step 4 indicated no moderation effect, as the adjusted R square decreased to 4.3%, and the model did not improve. Adding *education* to model 2c led to a decrease in the total variance explained from 5.7% to 4.8%; and testing was stopped at Step 3.

Parallel results were received for variables of the external environment (models 4c and 5c). *Environmental uncertainty* had a positive direct effect at Step3. The adjusted R square increased to 6.1%, F change (1, 59) = 1.288, $p < .261$. The beta value was positive, small and not significant ($\beta = .149$; $p < .261$). Model 4c did not improve at Step 4 as adding an interaction term resulted in a decreased adjusted R square (4.6% vs. 6.1% at Step 3), indicating no moderation effect. *Environmental munificence* did not add to the model 5c; with lower total variance explained at Step 3 (4.8% vs. 5.7% at Step 2) and testing was discontinued.

Overall, the saturated models for bridging social capital tested at Steps 3 and 4 explained less variance in *out of home region growth* than the direct effect models at Step 2. Newly added variables (very small beta coefficients) had almost no effect and were not significant. The set of models for bonding social capital provided similar results: most of the saturated models did not show any noticeable increase in explaining the variance in *total growth*. The only variable that demonstrated positive and significant direct effect was human capital measured by *aspiration for growth*. No interaction effects were found, since for any of the models tested there was no increase in explained variance at Step 4.

Hence I concluded that expected moderation effects of both human capital and the external environment on relations between bonding and bridging social capital and SME growth were not found. Hypotheses 4.1, 4.4, and 4.7 were not supported. Human capital (*aspiration for growth*) had a statistically significant direct effect on *total growth* when entered in the regression equation together with *trust*. *Aspiration for growth* demonstrated a not significant direct effect on *out of home region growth* when entered in the regression equation together with *density of horizontal ties*. And so did the variables of *experience* and *environmental uncertainty* entered in their respective models together with *trust*. Thus, I found no support for the hypotheses predicting that human capital and the external environment would moderate the relationship between bonding social capital and SME growth, or between bridging social capital and SME growth.

Both growth outcomes tested in hypotheses 1.1 and 1.2, and in hypotheses 4.1, 4.4 and 4.7 reflected a qualitative increase in sales, and hence SME performance. The structural and relational dimensions of bridging social capital explained an additional 3.9% and 3.6% of variance in *out of home region growth* respectively, as compared to control variables alone. The relational dimension of bonding social capital contributed another 1.5% to the variance in total growth explained by the control variables. Adding human capital in regression equations accounted for an additional 1.1% to 7.1% of variance in the outcome variable. While testing for moderation returned negative results, I found evidence of the direct effects of human capital on SME growth. While the direct contribution of human capital was rather small in comparison to the effects of bridging social capital, it was quite noticeable in comparison to the effects of bonding capital. En-

environmental uncertainty also had a small direct contribution of 0.4% to the variance in SME total growth, and thus played a modest role in shaping one of the outcome variables. It was theorized that the external environment would have a weaker influence on SME growth than human capital. The environmental effects captured by hierarchical regression models were in line with that theory as they were weaker than human capital effects.

5.3.5. Testing the Model Linking Social Capital and Geographic Scope of Growth

Multinomial stepwise logistic regression analysis using SPSS was performed to assess hypotheses 2.1 and 2.2. predicting that the characteristics of bonding and bridging social capital would impact on the likelihood of SMEs choosing a local, regional, or international *scope of growth*. Hypotheses 4.2, 4.5, and 4.8 suggested that human capital and the external environment would moderate the likelihood of SMEs selecting a wide geographic scope of growth. The stepwise procedure was chosen as it allows assessment of both direct and moderation effects on a step by step basis. Forward entry methods allow for estimating the predictive power of each block of variables while controlling for the effects of other predictors. Predictors were organized in blocks: 1) social capital variables were entered first; 2) potential moderator was added to the model; and 3) if the model improved, two-way interaction terms for each of covariates and moderator were added to the model. Since testing for interactions was part of the analysis, I centered all independent predictors and prospective moderator variables as recommended by Hilbe

(2009), mostly to attenuate some possible problems with multicollinearity, but also to assist with the interpretation of results. I also verified that the assumptions of multicollinearity and linearity were met, and I limited the number of predictors to six, as recommended by Peduzzi, Concato, Kemper, Holford & Feinstein (1996). These authors suggest having a minimum of 10 events per parameter in order to obtain reliable estimates of regression coefficients when fitting a model. While that ratio is rather small, Hosmer and Lemeshow (2000) consider it acceptable for logistic regression models with continuous and discrete covariates. They also recommend that for stepwise logistic regression models, and especially for those using small samples, it is more appropriate to use the level of significance of .15 or .2. The conventional approach of using more stringent α of .05 does not allow for including “important variables” in a model, as stepwise procedure stops if the p-value of the tested variables is above certain cut-off criteria. Thus, in performing hypothesis testing with multinomial stepwise logistic regression analysis, I chose a p-value of .2 as a variable removal probability.

A series of models were tested. The first model contained three variables (*density of horizontal ties*, *density of vertical ties*, and *trust*). The model was statistically significant $\chi^2(6, N=65) = 21.328, p < .002$, but it was not worthwhile, as the Hosmer-Lemeshow Goodness of Fit test indicated a poor fit ($p < .046$). The second model contained three variables (*strength of horizontal ties*, *strength of vertical ties*, and *trust*), and was also statistically significant $\chi^2(6, N=65) = 18.116, p < .006$, but was poorly fitted ($p < .041$). For both poorly fitted models, testing was discontinued. The third model using the *strength of horizontal ties* and *strength of vertical ties* was both statistically significant with $\chi^2(4, N=65) = 15.210, p < .004$, and was well fitted (Goodness of Fit test indi-

cated $p < .163$). Thus, I proceeded to Step 2 by adding one of the potential moderators at a time to see if the model improved. While human capital (*aspiration for growth, education, and experience*) and *environmental uncertainty* did not improve their respective models, adding *environmental munificence* did improve the model's significance $\chi^2 (4, N=65) = 17.888, p < .007$ and its goodness of fit ($p < .166$). No interactions were found between any of independent variables and *environmental munificence*, but the model with added direct effect of *environmental munificence* explained between 24.1% (Cox and Shell R square) and 27.1% (Nagelkerke R squared) of the variance in the scope of growth, and correctly classified 46.2% of cases.

As shown in Table 5, only one of the independent variables, namely *strength of horizontal ties*, made a unique statistically significant contribution to the model. This predictor of scope of growth recorded 1.929 and 2.3 odds ratios for models comparing local vs. regional and local vs. international scopes of growth respectively. SMEs with the *strength of horizontal ties* above the mean level were about 2 times more likely to choose regional or international scope of growth over local growth, controlling for all other factors in the model. The other predictors in the model were not significant, as their confidence intervals contained 1.

The fourth model contained only two predictors of the density of *horizontal ties* and the *density of vertical ties*, again demonstrating statistical significance ($\chi^2 (4, N=65) = 16.639, p < .002$ and an acceptable fit ($p < .056$). This model was further tested by adding potential moderators, and running a stepwise analysis for each of them. *Aspiration for growth, education, experience* and *environmental uncertainty* did not improve the

predictive power of the initial model. *Environmental munificence* was selected at Step 2 (model χ^2 (6, N=65) = 22.712, $p < .001$), and at Step 3 moderation effects were found for the multiplicative cross-product term (*density of vertical ties x environmental munificence*). The final model was statistically significant (χ^2 (8, N=65) = 31.189, $p < .000$) and had improved the goodness of fit ($p < .349$). The model was able to distinguish between SMEs that chose to pursue different types of growth, and explained between 38.1% (Cox and Shell R square) and 42.9% (Nagelkerke R squared) of the variance in the scope of growth, and correctly classified 58.5 % of cases. The model had shown a higher percentage of correct classifications for a “local” scope of growth (78.3%), and for an “international” scope of growth (72.7%). Only 20% of “regional” cases were classified correctly, with misclassified cases counted as being both “local” and “international”.

As shown in Table 6, three independent variables made a unique statistically significant contribution to the model at both levels of comparison. These variables were *density of horizontal ties*, *density of vertical ties*, and the interaction term of *density of vertical ties x environmental munificence*. The strength of predictions varied for two pairs of outcomes. For the model which assessed the choice between local and regional scope of growth, the strongest predictor of regional growth was *density of horizontal ties*, recording an odds ratio of 3.698. This indicated that SMEs which had more horizontal ties than the sample mean were over 3 times more likely to choose a regional scope of growth vs. local growth, controlling for all other factors in the model. The odds ratio for *density of vertical ties* was .510 (less than 1), indicating that, for every vertical tie above mean level, SMEs were 0.5 times less likely to choose regional growth, controlling for

other factors in the model. The third strongest predictor was *environmental munificence*, with an odds ratio of 1.636. This indicated that with an increase in environmental munificence (above the mean level) SMEs were 1.6 times more likely to choose regional growth. And finally, the interaction term recorded an odds ratio of 0.767 (less than 1). This showed that, with every unit of increase in environmental munificence above an average level, every additional vertical tie above mean level had resulted in SMEs choosing a regional scope of growth 0.7 times less likely, controlling for other factors in the model. In other words, environmental munificence strengthened the negative direction of the relationship between the density of vertical ties and the choice of regional growth instead of local growth.

For the model, assessing the choice between the local and international scope of growth, the strongest predictor of international growth was again the *density of horizontal ties*, with an odds ratio of 4.750. As in the previous model, SMEs which had a higher than average number of ties were almost 5 times more likely to choose international growth, controlling for all other factors in the model. The odds ratio for *density of vertical ties* was less than 1, indicating that for every vertical tie above mean level, SMEs were 0.467 times less likely to choose international growth, controlling for other factors in the model. *Environmental munificence* strengthened the negative effect of the elevated number of vertical ties over mean level. With munificence being higher than average, SMEs were almost 0.8 times less likely to grow internationally. However, the direct effect of *environmental munificence* (odds ratio of 1.452) was not significant as the confidence interval for this variable contained 1, meaning that we could not rule out the possi-

bility that the true odds ratio was less than 1. As a result, the direct effect of *environmental munificence* could have varied between positive, negative or neutral.

Hypotheses 2.1 and 2.2 both state that greater bridging capital and greater bonding capital are more likely to lead to the choice of a wide geographic scope of SME growth. Hypotheses 4.2, 4.5 and 4.8 predict that human capital and the external environment would moderate the relationship between predictors and outcome. As a result of hypotheses testing, I concluded that SME bonding capital does not predict the choice of SMEs' scope of growth. Hence, hypothesis 2.2 received no support. Bridging capital, however, does play a role in defining the choice of growth strategies, so partially supporting hypothesis 2.1. Firstly, the strength of horizontal ties above the mean level has direct and positive effect on the odds of choosing between local, regional, or international growth. Secondly, the density of horizontal ties above mean level increases the likelihood of a choosing a regional or an international scope of growth, as compared to local growth, while a higher density of vertical ties increases the likelihood of SMEs staying local. Thus, vertical bridging connections have an effect that is opposite to that hypothesized. Overall, SME bridging social capital has demonstrated its ability to affect the likelihood of SMEs choosing a particular scope of growth. It is interesting to note that while the horizontal ties had a positive effect on the likelihood of SMEs expanding to more distant geographic locations, the vertical ties had the reverse effect, increasing the probability that SMEs would grow locally. To some extent, this result repeats the findings of previous sections where the relationship between bridging capital and quantitative growth outcome was tested. The negative effect of vertical ties on the selection of SME scope of

growth may be related to the differences in horizontal and vertical ties' nature. It is possible that while the former provided relatively "equal" opportunities for growth to all the parties involved in relations, the latter created "power-based" or "authority-based" local growth options that stemmed from connections with government structures. In other words, vertical ties encouraged SMEs to stay local.

Moderation hypotheses 4.2 and 4.5 were not supported. The former predicted the positive moderation effect of human capital and the latter a negative effect of environmental uncertainty on relations between social capital and the scope of SME growth. Moderation hypothesis 4.8 received partial support. As hypothesized, environmental munificence conditioned the relationship between bridging capital and the geographic scope of SME growth, increasing the probability of regional growth being chosen above local growth. At the same time, higher environmental munificence strengthened the negative effect of vertical bridging ties, decreasing the likelihood of going international vs. local development. Thus, environmental munificence strengthened the effects of bridging connections, encouraging regional and national expansion, but making international growth look too risky for SMEs. Since bonding capital had no effect on the selection of SMEs' geographic scope of growth, there was no moderation effect of environmental munificence on those relations. Hence I would claim partial support for hypothesis 4.8. Thus far, it seems that Woolcock's (1998) idea of the complementarity of bonding and bridging social capital finds no support at a firm level. In this study, all the benefits of social capital for SME growth are attributed to bridging relations.

5.3.6. Testing the Model Linking Social Capital and Complexity of Contractual Relations

Another set of multinomial stepwise logistic regression analyses was performed in SPSS in order to assess the impact of the characteristics of bonding and bridging social capital on the likelihood that SMEs would develop complex contractual relations, exemplifying another parameter of qualitative growth. Hypotheses 2.3 and 2.4 predicted that greater bridging and greater bonding social capital would be more likely lead to the utilization of complex contracts. The expected moderation effects of human capital (hypothesis 4.3) and the external environment (hypotheses 4.6 and 4.9) on the utilization of complex contracts were also tested in this set of models. The outcome variable of complexity of contracts has three categories: 1) direct contracts with domestic business partners; 2) a more complex mix of direct and intermediaries-based domestic contractual relationships, and 3) all types of domestic and international contracts, including strategic alliances.

Two models were tested. The first model contained three variables (*density of horizontal ties*, *density of vertical ties*, and *trust*), was statistically significant χ^2 (6, N=65) = 23.216, $p < .001$, and had good results in the Hosmer-Lemeshow Goodness of Fit test ($p < .367$). Thus I continued with Step 2, adding the potential moderators one by one, and checking if a model with an added moderator would improve. Adding variables of *aspiration for growth*, *education*, *experience* and *environmental munificence* caused the stepwise procedure to stop, as no additional direct effects were found. *Environmental uncertainty*, however, did improve the initial model, resulting in higher statistical significance (χ^2 (8, N=65) = 32.203, $p < .000$) and showing good fit ($p < .521$). At Step 3, I

tested for moderation effects, and found that the interaction between *trust* and *environmental uncertainty* was retained by the stepwise procedure. The full model was significant with χ^2 (10, N=65) = 38.816, $p < .000$, and had a better fit ($p < .781$). The final model explained between 45% (Cox and Shell R square) and 51.1% (Nagelkerke R squared) of the variance in *complexity of contracts*, and correctly classified 64.6% of the cases. The classification results for all three categories were good, ranging between 71.4% of correct prediction for the first category, 60.9% for the second, and 57.1% for the third category.

Table 7 presents the results of fitting the model. Only one of the independent variables (*density of horizontal ties*) made a unique statistically significant contribution to the model. This strongest predictor of *complexity of contracts* recorded an odds ratio of 2.188 for the model, comparing the first and the second outcome, and 2.930 for the model, comparing the first and the third outcomes. This indicated that the SMEs that developed at least one horizontal tie above sample mean level were over 2 times more likely to be involved in more complex business dealings at domestic and international levels, controlling for all other factors in the model. *Environmental uncertainty* made a statistically significant contribution to a model comparing the choice of domestic direct and intermediary-based contracts vs. all types of domestic and international contracts. The odds ratio of 1.308 indicated that SMEs chose to add international partnerships to their portfolio of contracts 1.3 times more likely if environmental uncertainty was one unit above mean level, controlling for other factors in the model. The other predictors (*density of vertical ties* and *trust*) and moderator variable (*trust x environmental uncertainty*) were not signif-

icant as their confidence intervals contained 1. As mentioned earlier, we could not rule out the possibility that the true odds ratios for all those variables in question were either less than 1, or higher than 1. As such, they could have affected the outcome in either a positive or a negative direction.

The second model tested also contained three predictors (*strength of horizontal ties*, *strength of vertical ties*, and *trust*) demonstrating statistical significance at Step 1 (χ^2 (6, N=65) = 20.823, $p < .002$) and good model fit ($p < .264$). This model was further tested by adding moderator variables, and running a stepwise regression procedure for each of them. No effect was found for human capital (*aspiration for growth*, *education*, *experience*) and *environmental munificence*. *Environmental uncertainty* was included in the initial model, improving its significance (χ^2 (8, N=65) = 29.282, $p < .000$), and fit ($p < .533$). At Step 3, the moderation effect was found for multiplicative term of *trust x environmental uncertainty*. The final model included direct effects and interaction, and was statistically significant (χ^2 (10, N=65) = 35.687, $p < .000$), with improved goodness of fit ($p < .692$). This full model explained between 42.2% (Cox and Shell R square) and 48% (Nagelkerke R squared) of the variance in *complexity of contracts*. The model correctly classified 56.9 % of cases, with a high percentage of correct classification for the first and the third categories (67.9% and 64.3%), and with 39.1% of correct predictions for the second category.

Table 8 shows that the only independent variable (*strength of horizontal ties*) made a unique statistically significant contribution to the model by comparing the first and the third outcomes. With an odds ratio of 2.569, *strength of horizontal ties* was the

strongest predictor of utilization of complex contracts that included domestic and foreign partnerships. This indicated that SMEs with a higher than average *strength of horizontal ties* were over 2 times more likely to develop various domestic and international contractual relations than just domestic direct contracts, controlling for all other factors in the model. Other variables in this model were not significant as their confidence intervals contained 1. This was also the case for the model comparing domestic direct and domestic direct and intermediary-based contractual relations. All the variables including the interaction term were not significant due to confidence intervals containing 1. Thus, it is impossible to come to any definitive conclusions regarding the true directions of variable effects.

Hypothesis 2.3 stated that higher bridging social capital would be more likely to lead to the utilization of complex contracts. Summing up the test results for the model assessing the choice between three categories of contracts: 1) domestic direct; 2) domestic direct and intermediary-based; and 3) various domestic and international contracts, I can conclude that both *density and strength of horizontal ties* increase the likelihood of SMEs developing complex relations with business partners. Thus I found partial support for hypothesis 2.3, predicting the effect of bridging capital on the odds of utilizing complex contracts. I found no support for hypothesis 2.4. The variable of *trust* was not significant in any of the models; thus the relationship between bonding capital and the use of complex contracts was not established. Hypothesis 4.3 predicted a positive moderation effect of human capital on the complexity of SME contractual relations. This hypothesis was not supported, as none of the human capital variables had any effect on the odds of

conducting various business partnerships. *Environmental uncertainty*, when it is higher than average, does have a direct and positive effect on the odds of being involved in both domestic and international contracts. I found partial support for moderation hypothesis 4.6 that predicted negative moderation effects of environmental uncertainty on the complexity of SME contracts. I believe that this hypothesis was partially supported at the model level as the interaction between *environmental uncertainty* and *trust* was retained during the stepwise procedure. However, it was unclear if there was a true moderation effect in models comparing pairs of outcomes. It was also impossible to come to a definitive conclusion regarding the direction of the moderating effect. Hypothesis 4.9 predicted a positive moderation effect of environmental munificence on the utilization of complex contracts. Thus, this hypothesis was not supported. Overall I can conclude that the greater the number of bridging ties, the higher the odds of SMEs having diverse and complex contractual relations. Domestic and foreign sales and purchasing contracts, agency partnerships or joint venture agreements are among the activities describing various SME partnerships. “Strength of ties” refers to the close relationships between parties. Thus, SMEs with strong horizontal ties are able to have business dealings that are riskier, and that require more time and commitment of resources. Vertical ties had no effect on the utilization of complex contracts. One explanation is that hierarchical institutional structures were less likely to be directly involved in SMEs relations with their partners. Thus, vertical ties did not encourage firms to take on risky or complex contracts. Environmental uncertainty seems to have had the direct effect of stimulating SMEs to diversify their contractual relations, and adding intermediaries as growth partners. The

moderation effect for environmental uncertainty, however, was established only statistically.

A summary of the findings pertaining to all hypotheses tested in this study follows in Table 9.

CHAPTER SIX

6. DISCUSSION

6.1. Major Findings

6.1.1. Overview

Various perspectives on social capital research have provided many insights into the mechanisms of social capital formation and deployment. Both stability and continuity were emphasized by researchers as being important conditions for the development, maintenance and application of social capital (Adler & Kwon, 2002; Leana & Van Buren, 1999; Nahapiet & Ghoshal, 1998). Up to date, management and sociological theorizing had occurred on individual, dyadic, organizational, and network levels of analysis. In a recent review of social capital research, Payne, Moore, Griffis & Autry (2011) found that most of the studies were conducted at individual or network levels, with studies of organizational social capital receiving less attention. Among the outcomes of social capital that have been studied most intensively are tangible and financial gains in terms of resources or firm performance (Li et al., 2009; Li & Atuahene-Gima, 2001; Peng & Luo, 2000; Park & Luo, 2001; Rowley et al., 2000; Yiu & Lau, 2008). Thus, social capital has been mainly studied through the lens of resource-based view of a firm. Empirical studies of organizational social capital were conducted for a variety of countries, large business conglomerates and stand alone firms.

This study contributes to the less developed stream of organizational social capital research, linking the firm-specific configuration of bonding and bridging capital of SMEs and their growth outcomes. My main interest was in extending the current

knowledge of SME growth strategies with relation to the facets of social capital measured at an organizational level. This study contributes to the extant literature by providing more details on the specific effects of various bonding and bridging connections on growth outcomes. It is important to state that this study extends the knowledge of SME growth in both a quantitative and qualitative sense, and in the specific context of emerging markets. Thus, it provides more empirical evidence for the less explored areas of firm strategic behavior in unstructured environments. Choosing emerging markets as a research setting emphasizes the role of social capital as an intangible and valuable resource that is especially visible.

Three research questions were addressed in this study. The first explored which types of SME organizational social capital (bonding or bridging) were more evident, and had a more distinct effect on growth as a measure of performance. Answering the second question aimed to clarify how the bonding and bridging facets of social capital affect SME growth strategies. Thus, both quantitative (percentage of sales increase) and qualitative (scope of growth, complexity of contracts) outcomes were considered in relation to the facets of firm social capital. And finally, the third question investigated the role played by the factors of external environment and human capital in shaping relationship between SME social capital and growth.

I employed a sample of 65 manufacturing SMEs from Siberian region of Russia. To attenuate possible common method bias I collected the data from primary (questionnaire instrument) and secondary sources (publically available official statistics, and company information); and triangulated the outcome variables of growth.

To explore the various facets of SME social capital I ran between-group comparisons for traditional and denatured firms, and for domestic and internationalized firms. I used independent samples t-tests and one- and two-way analyses of variance techniques to detect differences in bonding and bridging capital across groups of SMEs. As expected, I found significant variability in trust between traditional and denatured SMEs, and in horizontal bridging ties of SMEs representing different groups (traditional vs. denatured; domestic vs. internationalizing). Thus, this study sheds more light on the importance of studying social capital in relation with organizational features and organizational strategies of SMEs. It would be interesting to further determine the causality of the relationship between the process of creation and the deployment of firm social capital and SME denaturing. A cross-sectional character of this study, and the study design did not intend for testing causal relationships among variables. Thus, a separate study is needed to focus on exchanges between an SME and its external environment. It is important to understand if environmental factors lead to SME denaturing, or SME strategic behavior triggers the process of SME denaturing. In addition, the role of bridging ties in encouraging SME internationalization needs to be studied in more detail.

To further explain how bonding and bridging social capital affects SME growth, I tested direct and moderating effects in a series of hierarchical regression models, including multiple and logistic regressions. Consistently with recent conceptual and empirical studies, I argued that bonding and bridging relations represent a valuable intangible resource that is positively associated with SME growth outcomes in uncertain, hostile, and underdeveloped institutional environments of emerging economies. Thus, the study ex-

tended the knowledge about the role of firm-internal and firm-external ties in the context of smaller firms, and more turbulent environmental conditions. Specifically, I argued that bridging capital would be associated with more growth outside of home region, and that greater bonding capital would be associated with higher total growth. From the qualitative point of view, greater bonding and bridging facets of social capital lead to selection of wide geographic scope of growth. In addition they can facilitate the utilization of diverse and sophisticated contractual relations with SME partners. This particular aspect of SME growth is exemplified by making a connection between the facets of social capital and the complexity of SMEs' contractual relations, which has not been tested in the literature. Yet the level of contractual diversity allows for an estimation of the overall approach to SMEs' business partnerships, and the state of those partnerships. In this regard, the study makes another important contribution by exploring various meanings of growth, especially as qualitative change manifested in firm behavior.

Finally, this study has contributed to the research by providing some insight into the role of contextual factors in firm strategic actions and outcomes. I followed current theorizing, maintaining that a firm's internal environment, and namely, its human capital would positively condition relationships between social capital and growth. I also contended that the external environment would indirectly contribute to the relationship between the predictors and outcomes of the study.

Summing up the contributions of this study, they are mainly related to 1) detailing the effects of SME bonding, as well as horizontal and vertical bridging social capital in specific setting of Russian transition economy; 2) linking bonding and bridging facets

of SME social capital to quantitative and qualitative growth outcomes; and 3) providing more details on the moderating role of industry environment for qualitative SME growth. The secondary contributions of this study include testing the differences in bonding and bridging social capital across various organizational contexts, and between groups of SMEs pursuing different developmental strategies.

Overall, I found full or partial support for 9 out of 18 hypotheses. I found full support for the hypothesized differences in the bonding and bridging ties of different types of firms. All the hypotheses attesting to the role of bridging connections in SME development were partially supported in relation to horizontal bridging ties. However, the hypotheses suggesting a positive association between bonding social capital and the likelihood of wider scope of growth, or the utilization of complex contracts, found no support. The relationship between bonding capital and total SME growth was marginally supported. Another set of hypotheses that was not supported emphasized the moderating effect of human capital on SME growth. At the same time I found partial support for moderation hypotheses attesting to the role of environmental uncertainty and environmental munificence. The following sections discuss the findings for each set of hypotheses, providing more details and clarity on predicted and supported relations.

6.1.2. Bonding and Bridging Ties in Distinct Organizational Contexts

In terms of theorizing on the structure of SME social capital, I aggregated prior concepts that described the nature of small and large firms, and their behavioral patterns (Gibb, 2000; Hitt et al., 2002; Messeghem, 2003; Torrès & Julien, 2005; Wright et al.,

2005). Furthermore, I extended this line of thinking towards emerging markets context (Peng and Heath, 1996; Peng et al., 2009). I proposed that the SMEs affected by the process of denaturing would exhibit similarities with larger firms in terms of developing a broader network of connections with their business environment. As such they would be relying on arm's-length relations rather than on close and informal ties. By building and maintaining their bridging connections, denatured SMEs would have less need to foster their bonding ties. Thus, they would exhibit less trust in comparison to traditional tightly knit small businesses. Consistent with my predictions, the results indicated that denatured SMEs indeed had more bridging horizontal ties with their business partners, and less internal bonding measured by trust. The difference in mean scores for measures of bonding and bridging relations was rather small, as was the effect size (3 to 4%). Nevertheless, these results were in line with Penrose's (1959) notion of qualitative growth being manifested through changes in the characteristics of a firm. Less bonding capital (less ascribed trust) may be an indication of SMEs shifting focus to developing explicit relations, including bridging linkages. I can speculate that changes in bonding and bridging social capital are probably interrelated. However, the causality of this relationship is yet to be established, as well as for more general process of SME denaturing. A t-test does not give an answer to the question of whether denaturing is a condition that causes changes in SME social capital, and stimulates qualitative and quantitative SME growth; or if the opposite is true. Clarifying the mechanism that links SME denaturing, changes in social capital, and strategies of SME growth is beyond the scope of this study.

However, this study's results do correspond to prior findings on the importance of arm's-length relations for enhancing SMEs' survival, and for increasing the pool of available resources (Alvarez and Barney, 2001; McEvily & Zaheer, 1999). SMEs with a greater number of ties were able to compete on the level with other firms as denaturing made their management processes similar to those of large firms, and they were able to pursue riskier strategies of growth through internationalization. I would conclude that the small difference in mean scores between traditional and denatured SMEs could be explained by the fact that, while business group affiliation indicated SME denaturing, those business groups were much smaller than the gigantic organizations usually discussed in business group literature. In Russia, small, regional business groups are often called "groups of companies". They rarely include any financial institutions; their level of diversification is low, and the scope of their activities is usually regional. So it is unreasonable to expect that members of such groups will be similar to those of large entities such as Gazprom, or RusAl. However, affiliation even with small business groups is an indication of denaturing. It does change SMEs' approach to doing business, and puts them in a different position in terms of the opportunities available for growth relative to traditional small firms.

One more hypothesis links the increased density of horizontal ties to firm internationalization. The extant literature suggests that inter-firm networks help firms expand beyond their national borders (Tung & Chung, 2010; Peng & Luo, 2000; Tan & Litschert, 1994; Wu et al., 2007; Zhao & Hsu, 2007). While the importance of business contacts for Asian emerging market firms has been established in previous research, this notion has

yet to be tested in the context of other countries. In line with earlier studies, I found that SMEs from the “international” group had more bridging connections than SMEs from the “domestic” group and that this difference was especially noticeable for international SMEs that had been denatured. This may indicate that the denatured SMEs are organized and managed in an explicit and effective manner that increases their openness to the external environment. By establishing more horizontal ties, and by getting more access to various opportunities, SMEs can cope better with environmental uncertainties. Thus they are ready for bold growth options, including internationalization.

I ran an additional post-hoc analysis to compare mean differences in the density of horizontal ties between SMEs with a local, regional, and international scope of growth. As a result, I found significant differences between local and regional SMEs, and between local and international SMEs. SMEs who attempted internationalization had an average of one more horizontal connection than local firms. Effect size was at the upper limit of the “moderate” range. The difference in scope of SME growth between groups accounted for 13.4% of variation in density of horizontal ties. This is an important finding, considering that most of effect sizes in social science research are statistically small (Cohen, 1988 Stevens, 1996). Furthermore, it supports the idea of business networking being a vehicle for SME internationalization by testing it in different institutional, economic, and cultural contexts.

Taken together, the findings regarding the higher density of horizontal ties in denatured and international SME contribute to our understanding of relations between bridging connections, organizational structure and strategies of development through ex-

ploration of market opportunities. Another contribution is made in the cautious support of Van Staveren & Knorringa's (2007) statement that bonding and bridging capital at an individual level of analysis "are partly trade-offs". Between-group comparisons of bonding and bridging capital of denatured and traditional SMEs allow for projecting this idea at a firm level. The mean score for trust demonstrated that the traditional SMEs had more bonding capital than the denatured SMEs. At the same time, the mean score for the density of horizontal ties indicated that denatured SMEs had more bridging social capital. Thus it seems that SMEs from the two groups placed more emphasis on fostering different types of social capital. I take this result as an indication that there may be some trade-off between developing either bonding or bridging facets of social capital. However more studies are needed to clarify if SMEs shift focus to developing bridging connections to complement bonding ties (Woolcock, 1998), or if they attempt to transfer some bonding ties into bridging ones, and therefore the trade-off process takes place.

6.1.3. Bonding and Bridging Connections in Relation to Objective Measure of SME Growth

Based on the prior research stating the link between weak ties, inter-firm networking, and firm performance (McMillan & Woodruff, 2002; Koka & Prescott, 2002; Batjargal, 2003) I expected that a positive direct relationship would be demonstrated between measures of bridging social capital and SME growth outside the home region. Hierarchical regression analysis was used to model the direct and moderating effects of density of horizontal and vertical ties, and the strength of horizontal and vertical ties on SME

growth. After controlling for firm age, firm size and the type of industry, the density of horizontal ties and the strength of horizontal ties proved to be significant predictors of growth. Each of them explained an additional 3 to 4 % of variance in the outcome variable.

At the same time, the hypothesized association between density and strength of vertical ties and SME growth was not supported. Thus, the relationship between bridging capital and firm growth was supported only for the density and strength of horizontal connections. On one hand, the results are consistent with the previous research, and the premise of seeing bridging ties to the external environment as a source of developmental opportunities. On the other hand, the lack of support for the “anchoring” role of vertical ties in uncertain environments to some extent contradicts prior research (Acquaah, 2007; Peng & Heath, 1996; Park & Luo, 2000; Peng & Luo, 2000). The “unimportance” of vertical connections for growth may be related to the level of support provided by the Russian regulative environment to various groups of firms. Russia is known for its unwelcoming business environment and for its lack of institutional support for domestic SMEs. Perhaps the lack of association between density and strength of vertical bridging ties and firm growth can be attributed to country-specific conditions when SMEs are left alone, and have to rely on support of their peers for survival and growth. SMEs may see hierarchical relations and vertical ties to various levels of government as an extractive instrument; with bribes required to secure its market position or gain some legitimacy. These “connections”, sometimes referred to as “blat”, carry little reciprocity among parties; thus vertical ties in Russia cannot be said to facilitate development. This in sharp

contrast to China, where institutional ties between firms and government (“guanxi”) are perceived as positive and mutually beneficial.

The hypothesized relationship between bonding social capital and total growth as a measure of SME performance found partial support as the variable of trust was marginally significant. It seems that, in this study, bonding relations measured at a firm level have quite a weak effect on SME growth; which is not what the literature had previously suggested (Collins & Clark, 2003; Cooke et al., 2005; Leana & Pil, 2006; Maurer et al., 2011). It is essential to note that prior studies measured bonding capital at either the lower (group) or higher (network) levels of analysis. It is possible that a business firm as a unit of analysis does not capture the nature of bonding ties in full. Organizations are mainly formal, contract-based entities; and bonding relations are ascribed, affection-based in-group attributes. Hence, interpersonal connections within organizations may reflect not only inherited, but also earned attributes including trust, information sharing, and mutual understanding. Thus, the meaning of “bonding” changes at an organizational level of analysis and this may be reflected in the results of this study.

The findings related to the direct effects of horizontal bridging connections on growth outside the home region emphasize the importance of weak ties for firm performance outcomes across various institutional settings and across a wide population of firms. In turn, the marginal effects of trust on SME growth prompt for clarification of the role of bonding social capital at a firm level of analysis.

6.1. 4. Facets of SME Social Capital and the Scope of SME Growth

The next set of hypotheses tested whether bonding and bridging social capital is a good predictor of direction of SME development, especially its geographic scope of growth. Bonding capital was not a predictor of the likelihood of choosing a local, regional, or international scope of growth. There is conflicting evidence in the literature regarding the outcomes of well-developed bonding capital. For instance, organizational trust facilitates an exchange of fine-grained knowledge and information (Pearson et al., 2008; Uzzi, 1996), and encourages entrepreneurship in an underdeveloped institutional environment (Peng, 2004). On the other hand, it can restrict the choice of developmental options (Grabher & Stark, 1997; Kaminska, 2010; McMillan & Woodruff, 1999; van Staveren & Knorringa, 2007). It is possible that bonding relations increase firm collective strength and survival, but do not encourage out-group expansion, and thus, have no relation to growth.

The results for bridging capital indicated that both horizontal and vertical ties were important predictors of the scope of growth. I used “local” scope of growth as a baseline for comparing pairs of outcomes. I believe it provided a good contrast to “regional” growth that actually combined regional and nationwide developmental efforts, and to “international” growth. As expected, the strength of horizontal ties had direct and positive effect on the odds of choosing local, regional, or international growth trajectory, controlling for all other factors in the model. The density of horizontal ties was an even stronger predictor of the likelihood of choosing the scope of growth, controlling for all other factors in the model. The density and strength of horizontal ties above the mean

sample score significantly increased the probability of the SME entering remote markets (2 to 3 times more likely). This finding is in line with the notion that bridging relations enhance opportunities available to a firm (Cardoza and Fornes, 2011; Peng, 2004). The strength of vertical ties was not a significant predictor of the model outcome, but the density of vertical ties increased the likelihood of “local” growth. Thus, vertical ties demonstrated a negative effect, as opposed to a hypothesized positive effect. SMEs with a higher than average density of vertical ties were more likely to stay within local markets than to explore external opportunities. It is yet to be clarified whether vertical connections provided for more local opportunities, but they most likely helped sustain a firm position in their local market and thus encouraged refraining from higher-risk growth activities.

Overall, the results support the previously established positive association between horizontal bridging ties and growth, this time taking it to a qualitative level of assessment. Thus, this study adds more support to the research on the importance of business networking for firm development. It also brings into focus an important distinction between the role of horizontal and vertical ties. Horizontal ties have demonstrated their ability to serve as boundary-spanning tool, encouraging SMEs to move beyond their comfort zone of well-known local markets by relying on both greater number and strength of connections. The number of vertical ties above the mean level indicates that SMEs are less inclined to explore new growth opportunities if they have established multiple contacts with normative and regulative institutions and thus were set in their developmental path. I would argue that vertical ties reduce the risks of doing business in local regions, and thus make the SME market position more secure. Hence I see SME horizon-

tal ties as being the vehicle of market exploration, and vertical ties as an instrument of market exploitation, and a way of coping with uncertainties.

6.1.5. Bonding and Bridging Relations as Predictors of the Complexity of SME Partnerships

The relationship between facets of social capital and complexity of SME contracts has not been tested in prior studies. I believe this is due to researchers' focus on tangible outcomes, either in firm performance or in firm behavior. In my view, a firm's ability to develop business dealings and sustain various contractual relations with other parties reflects its level of maturity in business networking. Also, it gives an indication of the firm's potential of employing variety of tools for being entrepreneurial, and for succeeding in geographically, culturally, or institutionally distant environments.

Model testing stresses the significance of density and strength of horizontal ties as factors increasing the likelihood of SMEs utilizing complex contracts. SMEs with a higher than average number of total horizontal ties, or with stronger ties, were more likely to add strategic alliances with domestic or international partners to direct sales or purchasing. Thus, they demonstrated higher levels of trust, and long-term commitment to their network partners. Vertical ties were not significant predictors of the outcomes tested. Thus, hypothesized relations received only partial support. These results added more evidence to the pool of papers describing the benefits that can be derived from inter-firm networking. Indeed, the collaborative agreements of a firm not only serve as a source of new resources and opportunities, but also provide a way to reduce environmental uncer-

tainty. Wider business networks cite SME's "strategic flexibility" as an important condition of survival and success in emerging economies (Wright et al., 2005). This last consideration makes a point of stressing the role of the business environment versus the regulative environment in stimulating firm development.

This study also indicates that the strength of horizontal ties is as important as their density in predicting qualitative growth outcomes. There is some anecdotal evidence from my sample that "close" relations are important for SMEs, even though the reciprocity of ties does not mean that they are based on friendship, family, or other common traits. Close connections between Russian SMEs are based rather on the earned trust, repeated transactions, and the passing of time. I believe that the density of ties opens growth opportunities, but it is the strength of ties that fosters continuity of development.

6.1.6. Moderating Effects of Human Capital and the External Environment

The first set of moderation hypotheses predicted the interaction between firm social capital and firm human capital. Human capital is recognized in the extant literature for its benefits for firm growth (Wiklund & Shepherd, 2003a; Baum & Locke, 2004). The unique features of human capital allow for better recognition of opportunities (Kirzner 1997; Shane, 2000), and serve as a source of competitive advantage (Alvarez & Busenitz, 2001; Brush & Chaganti, 1998). Some scholars argue that human capital is even more beneficial in hostile environments (Covin and Slevin, 1997; Puffer et al., 2001). Taken together, the prior studies suggest that human capital might positively contribute to various firm outcomes. Thus I have proposed that human capital can positively

moderate the relationship between components of social capital and SME growth. I used the variables of aspiration for growth, education and experience as measures of human capital as those were the previously tested measures of human capital linked to firm outcomes.

Contrary to expectations, I found no moderation effects in any of the models in the study. For the set of hypotheses testing association between bridging connections and quantitative SME growth, I found a very small direct effect of aspiration for growth on the outcome variable. In fact, aspiration for growth explained an additional 1.1% of variance, $\beta = .148$, $p = .178$, but the interaction term did not add to the explained variance. I attribute this finding to the fact that SMEs in general are firms that exhibit quite limited growth. As such, aspiration for growth may not be the best measure for SME human capital, despite the popularity of this measure in the literature. It is also possible that, as an assessment made at individual level, aspiration for growth does not translate into actual behavior at a firm level. Two other variables of human capital namely experience and education, appeared to be unrelated to SME growth in any way. I would speculate that in my sample I did not have enough variability in these variables because of the country specific, and sample specific qualities of human capital. Having had post-secondary education is a social norm in Russia; so the number of years of education is generally the same across informants. As to experience, the three items assessed (prior start-up experience, prior management experience, and prior management experience in high-growth firms) may not correspond with the realities of Russian manufacturing SMEs. More than half of informants had “no experience” in the abovementioned categories; about 20% of

respondents had only one positive answer; and 15% of informants answered “yes” to all three questions measuring experience. Thus, I believe that the measure of experience was not appropriate for the sample of SMEs used in this study. Overall, the lack of support for the proposed effects of human capital suggests the need for more research into the role of human capital in this particular class of firms, and environmental conditions.

The second set of moderation hypotheses focused on interaction between bonding and bridging capital and external environment. I built my moderation hypotheses on conceptual pieces that brought forward the contextual importance of external environment for firm behavior (Carney & Gedajlovic, 2002; De Clercq et al., 2009; Khanna & Rivkin, 2001; Park & Luo, 2001). Various environmental conditions, however, may stimulate or inhibit firm growth simultaneously (Dess and Beard, 1984). Environmental effects interplay with firm-specific factors, and with the human components of firm behavior (Davidsson et al., 2007). Thus, it is logical to expect that the environment will have an indirect effect on SME growth outcomes; and that the effects of various dimensions of the external environment may be positive or negative. I tested two potential environmental moderators: a subjective measure of environmental uncertainty, and an objective measure of environmental munificence. I received mixed results.

Regressing the interaction term of horizontal bridging ties and environmental uncertainty did not explain any additional variance in out of home region growth. Very similar results were received for the interaction terms of horizontal bridging ties and environmental munificence. Thus, contrary to expectations, no moderation, and no direct effects were found for either of the tested variables. One possible explanation may be re-

lated to the choice of industry control variable. A dichotomous dummy variable places manufacturing industries in groups in terms of their R&D intensity. As such, an industry control variable may have reflected some of the direct effects of the industry environment on firm growth, but the other environmental variables did not capture any additional variance.

I am being cautious here about the findings of logistic regression model linking SME social capital to the utilization of complex contracts. At the model level, the interaction between environmental uncertainty and trust was retained during the stepwise analysis. Thus, I consider that I received support for the moderation effect. However, I cannot be certain if I indeed found a true effect as the confidence interval for the interaction term contained 1 for both pairs of outcomes. In other words, the moderation effect was not significant, and so was the direct effect of the variable of trust.

Further analysis brought more encouraging results. Logistic regression models demonstrated that environmental munificence had direct and moderating effects on the likelihood of choosing a particular scope of growth. Controlling for other factors in the model, environmental munificence above the mean sample score accounted for a 1.5 times increase in the likelihood of regional growth versus local growth. At the same time, environmental munificence strengthened the negative effect of density of vertical ties as a factor, decreasing the likelihood of firm growing outside its local region. The moderating effect was significant for both pairs of outcomes, supporting the hypothesized influence of environmental munificence on relations between bridging social capital and SME growth.

A higher level of munificence increased the probability of regional growth versus local growth, but in interaction with vertical ties it decreased the likelihood of growth outside the home region. This result confirms the multi-directionality of environmental effects widely acknowledged in the literature. And at the same time, it goes against the previous findings regarding the effects of guanxi with government authorities (Park & Luo, 2001). According to these authors, Chinese firms achieved more market expansion when resorting to vertical guanxi in unfavorable institutional conditions. The opposite was found to be true for Russian SMEs. They were more likely to limit their market expansion when using vertical ties in a highly munificent environment. One of the reasons why my results were different could be the nature and intensity of “vertical networking” in China and Russia. It is possible that Russian SMEs try to limit their contacts with authorities, and use vertical connections to reduce potential losses, but not to increase business advantages.

Environmental munificence reflects conditions in an industry environment. It may include specific regulative pressures, market conditions, or macroeconomic factors which are applicable across different industries. Rowley et al. (2000) suggest that industry environments influence types of firm behavior (in terms of exploration or exploitation of opportunities). I would consider that the combination of positive and negative effects found in the study provide more evidence in support of that point of view.

Overall, the moderation hypotheses delivered mixed results. I found no support for the moderating effects of human capital, but I found convincing evidence that the external environment moderated qualitative growth outcomes. This study also demonstrat-

ed that increased environmental munificence can be stimulating for growth. This finding is consistent with the prior results in the hostile Chinese institutional environment that encouraged SMEs to grow through internationalization (Boisot & Meyer, 2008; Cardoza & Fornes, 2011). Thus, I believe that this study has made a contribution to the discussion of the role of contextual factors in shaping SME growth. In addition, the study has provided more support for the stimulating role of unfavorable environmental conditions regarding bolder strategies of growth in emerging markets.

6.2. Strengths and Limitations

As with any piece of research, there are strengths as well as limitations to this study. The small sample size has limited the choice of analytical options available, and raised the question of the generalizability of research findings. I recognize that the sample size is probably the major limitation of this study. Another issue relates to the fact that I had only a single informant per firm, so the answers to survey questions may be biased towards that person's view. I must say, however, that it is a common practice to only collect SME data from one source. I had the questionnaires filled in by either the CEO, or by another senior manager of a firm, so I believe the data collected was reliable. Not all my data was self-reported. The dependent variables were objective measures of growth. I also used multiple sources for survey data verification. As a result, I believe I took the right steps to reduce the influence of potential common method bias.

Another potential limitation was the availability of appropriate measures of social capital at firm level. Payne et al. (2011) note that "the advancement of the social capital con-

cept has been inhibited by multifaceted abstract definitions, differing theoretical perspectives, and inconsistent operationalizations” (Payne et al., 2011: 492). I believe I encountered this problem while looking for measures of bonding and bridging capital. A large proportion of the social capital research was conducted on an individual, group, or network level of analysis. Many of the organizations studied in the prior research were not-for-profit entities. As a result, the measures used in the prior research were not fully transferable to a firm level. For instance, measures of bridging relations were mostly developed for individuals and organizations exhibiting well-structured, routine behavior. It appeared impossible to measure “frequency”, or “time spent “ for contacts at a firm level as even small firms have several employees, and specific “relational” responsibilities are spread between them. And lastly, the study was cross-sectional, with no longitudinal considerations given to the relationship between social capital and growth. Thus, based on the issues listed above, the results should be taken with some caution, especially when generalized to a larger population of firms, or to other countries.

A definitive strength of this study is also related to the sample. It is worth emphasizing that empirical studies of Russian SMEs have rarely been carried out. I am not aware of any study that uses a sample of firms outside Western Russia, and specifically outside the Moscow or St. Petersburg regions. I have surveyed SMEs in the center of Siberia, a region far away from the administrative and financial center of Russia, and distant from national borders (except of Kazakhstan). I believe I had a unique collection of firms that were more representative of Russian SMEs than their counterparts from the two capitals. Thus, I may expect greater generalizability of my results, as they are more

representative of the nature and behavior of Russian SMEs which are not from central regions. Firms from the Moscow and St. Petersburg areas have multiple business opportunities, easier access to finance and to government structures. Peripheral firms struggle to gain access to markets and resources. They face more challenges in their daily activities and in long-term projects. My data collection method adds to the strengths of the study, as only about one third of social capital research employs both survey and archival data (Payne et al., 2011). It is especially difficult to gain access to firms operating in emerging markets. For instance, in Russia the level of business transparency and the overall level of trust are low, and one needs to make substantial efforts to recruit participants for a scientific research, and to deal with bureaucratic procedures for statistical data collection. As such, my sample provides more value, and adds more strength to the study.

6.3. Theoretical Implications and Future Research

The number of social capital studies is growing, but despite that fact, the current literature does not answer the question of whether the benefits of bonding and bridging social capital pertain to all levels of analysis, and to a wide variety of settings. The theoretical argument and empirical evidence are mainly presented at individual, group, or network levels. The research addressing social capital of firms, and in particular, SMEs is rather fragmented. Overall, the creation and appropriation of firms' social capital represents one of the under-investigated areas of strategy research. It has a good potential for providing more valuable insights to our understanding of firm functioning in the context

of emerging economies. These are studies dealing with the role of social capital in emerging markets, but their focus is mainly on the Asian context. Hence, the most important contribution of this study is to shed more light on the value of bonding and bridging social capital for small and medium enterprises operating in the transition economy of Russia.

This study adds to the literature by specifying the effects of horizontal and vertical ties on SME growth outcomes. It extends the existing knowledge of both quantitative and qualitative growth. An important implication of the study is the growth-restricting role of vertical relational connections. It is worth further investigation if the effect found in this study is generalizable across other industries, and other national settings.

Another important implication of the study relates to the effects of external environment. The results indicate that the industry environment moderates the relationship between bridging social capital and strategies of SME growth. This finding provides support for earlier theories and empirical tests conducted in the Chinese market. More studies are needed to identify other important environmental contributors to, or inhibitors of SME growth. It is also essential to test this finding in broader institutional contexts.

Yet another important theoretical issue raised in this study is the level of development of bonding and bridging capital of SMEs. I found that organizational features and strategies of development are related to the process of creation of firm social capital. The variability in the structure of social capital for different groups of SMEs found in this study calls for more research in this direction. In particular, it is worth exploring which organizational and inter-organizational factors define a firm's emphasis on developing more organizational bonding,

or on expanding organizational boundaries through bridging relations. In addition, another interesting issue for future research could be making a comparison between the levels of the bonding and bridging capital of a firm. Van Staveren & Knorringa (2007) suggest a trade-off in developing these types of social capital, while Woolcock (1998) argues for the complementary role of bonding and bridging connections. It may be worth testing if SMEs as a group tend to lean towards developing more bonding ties, or external bridging connections; and have more insight into the dynamic relations between the two types of social capital. It is also interesting to see if contextual factors will channel the process of firm social capital development. Taken together, these potential research questions call for more longitudinal studies of social capital antecedents, and social capital change.

Lastly, measuring the social capital of business organizations was a challenge in this study. I believe that there is a need for developing and validating measures that are well tailored for firms as special type of organizations.

6.4. Implications for Practice

In addition to the theoretical contributions, this study provides important practical guidelines on the benefits of structural components of social capital. Namely, owners and managers of SMEs may benefit from a better understanding of the role played by bridging connections in fostering specific strategies of growth. I suggest that firms pay more attention to the creation and maintenance of horizontal bridging ties. Specifically, this research suggests that broad and strong business networks provide a great vehicle for market expansion, and allow for extracting more benefits in terms of resources, opportu-

nities, risk-reduction and mutual support. At the same time, connections with governing structures reduce the negative effects of environmental changes, and improve stability of a firm position in local market. Furthermore, my findings support the great role played by variety of relational connection in setting and achieving the developmental goals for emerging markets SMEs.

CONCLUSION

Despite some limitations, the present study has answered the question of whether bonding and bridging relational connections have specific effects on the strategies of growth pursued by SMEs in emerging markets. The results suggest that both the density and the strength of bridging relational connections predict the geographic scope of SME growth, and the utilization of complex contracts. However, the density of vertical ties is also an important factor which contributes to SMEs' decisions to limit the scope of their market expansion. This study has also supported and extended prior findings regarding the moderating role of the external environment in SME development. In addition to clarifying the association between social capital and growth, the results suggest that different classes of SMEs exhibit various levels of bonding and bridging social capital. Taken together, these findings contribute to an improved understanding of social capital and its outcomes for a firm across different institutional settings. Aside from these theoretical contributions, this research provides practical guidelines to building and maintaining SME social capital to assist firm growth, and follow several developmental options.

TABLES

TABLE 1

Descriptive Statistics and Zero-Order Correlations for Variables in the Study

List of Variables	Mean	Std. Deviation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1.RSQR_ Information Sharing	2.543	.791	1	(.762)																
2. RSQR_Trust	2.082	.633	.757**	1	(.801)															
3. Density of Horizontal ties	4.310	1.310	-.202	-.142	1															
4. Density of Vertical ties	2.980	1.858	.140	.209 [‡]	.336**	1														
5. Strength of Horizontal ties	2.520	1.480	-.131	-.109	.633**	.128	1													
6. Strength of Vertical ties	.803	.306	-.078	-.122	-.323**	-.490**	-.296*	1												
7 Total Growth	.010	.139	-.064	-.167	.213 [‡]	.099	.251*	.019	1											
8. LG_Out of Home Growth	1.017	.299	-.040	.013	.301*	.063	.302*	-.030	.528**	1										
9. Scope of Growth	1.980	.838	-.057	.052	.360**	-.131	.384**	.018	-.051	.519**	1									
10. Complexity of Contracts	1.785	.781	-.007	.071	.433**	.019	.424**	-.115	.080	.508**	.831**	1								
11. Education	15.680	1.804	-.047	-.058	.056	-.123	-.100	.138	.054	.066	.121	.050	1							
12. Experience	.662	.853	-.339**	-.404**	.332**	.066	.229 [‡]	.015	.193	.088	-.007	.006	.212 [‡]	1	(.790)					
13. Aspiration for Growth	12.320	5.099	-.077	-.160	.216 [‡]	-.126	.404**	-.025	.321**	.221 [‡]	.220 [‡]	.065	-.050	.083	1	(.725)				
14. Environmental Uncertainty	25.531	6.430	-.187	-.194	.320**	.124	.299*	-.262*	.093	.109	.233 [‡]	.349**	.033	.038	.114	1	(.820)			
154 Environmental Munificence	8.6865	2.390	.135	.023	.104	.023	.140	.124	-.018	.135	.208 [‡]	.109	-.270*	-.232 [‡]	.204	.001	1			
16. LN_Size	3.78	1.649	.056	.125	.163	.233 [‡]	.082	-.088	.053	.302*	.295*	.236 [‡]	.119	.035	.019	.216 [‡]	.059	1		
17. LG_Age	.8999	.409	.202	.156	.061	-.077	.001	-.073	-.239 [‡]	.028	.268*	.280*	.171	-.268*	.005	.299*	-.122	.381**	1	

N = 65; Figures in parentheses are reliabilities of scales.

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). [‡] Correlation is significant at the 0.1 level (2-tailed).

TABLE 2

**Hierarchical Regression Analysis of Relationships between *Density of Bridging Social Capital*
and *Out of Home Region Growth***

Model	Outcome variable	Step	Variable in the model	β	Adj. R ²	ΔR^2	Sig. F change
1a	LG (Out of region growth)	1	Control		.233		.000
		2	Add <i>Density of vertical ties</i>	-.013	.220	-.013	.913
2a		1	Control		.233		.000
		2	Add <i>Density of horizontal ties</i>	.225*	.272*	.039*	.042*
		3	Add <i>Aspiration for growth</i>	.148	.283	.011	.178
		4	Add <i>Density of horizontal ties x Aspiration for growth</i>	.107	.282	-.001	.330
3a		1	Control		.233		.000
		2	Add <i>Density of horizontal ties</i>	.225*	.272*	.039*	.042*
		3	Add <i>Education</i>	.041	.262	-.010	.712
4a		1	Control		.233		.000
		2	Add <i>Density of horizontal ties</i>	.225*	.272*	.039*	.042*
		3	Add <i>Experience</i>	.073	.264	-.008	.567
5a		1	Control		.233		.000
		2	Add <i>Density of horizontal ties</i>	.225*	.272*	.039*	.042*
		3	Add <i>Environmental uncertainty</i>	.019	.260	-.012	.871
		4	Add <i>Density of horizontal ties x Environmental uncertainty</i>	.027	.248	-.012	.813
6a		1	Control		.233		.000
		2	Add <i>Density of horizontal ties</i>	.225*	.272*	.039*	.042*
		3	Add <i>Environmental munificence</i>	.003	.260	-.012	.975
		4	Add <i>Density of horizontal ties x Environmental munificence</i>	.046	.249	-.011	.692

N = 65; Control variables: age (LG), size (LN), industry dummy; * p < .05; ** p < .01; † p < .10.

TABLE 3
Hierarchical Regression Analysis of Relationships between *Strength of Bridging Social Capital*
and *Out of Home Region Growth*

Model	Outcome variable	Step	Variable in the model	β	Adj. R ²	ΔR^2	Sig. F change
1b	LG (Out of region growth)	1	Control		.233		.000
		2	Add <i>Strength of vertical ties</i>	.001	.220	-.013	.996
2b		1	Control		.233		.000
		2	Add <i>Strength of horizontal ties</i>	.210 [‡]	.266 [‡]	.033 [‡]	.059 [‡]
		3	Add <i>Aspiration for growth</i>	.126	.267	.001	.286
		4	Add <i>Strength of horizontal ties x Aspiration for growth</i>	.019	.255	-.012	.863
3b		1	Control		.233		.000
		2	Add <i>Strength of horizontal ties</i>	.210 [‡]	.266 [‡]	.033 [‡]	.059 [‡]
		3	Add <i>Education</i>	.072	.259	-.007	.513
4b		1	Control		.233		.000
		2	Add <i>Strength of horizontal ties</i>	.210 [‡]	.266 [‡]	.033 [‡]	.059 [‡]
		3	Add <i>Experience</i>	.106	.263	-.003	.381
5b		1	Control		.233		.000
		2	Add <i>Strength of horizontal ties</i>	.210 [‡]	.266 [‡]	.033 [‡]	.059 [‡]
		3	Add <i>Environmental uncertainty</i>	.023	.254	-.012	.849
		4	Add <i>Strength of horizontal ties x Environmental uncertainty</i>	.071	.246	-.008	.543
6b		1	Control		.233		.000
		2	Add <i>Strength of horizontal ties</i>	.210 [‡]	.266 [‡]	.033 [‡]	.059 [‡]
		3	Add <i>Environmental munificence</i>	.001	.253	-.013	.996
		4	Add <i>Strength of horizontal ties x Environmental munificence</i>	.094	.249	-.004	.402

N = 65; Control variables: age (LG), size (LN), industry dummy; * p < .05; ** p < .01; ‡ p < .10.

TABLE 4

Hierarchical Regression Analysis of Relationships between *Bonding Social Capital* and *SME Growth*

Model	Outcome variable	Step	Variable in the model	β	Adj. R ²	ΔR^2	Sig. F change
1c	Total growth	1	Control		.042		.135
		2	Add <i>Trust</i>	.174 [‡]	.057 [‡]	.015 [‡]	.164 [‡]
		3	Add <i>Aspiration for growth</i>	.289*	.128*	.071*	.018*
		4	Add <i>Trust x Aspiration for growth</i>	.060	.116	-.012	.632
2c	Total growth	1	Control		.042		.135
		2	Add <i>Trust</i>	.174 [‡]	.057 [‡]	.015 [‡]	.164 [‡]
		3	Add <i>Education</i>	.083	.048	-.009	.506
3c	Total growth	1	Control		.042		.135
		2	Add <i>Trust</i>	.174 [‡]	.057 [‡]	.015 [‡]	.164 [‡]
		3	Add <i>Experience</i>	.150	.059	.002	.293
		4	Add <i>Trust x Experience</i>	-.019	.043	-.016	.893
4c	Total growth	1	Control		.042		.135
		2	Add <i>Trust</i>	.174 [‡]	.057 [‡]	.015 [‡]	.164 [‡]
		3	Add <i>Environmental uncertainty</i>	.149	.061	.004	.261
		4	Add <i>Trust x Environmental uncertainty</i>	-.024	.046	-.015	.850
5c	Total growth	1	Control		.042		.135
		2	Add <i>Trust</i>	.174 [‡]	.057 [‡]	.015 [‡]	.164 [‡]
		3	Add <i>Environmental munificence</i>	-.083	.048	-.009	.516

N = 65; Control variables: age (LG), size (LN), industry dummy; * p < .05; ‡ p < .20.

TABLE 5

Multinomial Logistic Regression Analysis for Relationship between *Strength* of Horizontal and Vertical Ties and *Geographic Scope* of SME Growth

Model	Outcome Variable	Variable in the model	B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio	
									Lower	Upper
1	Geographic scope of growth ^a Regional	Intercept	.046	.354	.017	1	.896			
		Strength of horizontal ties	.726**	.285	6.489	1	.011**	2.067**	1.182	3.614
		Strength of vertical ties	-.661	.339	3.809	1	.051	.516	.266	1.003
	International	Intercept	.097	.351	.076	1	.783			
		Strength of horizontal ties	.902**	.293	9.470	1	.002**	2.464**	1.387	4.377
		Strength of vertical ties	-.406	.288	1.989	1	.158	.666	.379	1.171
2	Regional	Intercept	.009	.359	.001	1	.980			
		Strength of horizontal ties	.657*	.288	5.201	1	.023*	1.929*	1.097	3.391
		Strength of vertical ties	-.567	.346	2.680	1	.102	.567	.288	1.118
	International	Environmental munificence	.239	.153	2.429	1	.119	1.270	.940	1.714
		Intercept	.095	.351	.073	1	.788			
		Strength of horizontal ties	.833**	.290	8.228	1	.004**	2.300**	1.302	4.062
		Strength of vertical ties	-.333	.295	1.279	1	.258	.716	.402	1.277
	Environmental munificence	.162	.150	1.177	1	.278	1.176	.877	1.577	

a. The reference category is: 1 (Local).
 N = 65. * p < .05. ** p < .01.

TABLE 6

Multinomial Logistic Regression Analysis for Relationship between *Density* of Horizontal and Vertical Ties and *Geographic Scope* of SME Growth

Model	Outcome Variable	Variable in the model	B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio Lower	Upper
1	Geographic scope of growth ^a	Intercept	.046	.354	.017	1	.896			
		Regional	Density of horizontal ties	.726*	.285	6.489	1	.011*	2.067*	1.182
	International	Density of vertical ties	-.661	.339	3.809	1	.051	.516	.266	1.003
		Intercept	.097	.351	.076	1	.783			
		Density of horizontal ties	.902**	.293	9.470	1	.002**	2.464**	1.387	4.377
		Density of vertical ties	-.406	.288	1.989	1	.158	.666	.379	1.171
2	Regional	Intercept	.180	.384	.220	1	.639			
		Density of horizontal ties	.944**	.359	6.932	1	.008**	2.570**	1.273	5.191
		Density of vertical ties	-.531*	.232	5.243	1	.022*	.588*	.374	.926
	International	Environmental munificence	.369*	.165	5.017	1	.025*	1.447*	1.047	1.999
		Intercept	.233	.381	.374	1	.541			
		Density of horizontal ties	1.203**	.371	10.491	1	.001**	3.330**	1.608	6.897
		Density of vertical ties	-.554*	.232	5.713	1	.017*	.575*	.365	.905
		Environmental munificence	.270	.164	2.734	1	.098	1.310	.951	1.806
3	Regional	Intercept	.421	.450	.879	1	.348			
		Density of horizontal ties	1.308**	.448	8.518	1	.004**	3.698**	1.537	8.901
		Density of vertical ties	-.673*	.281	5.725	1	.017*	.510*	.294	.885
		Environmental munificence	.491*	.207	5.658	1	.017*	1.635*	1.090	2.451

		B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio	
International	Density of vertical ties x Environmental munificence	-.265*	.112	5.595	1	.018*	.767*	.616	.956
	Intercept	.497	.445	1.246	1	.264			
	Density of horizontal ties	1.558**	.460	11.496	1	.001**	4.750**	1.930	11.693
	Density of vertical ties	-.760**	.279	7.398	1	.007**	.468**	.271	.809
	Environmental munificence	.373	.197	3.600	1	.058	1.452	.988	2.134
	Density of vertical ties x Environmental munificence	-.230*	.104	4.860	1	.027*	.795*	.648	.975

a. The reference category is: 1 (Local).

N = 65. * p < .05. ** p < .01.

TABLE 7

Multinomial Logistic Regression Analysis for Relationship between *Density of Horizontal and Vertical Ties* and *Complexity of Contracts*

Model	Outcome Variable	Variables	B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio Lower	Upper
1	Complexity of contracts ^a Domestic direct and through intermediaries	Intercept	-.081	.321	.064	1	.800			
		Density of horizontal ties	.801*	.309	6.707	1	.010*	2.227*	1.215	4.082
		Density of vertical ties	-.405*	.201	4.035	1	.045*	.667*	.450	.990
		Trust	-.007	.136	.003	1	.957	.993	.761	1.295
	International direct and through intermediaries	Intercept	-.892	.432	4.268	1	.039			
		Density of horizontal ties	1.354**	.401	11.393	1	.001**	3.872**	1.764	8.497
		Density of vertical ties	-.304	.237	1.636	1	.201	.738	.463	1.175
		Trust	-.285	.156	3.315	1	.069	.752	.554	1.022
2	Domestic direct and through intermediaries	Intercept	-.084	.326	.067	1	.796			
		Density of horizontal ties	.790**	.311	6.438	1	.011**	2.204**	1.197	4.057
		Density of vertical ties	-.415*	.204	4.145	1	.042*	.661*	.443	.985
		Trust	-.014	.141	.010	1	.919	.986	.747	1.301
	International direct and through intermediaries	Environmental uncertainty	-.002	.053	.002	1	.967	.998	.899	1.107
		Intercept	-1.271	.527	5.816	1	.016			
		Density of horizontal ties	1.285**	.461	7.776	1	.005**	3.616**	1.465	8.925
		Density of vertical ties	-.491	.278	3.122	1	.077	.612	.355	1.055
		Trust	-.418*	.199	4.401	1	.036*	.658*	.446	.973

							Odds Ratio	95% C.I. of Odds Ratio		
	Environmental uncertainty	.216*	.092	5.480	1	.019*	1.241*	1.036	1.486	
3	Domestic direct and through intermediaries	Intercept	-.283	.368	.591	1	.442			
		Density of horizontal ties	.783*	.315	6.175	1	.013*	2.188*	1.180	4.058
		Density of vertical ties	-.384	.207	3.438	1	.064	.681	.454	1.022
		Trust	.052	.158	.107	1	.744	1.053	.773	1.434
		Environmental uncertainty	-.021	.058	.136	1	.713	.979	.874	1.096
		Trust x Environmental uncertainty	.025	.021	1.369	1	.242	1.025	.983	1.069
	International direct and through intermediaries	Intercept	-1.366	.583	5.488	1	.019			
		Density of horizontal ties	1.075*	.461	5.443	1	.020*	2.930*	1.188	7.230
		Density of vertical ties	-.507	.280	3.276	1	.070	.602	.348	1.043
		Trust	-.039	.271	.021	1	.885	.962	.566	1.634
		Environmental uncertainty	.269*	.113	5.641	1	.018*	1.308*	1.048	1.633
		Trust x Environmental uncertainty	-.088	.052	2.916	1	.088	.915	.827	1.013

a. The reference category is: 1 (Domestic direct).
N = 65. * p < .05. ** p < .01.

TABLE 8

**Multinomial Logistic Regression Analysis for Relationship between *Strength* of Horizontal and Vertical Ties
and *Complexity of Contracts***

Model	Outcome Variable	Variables	B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio	
									Lower	Upper
1	Complexity of contracts ^a Domestic direct and through intermediaries	Intercept	-.160	.309	.266	1	.606			
		Strength of horizontal ties	.444	.237	3.504	1	.061	1.558	.979	2.479
		Strength of vertical ties	-.401	.307	1.713	1	.191	.669	.367	1.221
		Trust	.089	.122	.533	1	.465	1.093	.860	1.390
	International direct and through intermediaries	Intercept	-1.114	.461	5.832	1	.016			
		Strength of horizontal ties	1.097**	.345	10.145	1	.001**	2.996**	1.525	5.886
		Strength of vertical ties	-.079	.297	.071	1	.790	.924	.516	1.654
		Trust	-.236	.148	2.544	1	.111	.790	.591	1.056
2	Domestic direct and through intermediaries	Intercept	-.146	.317	.211	1	.646			
		Strength of horizontal ties	.443	.237	3.500	1	.061	1.558	.979	2.479
		Strength of vertical ties	-.473	.323	2.149	1	.143	.623	.331	1.173
		Trust	.080	.129	.386	1	.534	1.084	.841	1.397
	International direct and through intermediaries	Environmental uncertainty	.018	.053	.116	1	.733	1.018	.918	1.130
		Intercept	-1.404	.535	6.876	1	.009			
		Strength of horizontal ties	1.102**	.402	7.508	1	.006**	3.011**	1.369	6.625
		Strength of vertical ties	-.324	.343	.894	1	.344	.723	.370	1.415

Model	Outcome Variable	Variables	B	Std.Error	Wald	df	p	Odds Ratio	95% C.I. of Odds Ratio
		Trust	-.335	.177	3.600	1	.058	.715	.506 1.011
		Environmental uncertainty	.199*	.082	5.901	1	.015*	1.220*	1.039 1.433
3	Domestic direct and through intermediaries	Intercept	-.317	.352	.809	1	.368		
		Strength of horizontal ties	.405	.241	2.818	1	.093	1.499	.934 2.403
		Strength of vertical ties	-.400	.318	1.580	1	.209	.670	.359 1.251
		Trust	.140	.144	.944	1	.331	1.151	.867 1.527
		Environmental uncertainty	.003	.057	.003	1	.960	1.003	.898 1.121
		Trust x Environmental uncertainty	.024	.020	1.499	1	.221	1.024	.986 1.064
	International direct and through intermediaries	Intercept	-1.436	.565	6.450	1	.011		
		Strength of horizontal ties	.944*	.394	5.748	1	.017*	2.569*	1.188 5.558
		Strength of vertical ties	-.514	.401	1.638	1	.201	.598	.272 1.314
		Trust	.024	.255	.009	1	.924	1.025	.621 1.689
		Environmental uncertainty	.267*	.112	5.712	1	.017*	1.306*	1.049 1.626
		Trust x Environmental uncertainty	-.086	.052	2.675	1	.102	.918	.828 1.017

a. The reference category is: 1 (Domestic direct)

N = 65. * p < .05. ** p < .01.

TABLE 9**Summary of the Findings in the Study**

Hypothesis	Tested relationship	Results
1.1	Bridging capital of SMEs operating in emerging markets will be positively associated with an SME growth outside its home region.	Partially supported
1.2	Bonding capital of SMEs operating in emerging markets will be positively associated with SME growth.	Partially supported
1.3	Denatured SMEs will exhibit more horizontal bridging ties than traditional SMEs.	Supported
1.4	Denatured SMEs will exhibit less bonding capital than traditional SMEs.	Supported
2.1	SMEs with greater bridging capital will be more likely to select wide growth in geographic scope.	Partially supported
2.2	SMEs with greater bonding capital will be more likely to select wider growth in geographic scope.	Not supported
2.3	Greater bridging capital is more likely to lead to the utilization of more complex contracts.	Partially supported
2.4	Greater bonding capital is more likely to lead to the utilization of more complex contracts.	Not supported
3.	Internationalizing SMEs will exhibit more horizontal bridging ties than domestic SMEs.	Supported
4.1	Human capital will positively moderate the relationship between bonding and bridging social capital and SME growth outcomes.	Not supported
4.2	Human capital will positively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.	Not supported
4.3	Human capital will positively moderate the relationship between bonding and bridging social capital and the complexity of SME contracts.	Not supported
4.4	Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and SME growth outcomes.	Not supported
4.5	Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.	Not supported
4.6	Environmental uncertainty will negatively moderate the relationship between bonding and bridging social capital and the complexity of SME contracts.	Partially supported
4.7	Environmental munificence will positively moderate the	Not

Hypothesis	Tested relationship	Results
	relationship between bonding and bridging social capital and SME growth outcomes.	supported
4.8	Environmental munificence will positively moderate the relationship between bonding and bridging social capital and the geographic scope of SME growth.	Partially supported
4.9	Environmental munificence will positively moderate the relationship between bonding and bridging social capital and complexity of SME contracts.	Not supported

FIGURES

FIGURE 1

Woolcock’s Conceptualization of Economic Development

High	<p>Micro level: “Ànomie”</p> <p>Macro level: Predation, corruption</p>	<p>Micro level: “Social Opportunity”</p> <p>Macro level: Cooperation, accountability, flexibility</p> <p>IV</p>	
Bridging	II		
Social			
Capital	<p>Micro level: “Amoral individual-ism”</p> <p>Macro level: Anarchy</p> <p>I</p>	<p>Micro level: “Amoral familism”</p> <p>Macro level: Inefficiency, ineffectiveness</p> <p>III</p>	
Low	Bonding Social Capital		High

Source: (Woolcock, 1998: 172, 177)

FIGURE 2

Relations between Social Capital and SME Growth

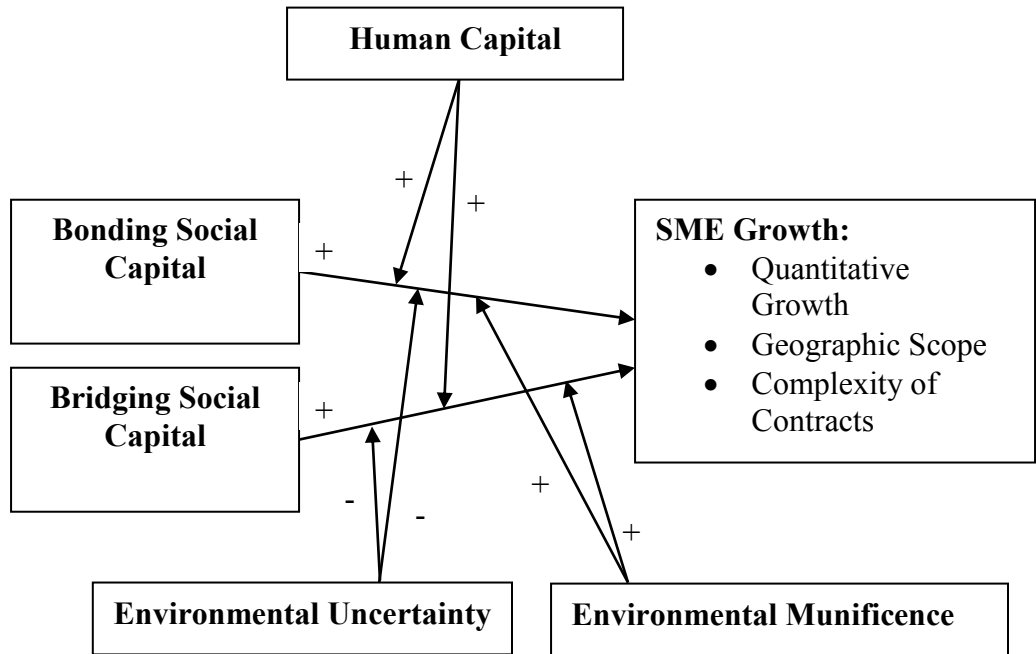


FIGURE 3

**Between-group Differences in *Density of Horizontal Ties* for
*International and Denatured SMEs***

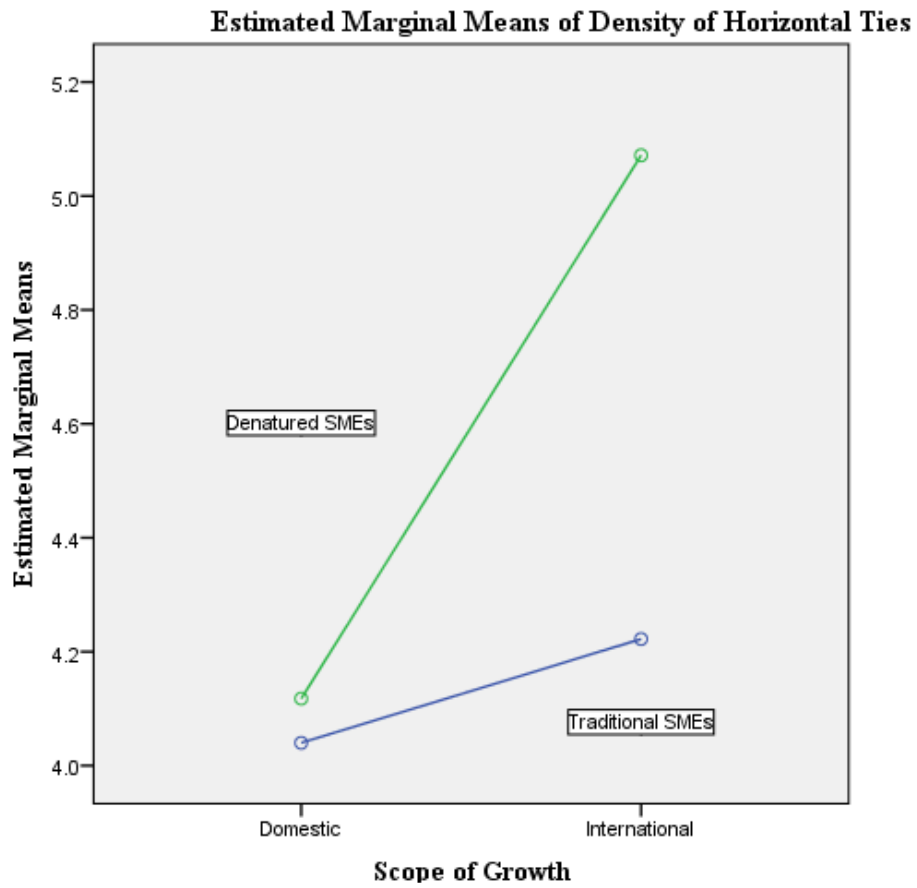


FIGURE 4

**Between-group Differences in *Density of Horizontal Ties* for
*Domestic and International SMEs***

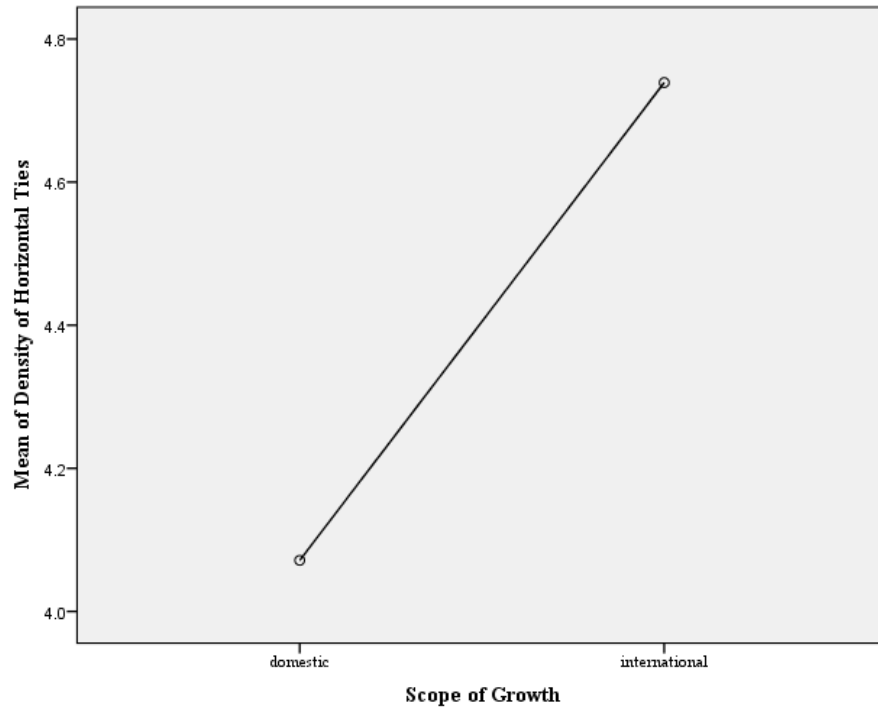
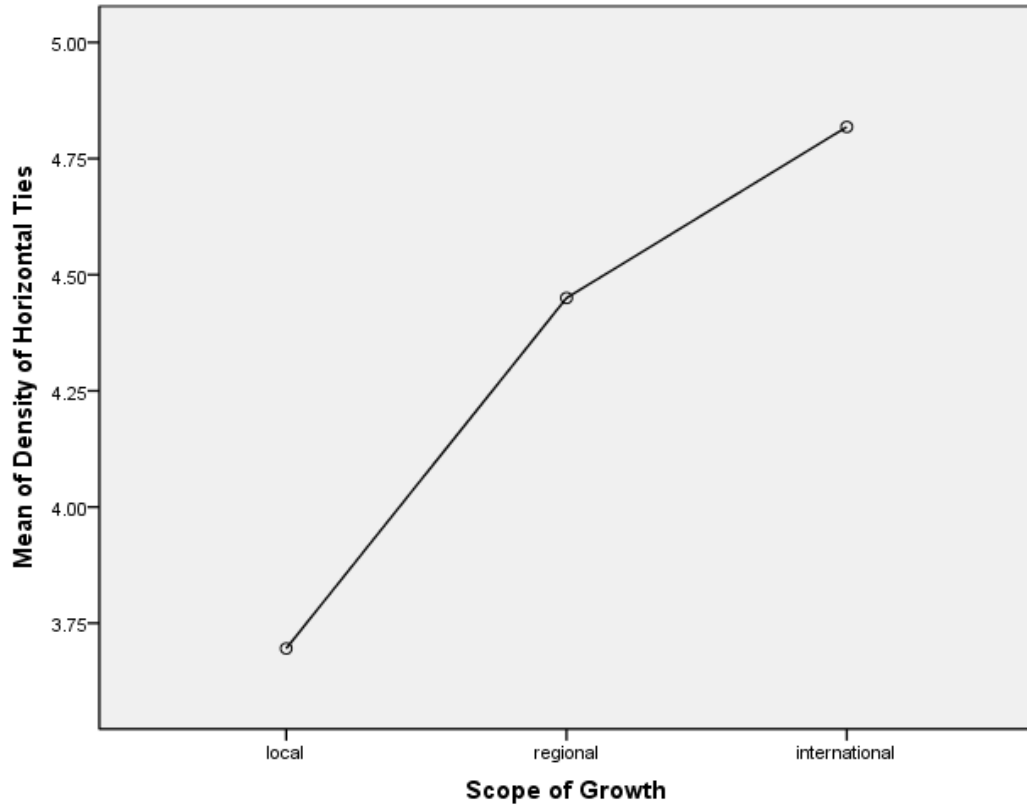


FIGURE 5

**Between-group Differences in *Density of Horizontal Ties* for SMEs
with *Local, Regional, and International* Growth Strategy**



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APPENDIX A

Summary of Terms Used in the Study

Term used in the study	Definition
Emerging market	"A country that satisfies two criteria: a rapid pace of economic development, and government policies favoring economic liberalization and the adoption of a free-market system" (Hoskisson, Eden, Lau, and Wright, 2000: 249).
Denatured SME (Anti-small business concept)	"A small-sized firm that is highly decentralized, with a high level of job specialization and an explicit, long-term strategy, having complex, formal internal and external, information systems and working on a world market" (Torrès & Julien, 2005: 363)
Social capital	"The goodwill that is engendered by the fabric of social relations and that can be mobilized to facilitate action" (Adler & Kwon, 2002: 17).
Bonding social capital	"Collective actors' internal characteristics" (Adler & Kwon, 2002:21)
Bridging social capital	"A resource located in the external linkages of a focal actor" (Adler & Kwon, 2002: 21),
Social relations	"Social relations, in which favors and gifts are exchanged" (Adler & Kwon, 2002 :18)
Business relations	"Market relations, in which products and services are exchanged for money or bartered" (Adler & Kwon, 2002 :18)
Hierarchical relations	"Hierarchical relations, in which obedience to authority is exchanged for material and spiritual security" (Adler & Kwon, 2002 :18)
Horizontal ties (linkages, connections)	Market and social relations (Adler & Kwon, 2002)
Vertical ties, Institutional ties (linkages, connections)	Hierarchical relations (Adler & Kwon, 2002) Relations with various institutions, including government and administrative structures, financial institutions (Xu et al., 2012)
Strength of ties	"The strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (Granovetter, 1973: 1361).
Strong ties	1) "Involve larger time commitments", "the stronger the tie connecting two individuals, the more similar they are, in various ways" (Granovetter, 1973: 1362);

Term used in the study	Definition
	2) "Breeding local cohesion" (Granovetter, 1973: 1378); 3) "Close or special relationships" (Uzzi, 1997: 41).
Weak ties	1) "Between groups" (Granovetter, 1973); 2) "Create more, and shorter, paths" (Granovetter, 1973: 1365).
Arm's length ties	1) Market relationships (Uzzi, 1997) 2) "Lean and sporadic transactions" (Uzzi, 1999: 483)

APPENDIX B

Costs and Benefits of Bonding and Bridging Social Capital

Implications	Bonding Social Capital	Level of analysis	Bridging Social Capital	Level of analysis
Costs	<i>Limits access</i> to external resources and information (De Carolis and Saporito, 2006)	Individual	<i>Conformity pressures</i> if a network is large (Burt, 1997)	Individual Network
	Creates <i>unequal access</i> to social networks, <i>power asymmetries</i> , and <i>rent-seeking behavior</i> (Bowles & Gintis, 2002; Molyneux, 2002).	Group, Society		
	<i>Over-commitment</i> limits cooperative behavior, learning and adaptability (Kaminska, 2010)	Organization		
	<i>Limits developmental options</i> by locking within group boundaries (Gargiulo & Benassi, 2000; Putnam, 1993; Uzzi, 1997; Woolcock, 1998)	Individual Dyad Group		
Benefits	Provides <i>social identity</i> (Woolcock, 1998)	Individual Group Organization	Helps to <i>suppress group-thinking</i> (McEvity & Zaheer, 1999)	Group Organization
	Fosters <i>information exchange</i> and <i>innovations</i> (Gargiulo & Benassi, 2000; Putnam 1993; Tsai & Ghoshal, 1998)	Dyad Group Society	Access to <i>new information and opportunities</i> (Burt, 1997; Granovetter, 1973; McEvity & Zaheer, 1999; Peng, 2004; Putnam, 1993, 2000; Shane & Venkataraman, 2000; Zahra, 2010)	Individual Group Organization Network

Implications	Bonding Social Capital	Level of analysis	Bridging Social Capital	Level of analysis
	Provides <i>access to scarce resources</i> and <i>emotional support</i> (Assudani, 2009)	Individual	Provides <i>access to resources</i> (Leana & Van Buren, 1999; Lin, 2001; Nahapiet & Ghoshal, 1998; Zahra, 2010)	Individual Group Organization
	Helps firm <i>resources recombination</i> (Galunic & Rodan, 1998)	Organization	Helps to <i>overcome strategic and resource disadvantages</i> (Park, & Luo, 2001)	Organization Network
	<i>Facilitates actions and transactions</i> (Coleman, 1988)	Group Organization Network	<i>Facilitates economic transactions</i> (Grabher & Stark, 1997; Granovetter, 1973; McMillan & Woodruff, 1999; van Staveren & Knorringa, 2007)	Individual Group Organization
	<i>Lowers transaction costs</i> (Cardoza & Fornes, 2011; Putnam 1993)	Group Organization Society	<i>Improves performance</i> (Acquaah, 2007; Batjargal, 2003; Gulati, 1998; Koka & Prescott, 2002; Park & Luo, 2001; Peng & Luo, 2000; Rowley, Behrens & Krackhardt, 2000)	Individual Organization Network
	Helps entrepreneurs to <i>establish their business</i> (Kaminska, 2010; Peng, 2004); improves <i>firm survival</i> (Penning, Lee, & van Witteloostuijn, 1998)	Individual Organization Network	Increases chances to <i>exploit new opportunities</i> (Cardoza & Fornes, 2011; Grabher & Stark, 1997; Woolcock, 1998)	Individual Group Organization
	Fosters <i>generalized reciprocity, coordination, and cooperation</i> (Adler, 2001; Dyer, 1996; Macneil, 1980; Putnam, 1993; Sako, 1992; Uzzi, 1997)	Dyad Organization Network Society	Helps developing <i>novel competitive strategies</i> (Geletkanycz & Hambrick, 1997)	Group Organization
	Enforces <i>mutual commitment, help, and trustworthy behavior</i> (Peng, 2004; Woolcock, 1998)	Individual Group	Allows for <i>more cooperation</i> (McMillan & Woodruff, 1999)	Organization Network

Implications	Bonding Social Capital	Level of analysis	Bridging Social Capital	Level of analysis
	Stimulates <i>coherent actions</i> and <i>common vision</i> (McCallum & O'Connell, 2009)	Group Organization	Stimulates <i>long-term partnerships</i> (Chung, Singh & Lee, 2000)	Dyad
	Allows for <i>unique information sharing, trust, and meaningfulness</i> for a family firm (Pearson, Carr and Shaw, 2008; van Staveren & Knorringa, 2007)	Group Organization	Source of <i>legitimacy and credibility</i> ; an instrument of <i>leveraging</i> new knowledge and resources (Alvarez and Barney, 2001; Park, & Luo, 2001; Yli-Renko, Autio & Sapienza, 2000)	Network Group Organization
	<i>Shared goals and values</i> (Putnam, 1993)	Society	Stimulates the <i>development of firm capabilities</i> (Gulati, 1998; McEvity & Zaheer, 1999)	Organization
	Helps <i>share and transfer critical and tacit knowledge</i> (Uzzi, 1996; Uzzi & Lancaster, 2003)	Group Organization	Facilitates <i>communication of explicit knowledge</i> (Uzzi & Lancaster, 2003)	Individual Organization
	Increases <i>knowledge-intensity</i> and <i>international growth</i> (Yli-Renko et al., 2002)		Facilitates <i>exploratory behavior and innovations</i> (Coviello, 2006; Prashantham, 2008)	Organization
	Improves organization outcomes (Leana & Pil, 2006)	Organization	<i>Career advancement</i> (Burt, 1997; Granovetter, 1973)	Individual

APPENDIX C

Variables Description

Variable	Measure	Range and description	Source
Independent Variables			
Bonding Social Capital -Structural	Information sharing	6 to 30 Modified six items scale	Hyatt & Ruddy, 1997; Leana & Pil, 2006
Bonding Social Capital -Relational	Trust	6 to 30 Modified six items scale	Leana & Pil, 2006
Bridging Social Capital – Relational	Strength - vertical	0 to 7 Measured by reciprocity of relationship (close = 1; distant = 0)	Granovetter, 1973
	Strength - horizontal	0 to 8 Measured by reciprocity of relationship (close = 1; distant = 0)	Granovetter, 1973
Bridging Social Capital – Structural	Density - vertical	0 to 7 Measured by the number of ties	Boissevain, 1974; Cao et al., 2010; Xu et al., 2012; Yiu et al., 2007
	Density - horizontal	0 to 8 Measured by the number of ties	Boissevain, 1974; Cao et al., 2010; Xu et al., 2012; Yiu et al., 2007
Dependent Variables			
Firm Growth - Quantitative	Total Growth	Average of percentage growth in sales for 2 years	Florin et al, 2003; Zahra et al., 2000
	Regional Growth	Percentage of revenue from all activities outside of local market	Bonaccorsi, 1992; Calof, 1994; Zahra et al., 2007
	Out of home region growth	Total Growth weighted by Regional Growth	Based on Bonaccorsi, 1992; Calof, 1994; Zahra et al., 2007
Firm Growth - Qualitative	Geographic Scope of Growth	1 - Local; 2 - Regional; 3 – International Categorical measure	Qualitative assessment based on Zahra et al., 1997, 2007; Sullivan, 1994; Tallman & Li, 1996
	Complexity of Contracts	1 - Direct domestic sales or purchasing; 2 - Direct domestic sales	Qualitative assessment based on Manolova et al., 2002

Variable	Measure	Range and description	Source
		or purchasing, and agency or distribution agreements, 3 - All of the above and foreign contracts or partnerships Categorical measure	
Control Variables			
Firm age	Age	Number of years as of firm founding	
Firm size	Size	Natural logarithm of the number of employees	Lu and Beamish, 2001
Industry	Industry	0 – Low to moderate technology intensity 1 – Moderate to high technology intensity Categorical measure	Classification of manufacturing industries into categories based on R&D intensities, OECD, 2011
SME denaturing	Business group affiliation	0 – Non affiliated firm 1 – Affiliated firm	
Moderators			
Human Capital	Education	Years, based on full complete level of education	Wiklund & Shepherd, 2003a
	Experience	0 to 3 Sum of three items coded 0 or 1	Wiklund & Shepherd, 2003a
	Aspiration for Growth	4 to 28 Four items scale	Wiklund & Shepherd, 2003a
External environment	Environmental uncertainty	1 to 42 Modified six items scale	Xu et al., 2012
	Environmental munificence	Average percentage of industry revenue increase for the last 3 years	Cao et al., 2010; Keats & Hitt, 1988; McDougall et al., 1994; Peng & Luo, 2000

APPENDIX D

Scale based measures used in the study

1. *Bonding Social Capital* (items partially reworded):
 - a) *Information sharing* (Hyatt & Ruddy, 1997; Leana & Pil, 2006); measured using a 5-point Likert scale; reported Cronbach's alpha=0.89
 - IS1. Managers engage in open and honest communication with one another.
 - IS2. Managers at this firm have no hidden agendas or issues.
 - IS3. Managers share and accept constructive criticisms without making it personal.
 - IS4. Managers discuss personal issues if they affect job performance.
 - IS5. Managers willingly share information with one another.
 - IS6. Managers at this firm keep each other informed at all times.
 - b) *Trust* (Leana & Pil, 2006); measured using a 5-point Likert scale; reported Cronbach's alpha = 0.88
 - T1. I can rely on the managers I work with in this firm.
 - T2. Managers in this firm are usually considerate of one another's feelings.
 - T3. Managers have confidence in one another in this firm.
 - T4. Managers in this firm show a great deal of integrity.
 - T5. There is no "team spirit" among managers in this firm (reversed).
 - T6. Overall, Managers at this firm are trustworthy.

2. *Aspiration for growth* (Wiklund and Shepherd, 2003a); measured using a 7-point Likert scale; reported Cronbach's alpha = 0.72

GA1. What is your assessment of a 25 percent increase in your firm sales in five years?

GA2. What is your assessment of a 100 percent increase in the number of employees in five years?

If a respondent reports the higher value for question 2 than question 1, their answer for question 1 will be manually re-recorded as seven (the highest value) on a 25% growth scale.

GA3. What is the ideal size of your firm in five years in terms of sales?

GA4. What is the ideal size of your firm in five years in terms of the number of employees?

Responses to questions 3 and 4, together with current sales and firm size figures (for year 2010) will be used to calculate the growth rates, and each rate (percent of growth) will be converted to two seven-point scales.

4. *Environmental uncertainty* (Xu et al., 2012); measured using a 7-point Likert scale; reported Cronbach's alpha = 0.76.

EU1. It is important for our business to develop strategies that are competitor-oriented in the long run

EU2. We regularly review the core capabilities of our current and potential competitors.

EU3. We exchange views on the information about competitors between managers and employees.

EU4. Senior executives pay little attention to competitors' strategies.

EU5. We share information about competitors within the company.

EU6. We discuss competitor's strategy and competitive advantage at the management level.

APPENDIX E

CONSENT TO PARTICIPATE IN THE RESEARCH PROJECT

“Social Capital and SME Growth: an Emerging Market Perspective”

I understand that I have been asked to participate in a program of research being conducted by Natalya Totskaya, the PhD Candidate under the supervision of Dr. Michael Carney of the Management Department of Concordia University. Contact information for Natalya Totskaya: e-mail: n_totska@jmsb.concordia.ca; tel: (514) 848-2424, ext. 2738; contact information for Dr. M.Carney: e-mail: mcarney@jmsb.concordia.ca; tel: (514) 848-2424 ext 2937; address: MB 13.349, 1455 de Maisonneuve Blvd. West, Montreal, QC H3G 1M8, Canada). This research is conducted by Natalya Totskaya to fulfil the requirements of her PhD thesis.

A. PURPOSE

I have been informed that the purpose of the research is as follows: to explore the sources and the use of firm social capital. Social capital is the resource created by social relations; it is associated with reputation, trust, mutual understanding and cooperation that can enhance opportunities available to individuals, groups, and organizations. This project is intended to studying internal and external social connections as an engine of firm development, including strategies of local, regional, and international growth.

B. PROCEDURES

I understand that this study involves a variety of participants from small and medium companies operating in Siberian region of Russia. As a participant in the study, I will be asked to review a questionnaire, and take part in a semi-structured interview lasting about one hour. The interview will be conducted in my office and will be recorded using notes and voice recorder. During the interview I will be asked to cover issues related to the formation, development and deployment of firm social capital.

The information collected will be treated in a confidential manner. Only the researcher will know the identity of participants. No information that could reveal the identity of any participant or the name of participating company will be disclosed. References in the data collection and analysis will be made through generalizations toward broad characteristics of firms participating in this study. The interview notes and tape recording will be destroyed after transferring into electronic format, and checking for possible errors. The data in electronic format will be kept in password protected computer at the management department. The data will be destroyed 5 years after publishing.

C. RISKS AND BENEFITS

I understand that there are no risks to me or to my company related to my participation in this research project. Instead my company can benefit from better understanding of own business practices, and national specifics of social capital development.

D. CONDITIONS OF PARTICIPATION

I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences.

I understand that my participation in this study is confidential (i.e. researcher will know, but will not disclose my identity).

I understand that the data from this study may be published.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT.
I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) _____

SIGNATURE _____

If at any time you have questions about the proposed research, please contact the study's Principal Investigator Dr. Michael Carney, Management Department, Concordia University, tel: +1 (514)848-2424 ext 2937; e-mail: mcarney@jmsb.concordia.ca

If at any time you have questions about your rights as a research participant, please contact the Research Ethics and Compliance Advisor, Concordia University, +1 (514)848-2424 ex. 7481, e-mail: ethics@alcor.concordia.ca

A questionnaire for the research project
“Social Capital and SME Growth: an Emerging Market Perspective”

Company information

Name of the company: _____

When was your company founded? Year _____

How many employees does your company have now? _____

Which industry is your company in? _____

Is this company family-owned? Yes No

Does your company have board of directors? Yes No

If YES—Are you on the board of directors? Yes No

Are you Chairman of the board? Yes No

Is your company affiliated with any business group? Yes No

If YES – How many other companies are members of your group? _____

If YES - Please describe what relationships connect your company with other group affiliates (check all relevant boxes):

- Formal contracts
- Informal connections
- Common ownership
- Equity cross holdings
- Co-founders of other companies
- Interlocking directors
- Financial linkages
- Other _____

If YES - What type of relationships prevail?

Firm Performance

What was the growth rate in your company's sales volume?

2010 vs. 2009 _____%

2009 vs. 2008 _____%

National Expansion

Is your company involved in any business outside your local market? Yes No

If YES - What percentage of your company revenue comes from domestic operations outside your local market /from other regions? _____%

If YES - How many regions your company sells to? _____

If YES - What types of domestic/regional partnerships is your company involved in?

Please check all relevant boxes:

- Buying raw materials and components (procurement)
- Direct sales
- Contracting (agency sales and/or distribution)
- Franchise
- Licensing (product or service)
- Other types of partnerships. Please specify:

Internationalization

Is your company involved in any business in foreign markets? Yes No

If YES what percentage of your company revenue comes from all international operations? _____%

If YES - How many foreign countries your company sells to? _____

If YES - In which year did your company first sell or operate overseas?
Year _____

Is your company involved in (please check all relevant boxes):

- Import
- Direct export
- Export through an intermediary
- Contracting (agency sales and/or distribution)
- Franchise
- Licensing (product or service)
- International Joint Venture (product or service)
- Other types of partnerships. Please specify: _____

Personal background

Are you one of the company's co-founders? Yes No

How many years have you worked in this company? _____yrs

Your job title / position? _____

Years in this and closely related industries _____yrs

Have you had started another business (prior to starting your current business or prior to working for this company)? Yes No

Have you worked as a manager in any other organization for at least a year?
 Yes No

Have you worked as a manager in other organizations with annual sales growth of at least 20%? Yes No

How many years of work experience do you have in total? _____

What is your highest level of completed education? Please mark the highest level of completed education:

- High School Diploma
- College Diploma
- University – Specialist Diploma
- University – Bachelor Degree
- University – Master Degree
- Post Graduate – Candidate of Sciences
- Post Graduate – Doctor of Sciences

Organizational Social Capital

Internal Social Capital

In this question we are interested in interpersonal relationships in your company. For the next set of statements please indicate the extent to which each of the following statements is true or untrue by circling one item that best describes your view.

(1= very untrue, 3 = neutral, 5 = very true)

At this company:	Very untrue			Very true		Not applicable
Managers engage in open and honest communication with one another	1	2	3	4	5	0
Managers are usually considerate of one another's feelings	1	2	3	4	5	0
Managers have no hidden agendas or issues	1	2	3	4	5	0
Managers share and accept constructive criticisms without making it personal	1	2	3	4	5	0
Managers discuss personal issues if they affect job performance	1	2	3	4	5	0

I can rely on the managers I work with	1	2	3	4	5	0
Managers willingly share information with one another	1	2	3	4	5	0
Managers at this firm keep each other informed at all times	1	2	3	4	5	0
Managers show a great deal of integrity	1	2	3	4	5	0
Managers have confidence in one another	1	2	3	4	5	0
There is no “team spirit” among managers	1	2	3	4	5	0

External Social Capital

Please think about all the business contacts that outside of your firm, who are **important**, or **potentially important**, to **helping to achieve your company’s objectives or help your company development**. How many of them fall in the following categories?

	Our company maintains connections with.... (please circle)		If YES please indicate for each of the categories				number of contacts per week with...	number of hours spent per average week with	If you go out with for social activities outside work (i.e. as personal friends)?	How much percentage in each of the categories was initially your unique contacts (i.e., no other top managers knew prior to the firm-level connections)?
			If relationship is (please circle)		close	distant				
Customers	yes	no	close	distant					%	
Suppliers	yes	no	close	distant					%	
Partners	yes	no	close	distant					%	
Competitors	yes	no	close	distant					%	
Banks	yes	no	close	distant					%	
Financial agencies	yes	no	close	distant					%	
Federal government	yes	no	close	distant					%	
Regional government	yes	no	close	distant					%	
Municipal Government	yes	no	close	distant						

					If YES please indicate for each of the categories			How much <i>percentage</i> in each of the categories was initially your unique contacts (i.e., no other top managers knew prior to the firm-level connections)?
	Our company maintains connections with.... (please circle)		If relationship is (please circle)	number of contacts per week with...	number of hours spent per average week with	If you go out with for social activities outside work (i.e. as personal friends)?		
Administrative agencies	yes	no	close	distant				%
Professional associations	yes	no	close	distant				%
City / Regional Chamber of Commerce	yes	no	close	distant				
Foreign commercial structures	yes	no	close	distant				
Foreign country authorities	yes	no	close	distant				%
Diaspora /Overseas ethnic community members	yes	no	close	distant				%
Other (please specify):								
	yes	no	close	distant				%
	yes	no	close	distant				%

Growth Aspirations

We are interested in assessing your growth aspirations. Please indicate the extent to which each of the following statements is true or untrue by circling one item that best describes your view.

(1= very negative, 4 = neutral, 7 = very positive)

<i>For this company</i>	Very negative			Very positive			
What is your assessment of a 25 percent increase in the number of employees in five years?	1	2	3	4	5	6	7

What is your assessment of a 100 percent increase in the number of employees in five years?	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

What is the ideal size of your firm in five years in terms of sales? _____

What is the ideal size of your firm in five years in terms of the number of employees? _____

Environmental Uncertainty

In this question we are interested in assessment of environmental uncertainty. For the next set of statements please indicate to which extent you agree that each of the following statements.

(1= disagree very strongly, 4 = neutral, 5 = agree very strongly)

At this company:	Disagree very strongly				Agree very strongly		
It is important for our business to develop strategies that are competitor-oriented in the long run	1	2	3	4	5	6	7
We regularly review the core capabilities of our current and potential competitors	1	2	3	4	5	6	7
We regularly exchange views on the information about competitors between managers and employees	1	2	3	4	5	6	7
Senior executives pay little attention to competitors' strategies	1	2	3	4	5	6	7
Share information about competitors within the company	1	2	3	4	5	6	7
Discuss competitor's strategy and competitive advantage at the management level.	1	2	3	4	5	6	7

APPENDIX F

Questionnaire in Russian

**"СОЦИАЛЬНЫЙ КАПИТАЛ И СТРАТЕГИИ
РАЗВИТИЯ: МАЛЫЕ И СРЕДНИЕ
ПРЕДПРИЯТИЯ НА РАЗВИВАЮЩИХСЯ
РЫНКАХ"**

**Анкетирование малых и средних предприятий
в рамках проекта исследования рынков
Бразилии,
России, Индии и Китая**

**СОГЛАСИЕ УЧАСТВОВАТЬ В ИССЛЕДОВАТЕЛЬСКОМ ПРОЕКТЕ
"СОЦИАЛЬНЫЙ КАПИТАЛ И СТРАТЕГИИ РАЗВИТИЯ: МАЛЫЕ И СРЕДНИЕ
ПРЕДПРИЯТИЯ НА РАЗВИВАЮЩИХСЯ РЫНКАХ"**

Я понимаю, что я приглашен(а) принять участие в программе исследований, проводимой Натальей Тоцкой, докторантом под руководством доктора Майкла Карни с кафедры менеджмента Университета Конкордия. Контактная информация Натальи Тоцкой: эл.почта: n_totska@jmsb.concordia.ca, тел.: (514) 848-2424, доп. 2738; контактная информация доктора М. Карни: эл. почта: mcarney@jmsb.concordia.ca, тел.: (514) 848-2424, доп. 2937, адрес: МВ 13.349, 1455 бульвар Де Мезаннёв Вест, Монреаль, Квебек, Н3Г 1М8, Канада. Данное исследование проводится Натальей Тоцкой для ее докторской диссертации.

А. ЦЕЛЬ

Я уведомлен(а), что целью данного исследования является изучение источников формирования и направлений использования социального капитала предприятия. Социальный капитал - это ресурс, создаваемый межличностными связями. Социальный капитал ассоциируется с репутацией, доверием, взаимопониманием и сотрудничеством, которые улучшают возможности для развития отдельных лиц, групп и организаций. Данный проект направлен на изучение внешних и внутренних социальных связей как источника роста предприятия, включая местное, региональное и международное развитие.

В. ПРОЦЕДУРЫ

Я понимаю, что в данном исследовании участвуют представители различных малых и средних предприятий Сибири. Как участник исследования, я буду ознакомлен вопросами анкеты и приму участие в интервью длительностью около 1 часа, содержащем открытые и закрытые вопросы. Интервью будет проведено в моем офисе и записано с помощью рукописных заметок и диктофона. Во время интервью будут обсуждаться вопросы, связанные с созданием, развитием и применением социального капитала предприятия.

Информация, собранная в результате данного исследования, будет конфиденциальной. Только исследователь будет знать личность участников и то, какие предприятия они представляют. Никакие сведения о личностях участников, названиях предприятий, а также коммерческая информация предприятий не будут разглашены. Все ссылки на собранную информацию будут сделаны в форме обобщения характеристик предприятий, участвующих в исследовании. Заметки и аудиозаписи интервью будут уничтожены после перевода данных в электронный формат и проверки на наличие ошибок. Данные в электронном формате будут храниться в компьютере на кафедре менеджмента, доступ к которому защищен паролем. Данные будут уничтожены через пять лет после публикации.

C. РИСКИ И ВЫГОДЫ

Я понимаю, что мое участие в исследовании не создает никаких рисков для меня или моего предприятия. Напротив, мое предприятие получит выгоду от лучшего понимания собственной практики ведения бизнеса, и национальной специфики развития собственного капитала.

D. УСЛОВИЯ УЧАСТИЯ

Я понимаю, что я имею право отозвать свое согласие и прекратить участие в исследовании в любой момент без каких-либо негативных последствий.

Я понимаю, что мое участие в данном исследовании конфиденциально (т.е. исследователь будет знать, но не имеет права разглашать личность участника).

Я понимаю, что данные, собранные в данном исследовании, могут быть опубликованы.

Я ТЩАТЕЛЬНО ИЗУЧИЛ(А) ВЫШЕИЗЛОЖЕННОЕ, И Я ПОНИМАЮ ДАННОЕ СОГЛАШЕНИЕ. Я ОТКРЫТО ДАЮ СВОЕ СОГЛАСИЕ И ДОБРОВОЛЬНО УЧАСТВУЮ В ДАННОМ ИССЛЕДОВАНИИ.

ИМЯ И ФАМИЛИЯ (печатными буквами)

ПОДПИСЬ

Если у Вас возникнут вопросы о данном исследовании, пожалуйста, обращайтесь к Ведущему Исследователю данного проекта доктору Майклу Карни, кафедра менеджмента, Университет Конкордия, тел.: +1 (514) 848-2424 доп.2937, эл.почта: mcarney@jmsb.concordia.ca

Если у Вас возникнут вопросы о Ваших правах как участника данного проекта, пожалуйста, обращайтесь к Советнику по Этике Исследований и Выполнения Правовых Норм Университета Конкордия, тел.: +1 (514) 848-2424 ext 7481; e-mail: ethics@alcor.concordia.ca

ИНФОРМАЦИЯ О КОМПАНИИ:

Название компании: _____

Когда была основана Ваша компания? _____ год

Сколько сотрудников в Вашей компании? _____

Основной вид деятельности? _____

Это семейный бизнес? Да Нет

Есть ли в Вашей компании совет директоров? Да Нет

Если **ДА**: Вы член совета директоров? Да Нет

Председатель совета директоров? Да Нет

Связана ли Ваша компания с какой-либо бизнес-группой (группой компаний)?

Да Нет

Если **ДА**, то сколько еще компаний участвуют в группе? _____

Если **ДА**, то опишите, пожалуйста, какие отношения связывают компании внутри группы? (отметьте нужное)

- формальные (договоры/контракты)
- неформальные связи
- общий собственник
- взаимное участие в уставном капитале друг друга
- со-учредители других компаний
- взаимное членство в советах директоров
- финансовые отношения
- другое _____

Если **ДА**, то какие отношения преобладают?
? _____

Общие результаты деятельности компании

Каким был прирост товарооборота Вашей компании в 2010 году по сравнению с 2009 годом? _____%

Прирост о товарооборота в 2009 году. по сравнению с 2008 годом ?
_____ %

Развитие на внутреннем рынке

Работает ли Ваша компания вне Новосибирской области (т.е. в других регионах)? Да Нет

Если **ДА** то какой совокупный процент от оборота Вашей компании приходится на операции в других регионах / на других рынках?
_____ %

Если **ДА**, то в скольких регионах работает Ваша компания ?

Если **ДА**, то какие типы соглашений заключены у Вашей компании с фирмами в других регионах?

- Закупка сырья, материалов, комплектующих
- Прямые продажи собственной продукции или услуг
- Агентские соглашения и/или дистрибуция
- Франчайзинг
- Лизинг
-

Прочее _____ (уточните, пожалуйста) _____

Внешнеэкономическая деятельность

Занимается ли Ваша компания внешнеэкономической деятельностью? Да Нет

Если **ДА**, то какой процент от оборота Вашей компании приходится на все зарубежные операции? _____ %

Если **ДА**, то на скольких зарубежных рынках (странах) работает Ваша компания?

Если **ДА**, то в каком году Вы впервые начали внешнеэкономическую деятельность? _____ год

Если **ДА**, то какими видами внешнеэкономической деятельности занимается Ваша компания? (отметьте нужное)

- Импорт
 - Экспорт без посредников
 - Экспорт через посредников
 - Агентские соглашения (продажа или дистрибуция)
 - Франчайзинг
 - Лизинг (финансовая аренда)
 - Совместное предприятие (производство товаров, оказание услуг)
 - Другие типы соглашений (уточните, пожалуйста)
-

ЛИЧНАЯ ИНФОРМАЦИЯ

Являетесь ли Вы со-учредителем компании? Да Нет

Сколько лет Вы работаете в этой компании? _____ лет

Ваша _____ должность _____ в _____ компании?

Сколько лет Вы работаете в данной отрасли или родственных отраслях? _____ лет

Есть ли у Вас опыт создания собственного бизнеса **до создания** данной компании или **до работы** в данной компании? Да Нет

Работали ли Вы на руководящих должностях в какой-либо другой компании **в течение года или более**? Да Нет

Работали ли Вы на руководящих должностях в какой-либо другой компании с **годовым темпом роста продаж (товарооборота) 20% или более**? Да Нет

Каков Ваш общий стаж работы? _____ лет

Каков наивысший уровень Вашего **законченного образования**?

- средняя школа
- училище или техникум
- институт или университет - диплом специалиста
- институт или университет - степень бакалавра
- институт или университет - степень магистра
- аспирантура
- докторантура

ОЦЕНКА СОЦИАЛЬНОГО КАПИТАЛА

Внутренний социальный капитал

В этом вопросе нас интересуют **межличностные отношения в Вашей компании**. Используя шкалу от 1 до 5, пожалуйста, отметьте, насколько верно или неверно каждое из последующих утверждений о Вашей компании. Рядом с каждым утверждением отметьте цифру, которая наилучшим образом описывает Ваше мнение. Если какое-либо из утверждений не относится к Вашей компании, отмените "не применимо".

(1= Совершенно не так, 3 = Нейтрально, 5 = Абсолютная правда)

В нашей компании:	Совершенно Абсолютная не так правда				
Руководители общаются между собой честно и открыто	1	2	3	4	5
Руководители обычно тактично относятся к чувствам друг друга	1	2	3	4	5
У руководителей нет тайных планов или разногласий	1	2	3	4	5
Руководители высказывают и принимают конструктивную критику, не переходя на личности	1	2	3	4	5
Руководители обсуждают личные проблемы, если они влияют на результаты работы	1	2	3	4	5
Я могу положиться на руководителей, с которыми работаю	1	2	3	4	5
Руководители охотно делятся информацией друг с другом	1	2	3	4	5
Руководители нашей компании постоянно держат друг друга в курсе событий	1	2	3	4	5
Руководители проявляют большую честность	1	2	3	4	5
Руководители доверяют друг другу	1	2	3	4	5
У руководителей нет "духа товарищества"	1	2	3	4	5

Внешний социальный капитал

В данном разделе мы пытаемся определить характер и интенсивность внешних связей Вашей компании. Подумайте, пожалуйста, **обо всех внешних деловых контактах**, которые **важны** или **потенциально важны** для достижения поставленных Вашей компанией целей, или для дальнейшего развития Вашей компании. Сколько из этих контактов попадает в следующие категории?

			Если ДА, то отметьте, пожалуйста, по каждой из категорий.....				Какой процент контактов в каждой категории изначально были Вашими личными контактами (т.е. другие руководители не имели эти контакты, пока Вы их не установили для Вашей компании?)
	Наша компания поддерживает отношения с...		Эти отношения тесные (близкие) или формальные?	Количество контактов в неделю (в среднем) с...	Количество часов в неделю (в среднем), затрачиваемое на контакты с...	Общаетесь ли вы вне работы, неформально (т.е. как друзья, приятели)?	
Потребители	да	нет	тесные	формальные			%
Поставщики	да	нет	тесные	формальные			%
Деловые партнеры	да	нет	тесные	формальные			%
Конкуренты	да	нет	тесные	формальные			%
Банки	да	нет	тесные	формальные			%
Финансовые агентства и фонды	да	нет	тесные	формальные			%
Федеральные структуры: (министерства, службы, и агентства)	да	нет	тесные	формальные			%
Региональные органы власти	да	нет	тесные	формальные			
Муниципальные органы власти	да	нет	тесные	формальные			
Административн	да	нет	тесные	форм			%

					Если ДА, то отметьте, пожалуйста, по каждой из категорий.....			Какой процент контактов в каждой категории изначально были Вашими личными контактами (т.е. другие руководители не имели эти контакты, пока Вы их не установили для Вашей компании?)
	Наша компания поддерживает отношения с...		Эти отношения тесные (близкие) или формальные?		Количество контактов в неделю (в среднем) с...	Количество часов в неделю (в среднем), затрачиваемое на контакты с...	Общаетесь ли вы вне работы, неформально (т.е. как друзья, приятели)?	
ые структуры				а- льные				
Профессиональн ые объединения и ассоциации	да	нет	тесные	форм а- льные				%
Городская и/или региональная торг-ово- промышленная палата	да	нет	тесные	форм а- льные				%
Зарубежные коммерческие структуры	да	нет	тесные	форм а- льные				%
Зарубежные правительственные структуры	да	нет	тесные	форм а- льные				%
Диаспоры/этниче ские группы в других регионах или за рубежом	да	нет	тесные	форм а- льные				
Прочее (какие именно контакты?):								
	да	нет	тесные	форм а- льные				%
	да	нет	тесные	форм				%

		Если ДА, то отметьте, пожалуйста, по каждой из категорий.....				Какой процент контактов в каждой категории изначально были Вашими личными контактами (т.е. другие руководители не имели эти контакты, пока Вы их не установили для Вашей компании?)	
	Наша компания поддерживает отношения с...	Эти отношения тесные (близкие) или формальные?		Количество контактов в неделю (в среднем) с...	Количество часов в неделю (в среднем), затрачиваемое на контакты с...	Общаетесь ли вы вне работы, неформально (т.е. как друзья, приятели)?	
	да	нет	тесные	формальные			
							%

СТРАТЕГИИ РАЗВИТИЯ КОМПАНИИ

Стремление к росту

Мы хотим оценить **стремление к развитию Вашей компании**. Пожалуйста, дайте оценку последующих утверждений применительно к Вашей компании.

- 1 = Совершенно отрицательная оценка
- 2 = В основном отрицательная оценка
- 3 = Скорее отрицательная, чем положительная оценка
- 4 = Нейтральная оценка
- 5 = Скорее положительная, чем отрицательная оценка
- 6 = В основном положительная оценка
- 7 = Абсолютно положительная оценка

<i>Для Вашей компании</i>	Совершенно отрицательная			Абсолютно положительная			
	1	2	3	4	5	6	7
Какова Ваша оценка 25% прироста количества сотрудников в течение пяти лет?							
Какова Ваша оценка 100% прироста количества							

сотрудников в течение пяти лет?	
---------------------------------	--

Каков, по вашему мнению, идеальный размер Вашей компании через пять лет по показателю количества сотрудников? _____ чел.

Каков идеальный размер Вашей компании через пять лет по объему продаж (объему реализации продукции)? _____

Неопределенность внешней среды

В этом вопросе нас интересует оценка неопределенности окружающей среды. Пожалуйста, отметьте, до какой степени вы согласны с каждым из следующих утверждений:

- 1= Совершенно не согласен
- 2= В основном не согласен
- 3= Отчасти не согласен
- 4= Нейтрально: ни согласен, ни не согласен
- 5= Отчасти согласен
- 6= В основном согласен
- 7= Совершенно согласен

	Совершенно не согласен				Совершенно согласен		
	1	2	3	4	5	6	7
Для нашего предприятия важно разрабатывать долгосрочные, ориентированные на конкурентов стратегии	1	2	3	4	5	6	7
Мы регулярно оцениваем основные возможности наших нынешних и потенциальных конкурентов	1	2	3	4	5	6	7
Мы коллективно используем информацию о конкурентах в рамках нашей компании	1	2	3	4	5	6	7
Мы регулярно обмениваемся мнениями между руководителями и сотрудниками по поводу информации о конкурентах	1	2	3	4	5	6	7
Ответственные сотрудники нашей компании обращают мало внимания на стратегии конкурентов	1	2	3	4	5	6	7
Мы обсуждаем стратегии и конкурентные преимущества конкурентов среди руководства нашей компании	1	2	3	4	5	6	7