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Linking social capital to organizational growth

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Abstract

In the current discussion of the intellectual capital, three main themes have been brought up: intangible assets, the dynamic capabilities to create and modify these assets, and the social relationships in which the knowledge processes take place, that is social capital. Within the latter view, knowledge is understood as a socially constructed and shared resource, and the focus is on the characteristics of the social relationships connecting the various actors and on the benefits these bring to the participants. Even though it is widely agreed that knowledge is essentially social by nature and that social capital does matter to the corporate bottom line, there are relatively few previous studies that have empirically examined the impact of social capital on organizational growth. To bridge this gap, the paper empirically examines how social capital residing in both intra-organizational and inter-organizational relationships of firms is related with organizational growth. The results suggest that contrary to the theoretical claims in the existing literature, social capital has only meagre role in promoting organizational growth.

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Introduction

With the dawn of the knowledge era, new determinants of competitive advantage have been proposed. Knowledge has replaced land, labour and financial capital as the main driver of corporate success (e.g. Drucker, 1988). Knowledge and competence management have become important issues in organizations, and intellectual capital is increasingly seen as a deeply strategic factor that should be measured, reported and consciously managed (Schiuma *et al*., 2008). In business studies, a knowledge-based view of the firm has emerged as an extension of the resource-based view (Prahalad & Hamel, 1990; Conner & Prahalad, 1996). According to this view, organizations compete by unique, rare, non-imitable and non-substitutable firm-specific intellectual resources (Barney & Zajac, 1994).

In the current discussion of the intellectual resources of organizations, three main themes have been brought up: intangible assets, firms' competencies and capabilities to create and modify these assets, and the social relationships in which the knowledge processes take place. Each of the approaches implies a different conception of knowledge in organizational contexts. When knowledge is framed as an intangible asset, it is understood as a possession or property of the organization, typically consisting of human, structural and customer capital (e.g. Brooking, 1996; Stewart, 1997; Sveiby, 1997). The capability approach, in contrast, views knowledge as an ongoing, emergent process, and focuses not on the intangible assets *per se* but on the capability to leverage, develop and change them (Teece *et al*., 1997; Eisenhardt & Martin, 2000; Kianto, 2007). Finally, in the relational approach, knowledge is understood as a socially

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Table 1 Three approaches to the determinants of competitive advantage in knowledge-based economy

	Asset approach	*Capability approach*	*Relational approach*
Knowledge understood as	Possession or property of the organization	Ongoing, emergent process	Socially constructed and shared resource
Main interest	Identification and valuation of existing intangibles	Capability to create, develop and modify intangibles	Social relationships and interaction
Focus on	Investments, intellectual property rights, human capital, structural capital, customer/relational capital	Adaptive and self-generative capability of the firm	Characteristics of the social relationships connecting the actors and social capital embedded in them
Research strands	Intellectual capital, Intellectual property rights management, human capital statement	Dynamic capabilities, dynamic intellectual capital, organizational renewal ability	Social capital, inter-organizational networks, communities of practice
Representative authors	Brooking (1996); Stewart (1997); Sveiby (1997)	Leonard-Barton (1995); Teece *et al.* (1997); Eisenhardt & Martin (2000); Ståhle *et al.* (2003)	Brown & Duguid (1991); Lave & Wenger (1991); Nahapiet & Ghoshal (1998); Cohen & Prusak (2001)

constructed and shared resource, and the focus is on the social relationships connecting the various actors and the social capital embedded in them (Brown & Duguid, 1991; Lave & Wenger, 1991; Nahapiet & Ghoshal, 1998; Cohen & Prusak, 2001) (see Table 1). In this paper, we concentrate on the third approach, the influence of social relationships and interaction on organizational success.

Social capital is a concept that deals with how social organization affects economic activity. As the importance of collaboration across functions, competence areas and between organizations has augmented, researchers in business sciences have become increasingly interested in studying issues which have traditionally belonged to the field of social sciences, such as relationships, social networks and interaction. Another factor influencing the current interest in the topic is the emerging understanding that knowledge processes are essentially social by nature. For example, knowledge is typically created, enriched, shared and leveraged in social interaction among several people. Most discussion and decision making occurs in groups, and the social context influences motivation and action of individual organizational members to a significant degree (e.g. Amabile, 1988; Kogut & Zander, 1992; Nonaka & Takeuchi, 1995; Nemeth, 1997).

In fact, social capital is nowadays widely perceived as a necessary precondition of effective organizational behaviour. For example Lesser (2000, p. 16) argues, 'Much as oil serves as the lubricant to ensure a vibrant and powerful engine, social capital acts as the fluid that enables the knowledge-intensive organization'. Social capital has been related to such prominent drivers of competitive advantage as organizational knowledge (Lesser, 2000; Cohen & Prusak, 2001), intellectual capital (Nahapiet & Ghoshal, 1998; McElroy, 2002), communities of practice (Lesser & Prusak, 1999), effective inter-organizational collaboration (Walker *et al.*, 1997; Yli-Renko *et al.*, 2002) and development of virtual communities (Blanchard & Horan, 1998).

In this paper, we address three gaps in the existing research. First, of the three approaches to corporate success in knowledge economy, most prior empirical research has concentrated on the identification and measurement of intangible assets, and description of competencies and capabilities in individual knowledge-intensive firms. Even though it is widely agreed that knowledge is essentially social by nature and that social capital does matter to the corporate bottom line, there are relatively few prior studies that have empirically examined the impact of social capital on value creation. Tsai & Ghoshal (1998), Yli-Renko *et al.* (2001), and Reagans & Zuckermann (2001) examined the relationship of social capital and product development outcomes; Yli-Renko *et al.* (2002) looked at the connection of social capital and internationalization; Gargiulo & Benassi (2000) studied the role of managers' social networks in enabling adaptation; and Tsai (2002) examined the influence of relational structures on knowledge sharing. In this paper, we address this question by examining the relationship of social capital and organizational growth in a sample of 143 Finnish firms. In addition, this paper contributes to the existing literature by looking at both intra-organizational (internal) and inter-organizational (external) social capital, whereas previous studies have tended to examine only either one of them, the study by Yli-Renko *et al.* (2002) being a noteworthy exception. This enables us to draw conclusions on the interplay and relative importance of these different forms of social capital. Finally, social capital deals with 'soft' issues and therefore is quite hard to measure. By reporting our operationalization of the construct we hope to assist future research attempts and contribute to the consolidation of the research area.

Social capital – the interplay of social relationships and economic activity

Social capital consists of the features of social structure that facilitate action (Coleman, 1988; Adler & Kwon, 2000, p. 90). It can be thought of as the wealth or benefit that exists because of an actor's (whether an individual person or an organization) social relationships (Lesser, 2000, p. 4). To put it simply, social capital deals with how whom we know benefits what we do.

The positive consequences of social capital include improved information flows, as well as possibilities for influencing and controlling other actors within the social structure (e.g. Adler & Kwon, 2002, pp. 28–33). Furthermore, social capital produces mutual support and increases trust, and thereby facilitates cooperation and coordination of collective action (Putnam, 1993). It is also said to provide justification and rationale for individual commitment, to enable flexible organization of work, and to facilitate the development of intellectual capital (Nahapiet & Ghoshal, 1998; Leana & Van Buren, 1999, pp. 547–552).

Social capital as a resource bears both similarities and differences with other types of capital. First, like all other forms of capital, it is productive in that it facilitates achievement of certain goals (Coleman, 1988). Second, social capital is a resource that can be consciously built and invested in for the purpose of getting future returns (Adler & Kwon, 2000, p. 93). It is also appropriable, that is a social organization initiated for one purpose can also be used for other purposes, for example a network of friends can function as an efficient source of information about career opportunities (Coleman, 1988). In addition, social capital can function as a substitute or a complementary asset to other types of resources (Adler & Kwon, 2000, p. 94).

Social capital differs from financial capital in that it requires maintenance: interpersonal connections deteriorate unless they are revitalized once in a while. Also, social capital does not depreciate with use, but is likely to be strengthened and developed when it is applied. (Adler & Kwon, 2000, p. 94) Social capital exists in the relations between people, and therefore it is a jointly owned resource, rather than controlled by any one individual or entity (Coleman, 1988). Finally, unlike any other form of capital, social capital can have negative consequences (Putnam, 2000).

The costs of social capital include the resources needed for maintaining relationships and norms. Another cost can be diminished creativity and innovation, as social capital rooted on highly cohesive relations can lead to inertia, group think and dysfunctionally stable power structures (Uzzi, 1997; Leana & Van Buren, 1999, pp. 547–552). Also corruption and in-group favouritism have been cited as possible negative consequences of social capital (Putnam, 2000).

Approaches to and dimensions of social capital

The idea that social structure influences economic activity is not new. On the opposite, it can be found in the works of classics such as Adam Smith, Karl Marx and Max Weber. According to Putnam (2000), during the 20th century at least six scientists coined the concept of social capital unaware of each other's work. The most important roots guiding the contemporary research are usually traced to the French sociologist Pierre Bourdieu and the American sociologist James Coleman.

The construct of social capital has been used in various scientific disciplines and for examining many levels of analytical units from individuals and families to regions and nations, and the field is far from consolidated. Besides the obvious differences across various disciplines, the major dividing factor in studies on social capital is the adopted perspective from which its benefits are viewed (see Table 2).

First, social capital can be looked at from the viewpoint of an individual actor, that is one can adopt the so-called ego-centric approach (Adler & Kwon, 2002). In this case, the focus is on the benefits that an individual actor's relationships bring to this particular actor, and how these benefits influence the actor's relative position compared with other actors within the same social structure. Second, from the socio-centric viewpoint, social capital is understood as a shared resource of a given social aggregate, which facilitates attainment of the mutual goals of all the participants.

These two different approaches to social capital relate to the very roots of social capital research. The ego-centric approach is customarily traced back to the French sociologist Pierre Bourdieu's (1989) work on cultural

Table 2 Ego-centric and socio-centric approaches to social capital

	Ego-centric approach	*Socio-centric approach*
Basic function of social capital	Bridging	Bonding
Level of analysis	Individual	Social unit
Type of good	Private	Public
Benefit to individual	Direct	Indirect
Benefit to collective	Incidental	Direct
Necessary ties	Fragile	Resilient
Main initiator	Pierre Bourdieu	James Coleman
Meta-theoretical background	Conflict theory	Integration theory

Source: Partly based on Leana & Van Buren (1999) and Adler & Kwon (2000, 2002).

capital. Bourdieu was interested in how individuals construct cultural capital or a certain 'taste', and how this taste functions as a tool for social differentiation and inclusion. Another influential representative of the ego-centric variety is the social network theorist Burt (1992, 1997). He has examined the information and power benefits that individuals gain because they control structural holes within their relational network – that is their contacts have no direct links between one another, and consequently the actor can function as a 'bridge' between social groupings that would otherwise be unconnected, and thereby exert control over these parties.

In contrast, on the socio-centric side, Coleman (1988) has been interested in creation of integration in local communities. In his view, tightly knit networks where every actor knows all the others are an ideal soil for social capital – a view that is in direct opposition with that of Burt. According to Coleman, network closure, that is social structure where all actors are directly linked with one another, creates trustworthiness and effective norms. Also Putnam (1993, 1995, 2000) has studied social capital from the socio-centric view, as is obvious from his definition for the term: 'Social capital consists of the features of social organization, such as networks, norms, trust, that facilitate coordination and cooperation for mutual benefit' (Putnam, 1993).

The perspective between these two approaches is fundamentally different: while the first approach views social capital as a 'weapon' to be used for competing with other individuals, the second sees it as something that brings benefits to the whole community. Naturally, also some of the benefits and costs of social capital are contingent on which type of social capital is under investigation. This division into two different perspectives defines the field of social capital as a whole, and grasping it is quite necessary for understanding the literature on the topic. In this paper, we adhere to the socio-centric view, as we are looking at the benefits accruing to the organizations under investigation. We made this choice because with our large sample, it would have been impossible to gather data that would have suited the other type of approach.

Social capital of organizations has been studied both as an intra-organizational phenomenon, as well as a quality of inter-organizational relationships. Intra-organizational social capital addresses with the social structures within the organizational boundaries, whereas inter-organizational social capital addresses the relational qualities of collaborative arrangements among several organizations. However, most prior studies, whether purely theoretical or also empirical, have tended to focus only on either one of these. Nevertheless, Adler & Kwon (2000, p. 21) argue that '[T]he internal and external views [on social capital] are not mutually exclusive. The behaviour of a collective actor such as a firm is influenced both by its external linkages to other firms and institutions and by the fabric of its internal linkages: its capacity for effective action is typically a function of both'. In other words, to get a comprehensive picture of the role social capital plays in producing competitive advantage, both its types need to taken into account. Therefore, in this study we look at both intra-organizational and inter-organizational social capital. Inter-organizational social capital is assessed in the focal organizations' relationship with its most important partner organization.

As is obvious from the previous discussion on the various approaches to social capital, the concept has been given multiple definitions and there are several views on the components of social capital. In this study, we base our discussion and empirical work on the definitions of Nahapiet & Ghoshal (1998) and Lesser (2000), for the reason that their definitions are explicitly aimed at social capital in organizations, and are well suited for examining it both on the intra-organizational and the inter-organizational level. According to Nahapiet & Ghoshal (1998), social capital consists of structural, relational and cognitive dimensions. Similarly, Lesser (2000, pp. 4–7) differentiates three primary dimensions of social capital, namely structure of relationships, interpersonal dynamics and common context and language. In the following section, we look at each of the components of social capital separately in more detail.

Structural dimension of social capital

Social capital resides in social networks, that is clusters of relationships between people. Social networks have been studied in social sciences since Moreno's and Lewin's works in the 1930's (Scott, 1991), but the issue has only started to attract more attention lately, aided especially by the development of opportunities for computerized analyses. The structural dimension of social capital encompasses the relational network of the system under investigation, that is the actors and the configuration of links among them. In this pattern of linkages, researchers are typically interested in, for example, the density and connectivity of the network and frequency of interaction actor (see e.g. Scott, 1991; Wasserman & Faust, 1994).

Ties between actors in the network can be classified as either strong, that is close and frequent, or weak, that is distant and infrequent. The classical work of Granovetter (1973, 1985) demonstrated that these two types of links produce different types of benefits. Strong ties tend to increase trust and diminish opportunism among actors and serve the satisfaction of expressive needs. Weak ties, on the other hand, produce information benefits, as most new knowledge is likely to come from actors who represent different social groupings from the actor's own immediate community.

The two types of social connections and their associated pros and cons can be related to two opposite views on how network structures create social capital. On the one hand, social capital can be seen as arising from the similarity, safety and predictability provided by a closely knit community where all the members are linked by strong ties. This view is connected with the socio-centric approach to social capital explained above, adopted also in this study. On the other hand, weak ties and structural holes provide individual actors with a wider array of information (Burt, 1992; Hansen, 1999) and flexibility (Gargiulo & Benassi, 2000), and thus produce relative advantage to these actors. This view is related with the ego-centric approach to social capital.

Several researchers have assessed the explanatory power of these two approaches in the context of social networks (e.g. Uzzi, 1997; Hansen, 1999; Gargiulo & Benassi, 2000; Johanson, 2001; Reagans & Zuckermann, 2001). Based on their results, they argue that there is an inherent trade-off in the dynamics of social networks: cohesive networks produce safety while structural holes provide flexibility. In other words, both types of social networks have benefits and costs, and as it is impossible to maximize both qualities simultaneously, actors can at best aim at an optimal balance between the two.

Besides the number of links within a social network and the strength of these ties, another important factor of structural social capital in the context of organizations is the ability of the organizational members to locate relevant information sources. This includes finding explicit knowledge in, for example, databases, but more crucially, the ability to find and contact the persons with task-relevant tacit knowledge (Lesser, 2000). In inter-organizational relationships, another essential factor is the extent to which the relationship with the most important partner provides the organization with an access a wider network of business partners or customers (Uzzi, 1997; Yli-Renko *et al.*, 2001).

In sum, these findings lead us to hypothesize that

H1: *Intra-organizational structural social capital increases organizational growth*

H2: *Inter-organizational structural social capital increases organizational growth*

Relational dimension of social capital

For understanding social capital, it is not enough to trace network patterns among the organizational members, or between an organization and its external partners. For example, one can easily imagine a situation where the members of a small firm are in constant and intense interaction with one another, but the nature of these relationships is hostile, prone to conflicts and characterized by lack of trust. In other words, the relational pattern alone does not suffice for painting an adequate picture of social capital, but it needs to be complemented by qualitative characteristics of interaction within these social structures.

First, trust is an essential feature of relationships. Trust can be defined as the willingness to be vulnerable to another party based on the belief that the other is (a) reliable, that is there is consistency between actions and words; (b) open and honest; (c) concerned about well-being of the trusting subject; and (d) competent (Mishra, 1996). The level of trust in a relationship has been shown to critically influence the outcomes of interpersonal, intra-organizational and inter-organizational level collaboration (e.g. Kramer & Tyler, 1996; Blomqvist, 2002; Kianto, forthcoming), and it is often considered one of the primary features of social capital (e.g. Nahapiet & Ghoshal, 1998; Putnam, 2000; Cohen & Prusak, 2001).

Second, the content of values and norms within the social structure influence the interpersonal dynamics to a significant extent. For example, if there is a norm of amplified reciprocity within the social structure, the actors are more likely to behave altruistically, as their deed is likely to be reciprocated in the future (Coleman, 1988; Putnam, 2000). Third, the relational dimension of social capital also includes the closeness and personal nature of relationships. Relations characterized by intimacy, personal quality, informality and mutual identification are likely to yield extensive support to the actors, and thereby facilitate action (e.g. Nahapiet & Ghoshal, 1998; Yli-Renko *et al.*, 2001).

The previous studies lead us to hypothesize as follows:

H3: *Intra-organizational relational social capital increases organizational growth*

H4: *Inter-organizational relational social capital increases organizational growth*

Cognitive dimension of social capital

The third dimension of social capital consists of the shared mental models and narratives that enable effective collaboration (Nahapiet & Ghoshal, 1998; Cohen & Prusak, 2001). Obviously, interaction is easier to the extent that the parties understand each other and share a common context and language. Whereas the content of values and norms belongs to the relational dimension of social capital, the extent to which these are shared across the members of the organization, or the two collaborating organizations, is a feature of the cognitive dimension. In the context of organizations, the shared representations and interpretations should ideally form a strategic alignment throughout the organization, enabling the members to direct their efforts towards collective goals. According to Nahapiet & Ghoshal (1998, p. 244), this dimension of social capital has attracted the least research interest.

However, even though concerning the cognitive dimension of social capital existing research evidence of its impact on organizational performance is lacking, we assume that it has a similar positive impact on organizational growth as the other dimensions of social capital, and posit that

H5: *Intra-organizational cognitive social capital increases organizational growth*

H6: *Inter-organizational cognitive social capital increases organizational growth*

Sample, procedure and measures

The sample of this study was composed by using statistical data provided by regional council of South Karelia, Finland. The goal was to gather data from a representative sample of the largest firms in various industries within the region. The data were gathered with a structured questionnaire sent by mail. The questionnaire was addressed to the CEO of the company, as it is likely that the chief officer has the best overreaching knowledge of the issues queried. The main question categories consisted of company's history and development, the present state of the company, and its future prospects. The full questionnaire is available from the authors. Altogether the questionnaire was answered by 143 companies, which represented different industries. Table 3 shows how the companies were distributed among various industries.

Organizational growth, the dependent variable of the research, was measured by with two indicators. The first of these, *turnover growth*, was measured by asking the respondent to assess the average increase of turnover per year in recent years. The average annual percentage of growth ranged from -10 to $+30$ (M = 6.87, SD = 7.11). The second indicator for organizational growth was *personnel growth*, measured by the average percentual increase of the number of employees in last 5 years. The information was acquired from public datasources and calculated by the researchers. The average annual percentage of growth ranged from -17 to $+25$ (M = 3.35, SD = 7.51).

Social capital was measured with items modified from those reported in previous studies (Tsai & Ghoshal, 1998; Reagans & Zuckermann, 2001; Yli-Renko *et al*., 2001, 2002) and complemented by completely novel items developed by the research team through operationalizing theoretical constructs presented in the previous section of this paper. Multiple items were used to measure each dimension of both external and internal social capital, leading to items addressing altogether six issues (internal structural, relational and cognitive social capital; and external structural, relational and cognitive social capital). The items addressing external social capital were aimed at depicting the amount of social capital in the relationship with the firm's most important business partner (an organization), while items concerning internal social capital were directed at respondent's perception of one's own organization and its members as a whole. All items were assessed on a five-point Likert scale anchored by 'I strongly disagree' and 'I strongly agree'.

The structure of the social capital scales was refined through applying principal component analysis with a varimax rotation. The analysis was conducted separately for the internal and external social capital items. To ensure the appropriateness of the explorative factor analysis, normal pre-analysis checks were conducted. The Bartlett test of sphericity demonstrated a highly significant number of correlations in the correlation matrix ($P<0.000$ for both internal and external social capital items). Both the Kaiser-Meyer-Oklin measures (KMO = 0.822 for internal social capital items and 0.711 for external social capital items) and the individual measures of sampling adequacy in the anti-image correlation matrix indicated the suitability of factor analysis.

Both principal component analyses yielded three-factor solutions. Altogether these six factors represent six dimensions of social capital. For each construct, the item responses were averaged to create a composite measure (except for the factor on external extended structural social capital, which portrays network leverage, consisting of one item only). As can be noted, the analysis did not yield a factor depicting external cognitive social capital. Consequently, Hypothesis 6 could not be addressed with the data set. Furthermore, inspection of the Cronbach alpha coefficients of the composite items demonstrated an exceedingly low value for the composite on internal cognitive social capital ($\alpha = 0.52$), so the dimension was discarded from further analysis. Thus, Hypothesis 5 could not be examined satisfactorily. For the other composites, the internal consistency of the scales was satisfactory. Table 4 presents the items in each factor, factor loadings, internal consistencies and descriptive statistics of the social capital variables.

Table 3 Distribution of sample by industries

Industry	*Number of cases*	*% of sample*
Construction	42	29.4
Metal products and machinery	36	25.2
Logistics	18	12.6
Timber, paper and graphic	15	10.5
Information and communication technologies	11	7.7
Tourism	6	4.2
Energy and environment	4	2.8
Chemistry and plastic	4	2.8
Food and drinks	2	1.4
Textiles and clothing	1	0.7
Other activities	4	2.8
Total	143	100

Results

The posited hypotheses concerning the role of social capital in increasing organizational growth were first examined by correlational analysis. Table 5 presents the correlation results.

As Table 5 demonstrates, the only dimension of social capital that is related with turnover growth is external extended structural capital ($r = 0.292$, $P = 0.002$). Thus Hypotheses 1, 3 and 4 are rejected, whereas Hypothesis 2 finds partial support, as far as the extended nature of inter-organizational structural capital in allowing for reach of new partners and customers is concerned. Personnel growth is not associated with any of the

Table 4 Factors, coefficient alphas and descriptive statistics of social capital scales

Factor	*Items*	*Factor loadings*	*Coefficient alpha (α)*	*M*	*SD*
Intra-organizational social capital					
Internal structural social capital	There are a lot of mutual friendship relations between members of the organization Members of the organization know each other on a personal level Members of the staff do not really interact with each other (reversed)	0.515–0.825	0.71	3.94	0.71
Internal relational social capital	Staff members are well aware of who knows what in the firm and whom to ask for advice about a particular issue Organizational members do not aim to benefit on their colleagues' expense Personnel is open and honest to each other and needed knowledge is not hidden Everyone in the firm trusts that other staff members' competence is adequate for their jobs Everyone in the firm feels that helping colleagues in need is part of everyone's job Staff members help each other even when there is no immediate personal gain from it	0.626–0.775	0.81	4.13	0.55
Inter-organizational social capital					
External structural social capital	Our company has plenty of relationships with the members of our partner organization It is easy to find and access the people and information we need in our partner organization	0.719−0.846	0.40 (inter-item correlation)	4.24	0.67
External relational social capital	Our business partner does not do anything that would harm our firm's goals and interests The competence of our business partner fully matches our hopes and needs We can trust that our business partner will sooner or later reciprocate all our favours Negotions and cooperation with the business partner go smoothly, because we understand each other well and 'speak the same language' with each other	0.587–0.876	0.79	3.89	0.77
External extended structural capital	We get to access new business partners of clients through our business partner	0.867	—	2.97	1.34

Table 5 Correlations of growth and social capital

	1	*2*	*3*	*4*	*5*	*6*	*7*
Turnover growth	1.00						
Personnel growth	0.082	1.00					
Internal structural social capital	−0.115	0.010	1.00				
Internal relational social capital	−0.077	−0.071	0.310***	1.00			
External structural social capital	0.053	0.065	0.275***	0.259**	1.00		
External relational social capital	0.102	0.065	0.025	0.284***	0.258**	1.00	
External extended structural capital	0.292**	−0.010	0.159*	0.103	0.066	0.250**	1.00

Note: *$P<0.10$, **$P<0.01$, ***$P<0.001$.

Table 6 Correlations of growth and social capital in groups of firms belonging and not belonging to inter-organizational networks

		1	*2*	*3*	*4*	*5*	*6*	*7*
Turnover growth	Non-network member	1.00						
	Network member	1.00						
Personnel growth	Non-network member	0.026	1.00					
	Network member	0.135	1.00					
Internal structural social capital	Non-network member	−0.133	0.001	1.00				
	Network member	−0.234	−0.032	1.00				
Internal relational social capital	Non-network member	−0.181*	−0.158*	0.335**	1.00			
	Network member	0.450*	0.269	0.068	1.00			
External structural social capital	Non-network member	0.028	0.004	0.233*	0.269**	1.00		
	Network member	0.012	0.285	0.540*	0.130	1.00		
External relational social capital	Non-network member	0.066	0.046	−0.036	0.268**	0.219**	1.00	
	Network member	0.183	0.088	0.344*	0.346*	0.479*	1.00	
External extended structural capital	Non-network member	0.270**	−0.100	0.100	0.049	0.001	0.256**	1.00
	Network member	−0.025	0.197	0.445*	0.359*	0.409*	0.128	1.00

Note: $*P<0.10$, $**P<0.01$, $***P<0.001$.

variables in the model. Internal structural and relational social capital are intercorrelated, while dimensions of external social capital exhibit several correlations with each other and internal social capital dimensions. Linear regression analysis further demonstrated that when regressed onto turnover growth, external extended structural capital explained 8.5% of the variance in turnover growth ($R^2=0.085$, $F=8.845$, $P=0.004$).

As the finding that social capital had so few direct associations with organizational growth indicators was quite surprising considering the multiple theoretical claims to the contrary, the issue was further explored by taking other variables into account. In the questionnaire, respondents were asked to name any regional inter-organizational *networks* that their company might belong to 106 companies did not belong to any such network while 17 firms did. In the further analyses, we split the data into two groups: those who belonged to such a network and those who did not. Comparison of these two groups yields interesting results, presented in Table 6.

In the studied region, two types of inter-organizational networks existed: subcontracting and maintenance networks of large-scale industries, and networks focusing on cooperation and shared marketing of a branch of an industry. Typically, a networked firm belonged to several networks. When only those firms that belong to some regional inter-organizational network are examined, the relationship between external extended structural capital disappears and the only social capital dimension related with growth is internal relational social capital ($r=0.450$, $P=0.046$). In contrast, for those firms not belonging to an established strong network, internal relational social capital is negatively related with both turnover ($r=-0.181$, $P=0.048$) and personnel growth ($r=-0.158$, $P=0.060$). However the external extended structural capital is strongly associated with turnover growth ($r=0.270$, $P=0.007$), demonstrating that the potential benefits of a close bridging relationship with one specific business partner.

Discussion

The aim of this research was to study the influence of internal and external social capital on organizational growth. However, in contrast with most of the existing literature, the results demonstrated that social capital is *not* directly related to organizational success in all cases.

Of the social capital dimensions examined in this study, only external extended structural social capital, that is the extent to which the key partner relationship allowed the firm to access new partners or customers, was consistently related with organizational growth. Akin to our results, also Yli-Renko *et al.* (2002) found that the extent to which a key customer relationship provided ties to a wider network of other customers strongly enhances organizational performance. This finding indicates that it might be wise to examine social capital not only from the perspective of the direct relationships with external parties, but also from the perspective of what kind of broader access these direct linkages allow.

This finding also speaks for the importance of examining social capital from two complementary perspectives: the bonding and bridging views. In this research, social capital was mainly studied with a bonding type of approach, which views social capital as a characteristic that arises from close and well-established relationships, and produces economic benefits for the whole collective, that is in the case of internal social capital, to the organization as a whole, or in the case of external social capital, to both interacting organizations. It is possible that bridging-type of social capital could be a more important facilitator of value creation for the firms in the sample, consistent with Burt's (1992, 1997) structural hole theory. In fact, the external extended structural social capital was the only bridging type of variable explicitly addressed in our research.

Nevertheless, it seems more likely that any given organization is likely to need both bonding and bridging types of social capital. For example, even though bridging ties provide information benefits and may thereby facilitate creation of new ideas, efficient implementation of these ideas may require bonding type of social capital (see e.g. Kanter, 1998). In other words, an organization may need both types of social capital in its internal as well as external operations. It is also possible that different functions within an organization may require various combinations of these types.

Our finding that for companies not belonging to inter-organizational networks, internal relational social capital is negatively associated with growth, suggests that strong internal ties might lead to inertia, inhibiting the firm from taking an aggressive growth-oriented stance towards its environment, sensing external weak signals and seizing new opportunities for growth. This has been noted in the previous literature as the 'dark side' of social capital (cf. Portes, 1998) For the firms that belong to strong and established inter-organizational networks this tendency is reversed, as they are likely to get enough of external information through the systematic external collaboration channels via the network.

Internal relational social capital was associated with growth only for those firms belonging to an established external network. Thus, it seems that benefiting from social capital requires a systematic context of collaboration, for example in the form of a coordinated, relatively stable and goal-oriented inter-organizational network. If such a structure does not exist, then neither internal nor external social capital is transformed into financial value. Altogether the results demonstrated that there is a potential downside to social capital: if inter-organizational collaboration is conducted on a limited scope or in an unorganised manner, the costs of cultivating social capital may outweigh its benefits.

It can be further hypothesized that the type of social capital that produces the most competitive advantage to a given organization is contingent on the firm's market environment and its strategy. If the firm functions in a stable market environment and aims to efficiently leverage existing knowledge, then bonding social capital, associated with production of close, predictable and harmonious collaboration among relatively similar parties (Coleman, 1988; Putnam, 1995; Fukuyama, 1999), both inside and outside the firm, might be more beneficial. On the other hand, if the market environment requires constant adaptation to rapid non-linear changes, and the firm strategy involves capitalizing on innovations and creation of new knowledge, then the bridging type of social capital, arising from arm's length collaboration among diverse parties, could be more advantageous. Too cohesive intra-firm or inter-firm relations can lead to informational inertia, which hampers innovativeness and renewal capability (Leonard-Barton, 1995; Pöyhönen, 2004; Kianto, 2008) of the firm. Consequently, the influence of social capital on organizational growth seems to be a context-bound phenomenon, which should be studied by taking into account contingency factors such as the resources, strategies and collaborative arrangements of the organization, as well as the external market environment where the competitive advantage is to be produced.

An obvious limitation of our study is that the data was collected from firms all located within a particular region in Finland. Another limitation relates to our measurement model: it is possible that the rather surprising finding that social capital only has few links with growth was caused by missing components in the causal paths examined in this research. Often, it is assumed that social capital influences performance via its influence to some other factors, such as knowledge acquisition (Yli-Renko *et al*., 2001), or combination and exchange of tangible and intangible resources (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998), which then have a direct association with value creation. Perhaps the measurement model of this study neglected some such essential component.

However, it should be noted that this research is one of the few studies empirically addressing the impact of both internal and external social capital on objectively measured firm-level performance variables. The results thus are free from the common method bias, that is the potential inflation of correlations between measures assessed via the same method, which often is cited as a major concern in social scientific research (e.g. Campbell, 1982). Thus, its contribution is to examine relation of several social capital dimensions with objectively assessed growth. We also hope that reporting our measures will encourage future studies to continue developing increasingly valid metrics for social capital and test them in relation to wider sets of antecedents and outcomes in various contexts.

From a managerial point of view, the results of the research speak for the importance of tuning the social capital of the firm to contextual requirements. Forging and maintaining social capital is costly, and furthermore, sometimes close and trustful relationships and common mindsets, both within the firm as well as in inter-firm collaboration, can in fact have negative consequences for organizational success. Therefore, it is necessary to integrate the management of intra-firm and inter-firm relations with the general strategic management and value creation logic of the company.

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