Social Capital in Networks of Software SME’s: a Relationship Value Perspective

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Abstract

Utilizing theories on social capital, business networks and relationship value, we explore the aspects that provide value in relationships with different actors in the software industry. We take the focal perspective of a software vendor and classify its relationships with actors into three distinctive types by the function in their value-creating network. The study is guided by the premise that some relationships related to supply, distribution or supporting the business are more important than others, and companies thrive to focus on fewer relationships with greater outcomes. In our analysis, based on a qualitative case study approach, we focus on the cognitive and structural aspects of relationships as a basis for social capital creating specific relational value to actors. Our empirical findings indicate that these aspects vary systematically by the types of relationships with actors and networks, thus enabling us to provide some theoretical and managerial conclusions on the management of software companies.

INTRODUCTION

The relationships that firms have with other actors and the embedded knowledge that is at least partly organized for application through social capital are becoming increasingly valuable sources of competitive advantage for firms in a complex and uncertain economy (Hitt and Ireland 2002, Griffith and Harvey 2004, Van Der Merve et al. 2004, Ulaga and Eggert 2005). This notion seems especially valid in the context of small and medium-sized enterprises (SME), in which entrepreneurial networks and knowledge are often the most critical assets a firm can hold. Their importance to the performance and success of the firm has been recognized in a number of studies (Anderson and Jack 2002, Adler and Kwon 2002, Sheth and Parvatiyar 2002, Yli-Renko et al. 2002, Luo et al. 2003).

The relevance of networks in the context of SME depends to a large degree on the size-related resource limitations of the firms (Liao and Welsch 2003). In order to remain competitive and to take advantage of new opportunities in the market, firms need...
resources that they do not currently possess (Hitt and Ireland 2002). Evidence from 
SME and entrepreneurship studies (Yli-Renkkö et al. 2002, Chetty and Campbell-Hunt 
small firms need to be able to effectively utilize resources through relationships in 
social networks. Social capital may provide access to critical resources (Hitt and Ireland 
2002).

However, some relationships are more important or valuable than others, and firms with 
limited resources need to emphasize fewer relationships with greater outcomes (Ford and McDowell 1999, Gadde and Snehota 2000, Leek et al. 2003, Batt and Purchase 
2004, Ritter et al. 2004). The value that resides in firms’ relationships has both tangible 
and intangible aspects, which need to be developed and managed carefully (Baxter and 
Matear 2004). This calls for an evaluation of value in order to distinguish between the 
relevant dimensions and relationships (Batt and Purchase 2004, Ulaga and Eggert 
2005). Although the evaluation of industrial relationships and network literature is 
nothing new, research on relationship value in social relationships and networks has 
been sparse. One of the few contributions to this topic is the recent study by Baxter and 
Matear (2004), in which they make an attempt to get in touch with the issue through a 
quantitative approach in dyadic buyer-seller relationships among manufacturing 
companies in various industries. Based on these findings, they present a set of 
relationship-specific aspects that seem to provide explicit value to the seller.

Our paper addresses this important research issue by taking a qualitative approach to 
analyzing relationship value in the social capital context in one industry, namely, the 
software industry. This specific industry was selected because the software business has 
become one of the key industries in global knowledge and technology intensive 
markets, and it is characterized by large numbers of small and medium-sized firms. 
Thus, our objective is to study social capital in the networks of software SMEs from the 
relationship value perspective. Our formulated research questions are: (1) which aspects 
of social capital in relationships provide value to software vendors; and (2) how does 
social capital as a basis for relationship value differ by the various types of 
relationships? The study is guided by the premise that the aspects of social capital that 
provide relationship value differ systematically according to the type of relationship and 
their functions in the value-creating network.

This paper is organized into six sections. After this brief introduction, we discuss the 
thoretical foundations of the study, specifically, the concept of social capital, and the 
industrial and social perspectives on networks in SME context. In addition, we explore 
the concept of relationship value and its implications to the social capital phenomenon. 
Next, in the third section, we develop our conceptual framework. The fourth section 
describes the research design and methodology of our study, and in the fifth section, we 
present our empirical findings and their interpretations with the help of illustrative 
excerpts from interviews in our case studies. In the final section, we discuss the findings 
and present some limitations, as well as suggest further avenues for research.
This study draws on the literature on social capital, business networks and relationship value. First, we discuss the aspects and definitions of social capital, and after that we link the key aspects of industrial and social networks.

**The Concept of Social Capital**

The increasingly popular concept of social capital is multifaceted and has been defined by a number of researchers in different ways. In their recent review of the relevant literature, Adler and Kwon (2002) came up with as many as 19 different definitions for social capital. The main differences between these definitions depend largely on whether social capital is analyzed within an individual organization or in the relationships between various actors. This view is further supported by Knoke (1999), who defined social capital as the process through which actors create and mobilize their network connections within and between organizations to gain access to other social actors’ resources. Some scholars however have argued that social capital, unlike all other forms of capital, is located not in the actors but in their relations with other actors (Coleman 1990).

In this study, we share the view provided by Nahapiet and Ghoshal (1998), who combine the organization’s external and internal networking dimensions by arguing that social capital is the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships by an individual or social unit. Social capital comprises both the network and the assets that may be mobilized through the network. Described in other words, the nature of social capital both forms the structure and facilitates the operation of networks and their actors (Anderson and Jack 2002). However, social capital has been also claimed to be both the origin and the expression of successful network interactions (Cook and Wills 1999). The structure and operation of networks in this respect largely depends on how various actors become located within networks and what is the relative importance of them in a network (Anderson and Jack 2002, Der Merwe et al. 2004, Omta 2004).

In general, social capital involves the relationships between individuals and organizations that facilitates action and creates value (Adler and Kwon 2002). Anderson and Jack (2002) point out that although social capital was originally described as a relational resource of personal ties, the broader conceptualization presents social capital as sets of resources embedded in relationships. Contingent to this notion, Nathan and Ghoshal (1998) have compressed the elements of social capital into three dimensions, namely the structural, the relational and the cognitive. In their recent study of dyadic buyer-seller relationships, Baxter and Matear (2004) recognize that combining structural capital (i.e. organizational resources such as relationships), and cognitive capital (i.e. human resources, such as the competencies of employees), provides a meaningful way to describe the relational dimension of social capital. The central premise in studying social capital is that social networks of actors have value. Thus, social capital reflects the value of relationships (Nahapiet and Ghoshal 1998) and is the significance of people and organizations (Hitt and Ireland 2002).
Networks in SME context: Bridging Industrial and Social Perspectives

In accordance with the definitions above, social capital involves the relationships between individuals and organizations that facilitates action and creates value (Adler and Kwon 2002). In fact, the views of social capital provided by Nathan and Ghoshal (1998) and Knoke (1999), including resources in networks of actors, is remarkably close to the Actors, Resources and Activities (ARA) framework guiding much of the recent research of the IMP Group (Håkansson and Snehota 1995). A major difference is that the IMP driven research tends to focus strongly on aspects in business networks while the social capital studies also cover individuals’ social relationships. Another difference stems from the social aspects in relationships, whereas the industrial network view of IMP emphasizes organizational resources and shared skills. Social network theory focuses on personal qualities such as person-related competencies, attitudes and mental models (Baxter and Matear 2004).

This is an important extension to the industrial network approach, as several studies suggest that social relationships and personal contacts of entrepreneurs or managers have a crucial role in the development of networks of SMEs (Uzzi 1997, Vanhaverbeke 2001, Hite and Hesterly 2001). The underlying view here is that social networks are often embedded in business networks constituting various profit-oriented or nonprofit-oriented organizational actors. Furthermore, social networks are regarded important for exchanging and transferring information between companies or other organizational actors (Uzzi 1997, Vanhaverbeke 2001). These personal contacts are important in multiple ways, such as providing access to other actor’s resources or knowledge base (Granovetter, 1985). At a personal level, social networks help managers of companies to recognize the knowledge possessed by different actors in the network and to understand the relevance of the application of that information from the business point of view.

Through social networks, managers of companies have the opportunity to update their knowledge in dynamically changing markets, and they are able to sense future developments in the industry (Vanhaverbeke 2001). This involvement in the field increases awareness of emerging possibilities in conducting business and developing innovations. In addition, relationships with various actors need systematic building from the ground-level, but the reputation of a company disseminated through social networks may attract talented employers and possible partner companies. From the business point of view, social networks are especially favorable because of prior knowledge of people and their capabilities. This is mainly due to the trust associated with knowing people personally (Blomqvist 2002). Thus, references and knowing in advance are seen to be key issues when a company is searching or evaluating partners.

Social networks and personal contacts often bring useful information of relevant networks and potential channels that could be used in business development, e.g. in gaining financial support to develop business further. In addition, institutional forums such as industry and trade associations and technological development agencies provide relevant forums for establishing social networks (Powell et al. 1996). Contingent to this social network view, some scholars present the structural holes theory (Burt 1992), according to which social capital provides entrepreneurial opportunities for access to information, timing and control.
Other advantages of social networks are such benefits as risk sharing, getting products to market, as well as transferring knowledge across partners (Powell et al. 1996). Moreover, a variety of sources of information increases the possibility of innovations. Access to specific knowledge and resources, or network position alone, however, does not guarantee innovative results. Powell et al. (1996) claim that a company needs some prior experience of networking to build and utilize its network ties. This notion is in line with the process view of social capital provided by Knoke (1999).

Relationship value – concept and context with social capital

Many scholars define value in monetary terms as the economic, technical, service and social benefits a firm receives in exchange for the price it pays for the product/service offering (Anderson and Narus 1999). Some definitions extend this view and consider the time-perspective of economic value through long-term costs, switching costs and the benefits in exchange relationships (Gadde and Snehota 2000, Hogan 2001, Hibbard et al. 2003). Others see the value of relationships as promoting changes in value (Wimmer and Mandjak 2002, Park et al. 2004), or to emphasize the presumptions of future interaction between firms (Medlin 2004).

Actors and their resources have value in the eyes of other network actors. This value is based largely on how valuable, rare, inimitable and non-substitutable the capabilities of the company are (Eisenhard and Martin 2000). These companies’ so-called VRIN-capabilities improve the negotiation position of an actor. Activities, resources and actors are connected through actor bonds, resource ties and activity links (Håkansson and Snehota 1995). These bonds, ties and links describe the interaction among actors. Ford (2002) also emphasizes the relational value of the relationships. Ford claims that the company’s most valuable assets are its relationships. New value activities are formed mainly by exchanging, combining and creating new resources obtained through networks. Value in relationships, therefore, stems from the reciprocity of actors and combining value activities effectively in network relationships.

When focusing on social capital, entrepreneurs and managers of firms must first evaluate their partner’s resource stocks and the extent to which they have access to the resources the organization needs to facilitate development of competitive advantage. The next step is to evaluate the significance of the relationship and assess the probability of further access to the partner’s resources (Hitt and Ireland 2002, Brass et al. 2004). Thus, assessing relationship value requires consideration of the value concept.

There is an existing body of research focusing on the assessment of relationship value in industrial buyer-seller relationships (Baxter and Matear 2004, Ulaga and Egger 2005). Roedrich et al. (2002), for example, have studied the nature of relationship atmosphere and its links with the value of relationships. We share their view that relationship importance can be considered as synonymous with the value of the relationship to the parties involved. However, much of the emerging research focuses on either the value of customer relationships (Ulaga and Chacour 2001, Roedrich et al. 2002, Ulaga and Egger 2003, Ulaga 2003), or the value of supplier relationships (Gadde and Snehota 2000, Lapierre 2000, Walter et al. 2001).
A more holistic approach analyzes the value of buyer-seller relationships from both the customers’ and suppliers’ perspectives (Hogan 2001, Werani 2001). In general, research lacks studies on relationship value among various types of partners in business networks, especially in the context of underlying social relationships (Payne et al. 2001, Griffith and Harvey 2004). Thus, in this study we focus on the different types of actors in networks, and exclude the more popular customer relationship value perspective in our analysis.

Park et al. (2004) claim that the characteristics of business sectors usually determine which resources become critical in order to create competitive advantage and to add to the firm’s value in dynamically changing industries. They give some examples of characteristics such as high product homogeneity and resource similarity. Despite diverse conceptualizations, there exists some consensus on the fact that value is a multidimensional issue and must be measured as a multi-attribute construct (Ulaga and Chacour 2001, Hogan 2001). Based on conceptual research, Wilson and Jantrania (1994) develop a three-dimensional categorization of relationship value, comprising economic, strategic and behavioral value. Ulaga and Eggert (2003), on the other hand, consider relationship value as consisting of the relationship benefits and relationship sacrifices. A conceptualization supported by several scholars (Anderson et al. 1993, Wilson and Jantrania 1995, Ravald and Grönroos 1996, Gwinner et al. 1998, Anderson and Narus 1999, Läpple 2000, Werani 2001). Thus, higher value in relationships can come either from increasing the benefits or decreasing the sacrifices (Ravald and Grönroos 1996).

Economic exchange relationships derived from transaction cost economics, was first presented by Coase (1937) and further developed by Williamson (1985). While this approach has dominated the theoretical and empirical work on industrial networks, according to Easton and Araujo (1992), relationships may involve economic exchange or they may not. Economic exchange is expected to become relational exchange when individual objectives are realized in conjunction with economic goals (Beekman and Robinson 2004). We see that this relational exchange, often described as social exchange, is a necessity for valuable relationships. Social exchange is located at the present moment, and the expectation of potential economic exchange, as well as expected strategic significance of a relationship may structure economic interaction in the future (Medlin 2004, Baxter and Matear 2004). Thus, mutual benefits are at the heart of exchange (Easton and Araujo 1992) and the value of relationships can be based on multiple dimensions (Ulaga and Eggert 2005), such as both economic value and social value (Gassenheimer et al. 1998). In this study, we believe that social capital is an important dimension in evaluating relationship value. This dimension is further discussed in the following chapter, in which we develop our conceptual framework.

CONSTRUCTION OF A CONCEPTUAL FRAMEWORK

On the basis of our discussion on the theoretical issues, we proceed to present our conceptual framework which is illustrated in Figure 1. First, we consider the aspects of social capital as a basis for providing value in relationships between different actors and networks. We refer to the three aspects drawn
from the literature (Nahapiet and Ghoshal 1998, Anderson and Jack 2002). These aspects are cognitive, structural and relational, of which the relational dimension strongly depends on the others. In addition, as the relational aspect reflects the strategic or relative importance of a relationship to the business, it may be strongly situational, company or business domain-dependent.

![Diagram](Figure_1.png)

**Figure 1. Framework of the study**

In the case of SME’s, industrial networks are often seen to practically equate social networks. In this regard, the social networks of the entrepreneurs are the basis for organizational collaboration (Lechner and Dowling 2003, Brüderl and Preisendorfer 1998, Vanhaverbeke 2001, Hite and Hesterly 2001, Kingsley and Malecki 2004). To fully utilize these relationships and the accumulated social capital, an SME has to learn to master both social and business relationships (Hite and Hesterly 2001, Uzzi 1997).

In their analysis on social capital in networks, Griffith and Harvey (2004) take a holistic view of business networks and identify three types of actors, namely customers, business partners and governing agencies. Furthermore, we see that in addition to individual actors, some relevant entities may, in fact, form strategic networks. It should be noted, however, that in this study, we exclude customers as such and focus on the various types of business partners. Taking these issues into account in our framework, we address the role of social capital on the relationship value for the software vendor. We consider three types of relevant actors by their functions as seen from the focal company’s point of view. The selection of social or organizational actors and networks’ function in a value-creating network as a basis for classifying the types of relationships is supported by Coleman (1990) and Van Der Merwe et al. (2004). Thus, we identify the types of relationships by their function as relationships including partners and networks involved in research and development activities, relationships
including partners and networks involved in marketing and distribution activities, and finally, relationships including partners and networks facilitating and supporting the business of a company. The first and second of them relate more directly to the actual value creation process, including sourcing of components and tools required in software production, as well as distribution and sales, whereas the third refers to the heterogeneous group of actors that do not directly participate in the value creation process, but act in a supportive role from the perspective of a business. It should be noted that actors and networks in all three categories may include individuals, organizational actors and governmental institutions. In addition, from the viewpoint of social capital, these actors can be both internal and external to the company.

Examples of partners and networks in our first category, the relationships involved in research and development activity in software production, include R&D organizations, universities and research laboratories (Lee et al. 2001, Anderson and Jack 2002), or in the words of Lechner and Dowling (2003), knowledge, innovation and technology (KIT) relationships and networks. Relationships involved in marketing and distribution, as well as in after-sales services and maintenance, include distribution and marketing networks, such as advertising agencies, marketing consultancies and various distribution channel members that enable access to new or current markets, and provide new market information and expertise in commercializing a product-service offering (Larson 1991, Lechner and Dowling 2003, Rocks et al. 2005). The third category, relationships involving actors and networks used to facilitate or support a business, includes business associations (Vanhaverbeke 2001) and partners providing financial resources (Birley 1985).

RESEARCH DESIGN AND METHODOLOGY

In our analysis, we take a qualitative research approach for the collection and analysis of primary data. As suggested by Yin (1994), from the perspective of our research questions, we see a research design based on multiple case study methodology comprising structured interviews and observations. This approach provides us with a more comprehensive view of the phenomenon and allows us to explore the complex relationships involved in networking, and the types of partnerships and networks involved.

For the purposes of a comparative cross-case study, we selected eight independent software vendors, using company size and identifiable partner network as the main selection criteria. We see that this number of cases is meaningful for our study, as we seek some comparison in the research issue among different companies, but we do not apply a quantitative approach based on empirical data. The sample included Finnish software companies with between five and 500 employees, described as small and medium-sized enterprises on an international scale. Our field study process ran over a 19-month period between January 2002 and September 2003, during which time we conducted semi-structured interviews with senior management in the selected case companies. Representatives of senior management were selected as the key informants due to the sensitivity and nature of the information we were seeking. Given our research
questions, they were also seen as viable sources of information in the critical evaluation of the representativeness and validity of data. The interviews, all of them conducted in Finnish, were carefully recorded and transcribed. In addition to conducting our intensive field study, we collected an extensive set of secondary data on the companies, comprising articles in magazines, company-provided documents, brochures, bulletins and annual reports, presentation material, and www sites.

EMPIRICAL FINDINGS

In this section we explore the aspects of social capital providing specific relationship value to a software vendor through our empirical data. The identified cognitive and structural aspects as a basis of social capital are analyzed and reported in accordance to the three types of relationships postulated in our framework. We illustrate some of our empirical findings with the help of excerpts from the transcribed interviews, and present a more detailed synthesis of findings as a table in the end of the section.

Relationships Involved in Research and Technology Development

The first type of relationships in our framework, classified according to their function as seen from the software vendor’s perspective, refers to the supply-side of the company: i.e. relationships with those actors and networks that are involved in research and technology development activities, or component and tool sourcing. Typically these actors include individuals and organizations, such as universities and their professors, R&D institutions, component and tool providers, and various technology “gurus”.

Our empirical findings indicate that, in spite of the organizational ties with these actors, in many cases social ties possess a crucial role in the relationships and networks. The following excerpt from our interview illustrates this issue:

"In the key technology development we have close cooperation with an individual [name of a person withheld], who can be characterized by the word technology-guru. He was earlier one of our employees, but currently operates as an independent consultant." (CEO, Case B)

The informant in Case B also emphasized the crucial role of this individual in development activities related to new technological interfaces to implement the company’s offering with the dominant and emerging systems and infrastructures.

Another aspect of social relationships in networks relates to the individuals as important gateways to large R&D institutions or development tool providers. This notion is exemplified through the following words by our informant:

"Due to the emerging nature of digital television content business, we participate into joint research and technology development consortium established by large R&D institute [name withheld]. Especially, our contact
person, [name of a person withheld], in this organization is highly competent in this specific field of expertise." (Director, Case F)

This finding is further supported by the following citation that emphasizes the gateway role of individual in entering large networks of technology-related actors:

"In order to gather insight of the dynamic technology trends, we see relationships with the world’s leading software development tool providers important. We purposefully attempt to find the specific individuals and business units in the organizations to gain access to these large companies [and networks]." (CEO, Case C)

In some cases, the individual providing the access to crucial technology development networks is actually located inside the organization; i.e., is an employee of the software vendor. This was underlined by several of our informants in their comments, of which the following citation has been selected to illustrate the issue:

"We see that choosing the right technology is ultimately important, because we have limited resources to put into the technology development activities. A key engine in bridging us with the Microsoft, Oracle, Linux-related development communities and other essential technology providers is [name withheld], whom we consider the father of our excellence-concept." (Director of a business unit, Case D)

Thus, on the basis of our analysis, essential cognitive aspects providing value in the relationships involved in the research and development activities seem to be the competencies related to technology development and innovative perspectives on the dominant future technologies. Naturally, access to new technologies and standards, many of them private intellectual capital possessed by the partners, is an essential structural aspect providing value in the relationship.

Relationships Involved in Marketing and Distribution

The second type of partners and networks in our framework refers to those actors and networks that are involved in the marketing and distribution activities, as well as in after-sales maintenance and services. Typical examples of these actors include individuals and organizations, value-adding resellers, complementary offering providers, consultants, and various types of service and maintenance providers.

According to the empirical findings derived from our analysis, industry and market related competencies play a major role from the perspective of relationship value. The senior managers in our case companies systematically indicated that these are of critical importance for the software vendor in considering which partners to collaborate with. The following citation is an excellent example of this notion:

As to the possibility of changing our operating service partner, they have gained superior industry know-how during the years in business. That is of critical importance to us. However, this sets also limitations for us through the dependence on one actor, as we do not know other actors in the market.
possessing comparable level of industry know-how. Theoretically, it is possible to change our partner... in practice, I don’t know...” (Head of finance and administration, Case E and Director of Customer Services, Case E)

The dependence of a software vendor on other individuals or organizational actors due to their superior competencies is not crucial only in industry and market related issues. In addition, competencies related to the implementation of projects, understanding of customers business and processes, or, interestingly, even competencies related to maintaining outgoing software systems and solution versions become highly important in relationships involving marketing, distribution and after-sales service providers. The issue of providing service for outgoing solution versions is illustrated by our informant in a case company as follows.

"In the maintenance and services for outgoing systems and solution versions, we utilize consultants. These relationships include individuals who have earlier worked for us a number of years, with specific competencies gained on the older system versions.” (Director of customer services, Case E)

This issue of after-sales service and maintenance providers is further supported by similar comments obtained from interviewees in Case company D. A relevant notion here is also that understanding of the customer’s processes is important throughout the sales process and even afterwards. However, in the context of marketing and distribution partners, our interviewees emphasize that structural aspects such as distribution partner’s market share, visibility in the market segment, or intangible issues (e.g. partners’ well-known brands) form critical criteria for collaboration in terms of mobilizing actors and networks. Furthermore, the informants in Case D stress the competencies related to gathering, filtering and distributing market information especially in new market areas. Putting emphasis on the competencies of consultants and other experienced individuals is obvious when entering these new market areas.

A specific finding in this category of partners and networks relates to complementary offering partners, often cited also as complementary technology partners. In regard to this type of business partners, it seems that the value obtained from relationships with them focuses more on gathering a competitive total product or offering concept to meet the needs of customers, and on the fitting of technologies to a lesser degree:

"In this specific area of business we see that the partnership with [name of a company withheld] is of critical importance to ensure our future business. Although we can replace their technological base with another one, in terms of total offering philosophy this actor is very important to us... it would be very difficult to change this partner.” (VP of corporate planning, Case A)

In sum, our empirical findings suggest that essential cognitive aspects providing value in the relationships involved in the marketing and distribution activities seem to be superior industry and market, marketing, and information delivery related competencies. Special emphasis is placed on understanding the customer’s business and processes, as well as on specific market area related competencies.
Relationships Facilitating and Supporting Business

The third type of partners and networks in our framework refers to those actors and networks that are not an integral part of the value creation process; i.e. they are not involved in the development or distribution of the offering. In turn, these partners typically possess a facilitative and supportive role for the business of a company. Typical examples involve, for example, various types of industry or trade associations, business consultants and “gurus”, and financial actors. A number of these actors can, in fact, be individuals in the entrepreneurs or managers social networks.

On the basis of our data, it seems that these types of relationships turn out to be important in managerial and strategic issues. The interviewees pointed out that this notion strongly relates to the managerial experience of individuals in their social networks. An illustrative example of this issue is forwarded through the following citation:

“In addition to myself, an old friend and a colleague of mine, [name of a person withheld], has a major role in strategic issues related to our business and offering concepts. He has a strong managerial experience and views. He works as a CEO in other company, but we have invited him as a member of our board of directors. ‘(CEO, Case C)

Another interesting finding includes the relationships with “business angels”; i.e. individuals who provide seed or start-up finance to entrepreneurs in return for equity. Business angels may also contribute industry knowledge and contacts that they pass on to entrepreneurs. Their value for the business comes not only from the cognitive aspects (e.g. managerial expertise), but also from structural aspects such as providing a viable gateway to funding opportunities and other business necessities. One of our informants describes the value of business angels in these words:

“Business angels form a very important social network... their relevance and help is especially high in gaining funding opportunities, and in their expertise in personnel management and providing contacts to various important actors. We have invited some of them as a member in the advisory board, but we also utilize their services through commercial strategy and business consulting. ‘(Director, Case F)

Furthermore, the interviewee in the Case F identified expertise in legal issues as an important aspect contributing to the value of relationships with business angels. As to the financial management and auditing issues, managers in both of the above cited case companies emphasized the relevance of social relationships as a basis for their financial administration. For example, in Case C, a competent person in the field acquired through the manager’s social network takes care of all activities related to the company’s financial management, excluding the book-keeping. He is responsible for interaction and communication with the book-keeping agency, thus, possessing the role of a financial manager, although he is not an employee in the company.
The social aspects in these kinds of relationships may overcome the organizational issues in evaluating the relationship value. This notion is exemplified by the interviewee in Case C:

"We have experienced difficulties in the book-keeping and auditing services...now we co-operate with a book-keeping agency of which the image is absolutely not good...earlier we have had several drawbacks with them...however, our current contact person in that specific company is overwhelmingly competent in his area of expertise, and we are happy of him..." (Director, Case F)

To summarize, our empirical findings related to the relationships facilitating and supporting business consist of many kinds of actors. Relevant cognitive aspects in these relationships, as valued by managers of software vendors, include strategic competencies, as well as competencies related to business and marketing management, legal and financial issues, and personnel management. In addition, best practices and experiences are important cognitive aspects. Essential value providing structural aspects derived from these relationships include access to the partners contacts and funding opportunities.

Summary of Findings

Due to the space limitations in this paper we cannot discuss all relevant findings in the form of illustrative excerpts. Therefore, we have combined the identified cognitive and structural aspects, which provide value to relationships of a software vendor, into a table summarizing the findings. The relationships with different types of business partners and networks are classified according to our framework into three distinctive categories on the basis of their function as seen from the focal company perspective of a software vendor. The identified cognitive aspects and structural aspects are then presented in connection to each of the categories (Table 1).

DISCUSSION AND CONCLUSIONS

In the present study we have explored the aspects of social capital that provide value in relationships with different actors and networks from the software vendor's perspective. On the basis of earlier literature on social capital, we divided social capital into cognitive, structural and relational aspects. Our key premise here was that cognitive and structural aspects of social capital may vary according to the type of relationship. Relational dimensions, in turn, refer to the strategic or relative importance of a relationship to an actor or actors. This is situation-dependent and strongly related to other aspects. As a result, we found it meaningful to divide the relationships of a company into three distinctive categories according to their functions in the value-creating network. It should be noted that we left customers out of this study. In the following, we discuss the theoretical contribution of the study and its managerial implications. Then, we briefly consider the limitations of the study and conclude with suggestions for future research.
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<td></td>
<td>• Competencies related to facilitating networks of different actors</td>
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<td>• Competencies related to understanding of customers' business and processes</td>
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<td>• Sufficient human resources to support the growth of business</td>
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<td>• Competencies related to supporting outgoing software system versions</td>
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<td>• Well-known brands</td>
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<td>• Competencies related to specific geography or cultural market area</td>
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<td>• Ongoing operating and maintenance services outside own business systems</td>
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<td>• Employees collaboration skills and competencies</td>
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<tr>
<td>Relationships including partners and networks facilitating and supporting business</td>
<td>Relationship value</td>
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| • Strategic competencies  
• Business and marketing management-related competencies  
• Internationalization-related competencies  
• Business domain-related competencies  
• Information provision-related competencies  
• Competencies related to personnel management  
• Competencies related to legal issues in e.g., contracts, agreements, and IT issues  
• Competencies related to auditing and financial management  
• Mentoring and entrepreneurial motivation  
• Managerial experience and best practices | • Access to partner’s contacts, new customers or customer segments, and partners, e.g., tool-providers  
• Information & knowledge gathered from the market  
• Human resources  
• Brand & image building, publicity  
• Access to funding opportunities  
• Access to partners’ resource pools and social capital |
Theoretical and Managerial Contributions

This research makes several contributions to our theoretical understanding of social capital and relationship value. The findings implicate that cognitive and structural aspects of social capital in relationships can be clearly distinguished from each other. In addition, they seem to vary systematically by the type of relationship.

First, from the focal perspective of a firm, in the relationships involving actors and networks related to the supply-side; i.e. research and development activities, as well as sourcing of components and tools required in software production, the cognitive aspects of social capital providing value to software vendors include competencies in both current technology, as well as in future technology. In addition, such issues as innovativeness, flexibility and adaptability seem to relate to cognitive aspects. Structural aspects providing value, in turn, include access to new technologies and standards, intellectual capital and partner's contacts to tool providers.

Second, in the relationships involving actors and networks related to marketing and distribution of an offering; e.g. distributors and value-added resellers, complementary offering partners and service and maintenance partners, cognitive aspects include the partner's industry know-how. In addition, software vendors seem to value competencies related to understanding customers business and processes, and implementation and support of systems and projects. According to our analysis, essential cognitive competencies relate to information filtering and dissemination, as well as to collaboration skills. In the case of structural aspects, the partner's market share and visibility in the market segment, as well as access to new customers or markets are of crucial importance to software vendors. In addition, new business concepts and access to well-known brands are essential.

Third, in relationships involving actors and networks facilitating and supporting business; i.e. those partners who do not directly contribute to the value-creation process. Cognitive aspects include competencies related to business strategy, marketing and management, as well as internationalization. Our findings suggest that competencies related to legal issues and financial management are of value to software vendors. Structural aspects, in turn, include access to partner's contacts and funding opportunities.

According to our analysis, partner firms as such often seem to be replaceable. but their importance in relationships relates largely to the individuals in these firms. In other words, specific person(s) in partner firms or organizations may be of critical importance to software SME's. A good perceived image of an individual in this relationship can be more important to software vendors than the overall image of a partner firm. Furthermore, our findings indicate that social capital in the form of cognitive aspects related to this individual may provide key drivers for the relationship. Competencies vary from strategic level business competencies to more practical types of competencies. We suggest that the identified competencies have a strong effect on relationship value of actors in networks.
Regarding the managerial implications derived from this study, our findings indicate that individual-level aspects may overcome organizational-level issues in relationship formation, and social networks act as the key facilitator in building relationships with different actors and networks. Managers of companies should understand that person-related competencies have a major effect through social networks in the formation of firms' industrial networks. Thus, social capital embedded in relationships has an important role for the value of actors to a business, and special efforts should be addressed to related management issues.

Limitations and Avenues for Future Research

As to the limitations of the present study, it should be noted that our empirical findings and conclusions are based on qualitative methods through a limited multiple case study conducted in Finland. Thus, we cannot make any generalizations about whether our findings apply to a large number of companies or a different geographic area. In addition, we recognize that the findings might differ in other industries beyond software businesses. On the other hand, these limitations form interesting opportunities for future research. We hope that our research will give future guidelines considering relationship value in the context of social capital.

References


