Corporate Social Capital as a Competitive Advantage in Determining a Company's Capacity to Recognize Trends and Innovation Opportunities

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Publication Summary

Embedded in a globalized environment characterized by an increasing expansion and density of economic and social interactions, recognizing and improving a company's capacity to recognize trends early and to innovate has become a critical success factor. A better understanding and management of a company's innovation capacity implies the in-depth analysis of its conditions and drivers, as well as the identification of those internal and external actors and relationships with the highest potential for network-related innovation effects. Based upon an integral corporate value concept encompassing corporate financial, human and social capital, the purpose of this paper is to provide a conceptual framework which gives reason for adding the construct of social capital to the field of marketing strategy.

Keywords: Corporate Value, Innovation Management, Human and Social Capital

Introduction

During recent years, the topic of social capital in general and in the context of organizations has gained growing interest in the strategic management literature. Existing studies (e.g., Adler & Kwon 2002; Nahapiet & Ghoshal 1998; Tsai 2000; Tsai & Ghoshal 1998) point out the fact that social capital is positively related to a company's long-term competitive advantages and is an essential element of corporate value contributing to corporate success in a number of important organizational activities like inter-unit and inter-firm resource exchange, the creation of intellectual capital, inter-firm learning, supplier relationships, product innovation and entrepreneurship.

In global markets, the development and more effective, efficient and realistic management of social capital have gained special attention. To access adequate resources (e.g., information, technology, knowledge, access to distribution networks, etc.) and compete effectively in a globalized environment, companies are embedded in networks of business and social relationships that operate across national borders. With an increasing expansion and density of these local and global economic and social relations, the dynamic interplay of international and global aspects of social capital becomes critical on a global level.

Embedded in a networked world characterized by compression of time and space where survival is particularly connected with a company's capacity to sustainably out-learn and out-innovate its competitors (McElroy 2001), the production and integration of new knowledge as well as the recognition and improvement of the rate and quality of innovation capacity and innovation output is of particular importance. Apart from financial and human resources, knowledge and skills, a company's natural ability to self-organize around innovation on an overall enterprise level – the social capacity to innovate in a company – should also be seen as a significant source of competitive advantage.

To date, only little research has addressed the topic of developing an integrated view of a company's innovation capacity, especially incorporating the concept of social capital. To advance existing knowledge in the field of social capital, it might be an appropriate approach to start with the development of a theory based framework which contains basic hypotheses concerning the impact of relevant factors of social capital as well as human and financial capital on establishing high innovation capacity. Such a framework might, of course, be a little generic or abstract in structure and content. However, it is a good starting point to make sure that further conceptualization und especially operationalization will be appropriate. In this respect, the framework presented in this paper is only a first step of our future research trying to conceptualize the key dimensions of social capital as well as human capital, and to identify relevant impacts of these dimensions on the innovation capacity of (multinational) companies.

This paper is structured into three main sections. First, considering all different aspects of corporate capital to the company's success, this paper aims at developing a multi-dimensional conceptualization of corporate value which encompasses corporate financial, human and social capital. Our conceptual model leads us to believe that human and social capital are the major determinants of innovation capacity. Second, two sets of propositions are developed: the first deriving from the perspective that knowledge and skills of individuals within the company impact innovation capacity (human capital), and the second deriving from the perspective that innovation capacity is tied to the characteristics of the social network in which the company is embedded (social capital). Third, the model and propositions are discussed with reference to their managerial and research implications.

Construct Definition and Literature Review: Components of Corporate Value

A comprehensive understanding of corporate value integrates all relevant actual and potential value sources and effects to the company's success into one single model. In our socially constituted world it is worthwhile to go beyond the traditional economic view of the relationship between capital and firm performance. For the purposes of this paper, regarding all prospective and directly attributable in- and outpayments, corporate value can be – according to Bourdieu's (1986) capital theory proposing economic, cultural and social capital – segmented into three highly interrelated forms of capital: financial, human and social. Each form is, at some point, convertible into money.

Corporate Financial Capital:

Corporate Financial Capital is immediately and directly convertible into money. It addresses direct monetary aspects and man-made aids to production owned by the company such as turnover, revenue, machines, land and equipment.

Corporate Human Capital:

Including indirect-monetary contributions from individuals within the company, the Corporate Human Capital focuses on the value of personality, knowledge, skills, experiences and abilities possessed by the company through its individual members.

Corporate Social Capital:

Social Capital – an umbrella concept used in a variety of disciplines to describe resources embedded within social networks (Adler & Kwon 2002) – can be defined as *(a)* "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu 1985, p. 248), *(b)* "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or an social unit" (Nahapiet & Ghoshal 1998, p. 243), *(c)* "the capacity of individuals to employ (scarce) resources such as information, contacts and money because they are participants and members in social networks" (Faist 1995, p. 4), or *(d)* "the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them" (Fukuyama 1997). Referring "to friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital" (Burt 1992, p. 9) and "to connections among individuals, social networks and the

norms of reciprocity and trustworthiness that arise from them" (Putnam 2000, p. 19), social capital is "a product of embeddedness" (Portes 1995, p. 13), which "inheres in the structure of relations between persons and among persons" (Coleman 1990, p. 302), and whose "effects flow from the information, influence, and solidarity it makes available to the actor" (Adler & Kwon 2002, p. 23).

With reference to organizations and their members, to a combination of firm specific and personal relations, corporate social capital can be defined as "the set of resources, tangible or virtual, that accrue to a corporate player through the player's social relationships, facilitating the attainment of goals" (Gabbay & Leenders 1999, p. 3). As a unique organizational resource, that is difficult to acquire and imperfectly tradable, corporate social capital is strongly associated to network structure and the value inherent in long-term relationships between individual employees, teams, departments and companies. Regarding multinational firms, corporate social capital is vitally important since they have to effectively integrate internal business units across geographic (e.g., country) boundaries, as well as manage relationships within a large external network of firms (Bartlett & Ghoshal 1998).

Generally spoken, embedded within a profound understanding of corporate value and referring to the connections that exist within and outside of the company on individual as well as on organizational level, corporate social capital encompasses both, the existence of a durable network of more or less institutionalized relationships as well as the sum of actual and potential resources that might be available through and derive from that network.

Conceptualization and Propositions:

Corporate Human and Social Capital as determinants of Innovation Capacity

Economic survival in a globally networked world increasingly depends upon the company's "widespread innovative capacity" (Bellandi 1989) and a continuous stream of new innovations, new patents, new ideas, new insights, and new bases of competitive advantage (McElroy 2001).

A company's capacity to innovate – its ability to perceive opportunities and use internal and external information to develop or adopt innovative products or production processes – is undoubtedly based on a company's financial (e.g., money, equipment, materials) and human resources (e.g., employees' knowledge, education level, attitudes and values, innovativeness and creativity). However, as innovations often require a new set of resources not employed in

the current production, the capacity to innovate also depends on the nature of the social environment in which a company is embedded. In our knowledge-based economy, innovations are no longer conceived as a specific result of individual actions, but more as an interactive social process of learning and exchange involving relationships between firms with different actors (Kline & Rosenberg 1986). Since interdependence between actors generates an innovative system or an innovation cluster (e.g., Edquist 1997; Landry & Amara 1988; Acs 2000; Porter 1999; Porter 2000), the local and global context of a company exerts a significant influence on the nature and extent of innovative activities (Gertler et al. 1998, 2000).

In view of the fact that diverse forms of social capital influence the innovation capacity of a company, corporate social capital can be – beyond corporate financial and human capital dimensions – considered as a necessary precondition (or antecedent) to a company's collective capacity to collaborate around the production of new knowledge and all forms of innovation. Following a more interactionist instead of a conventional individualistic perspective (Schneider 1983) acknowledging the importance of social relationships and the social capital therein, "the combination of high-quality human capital and high-quality social capital is key to competitive advantage in the knowledge economy" (Lengnick-Hall & Lengnick-Hall 2003, p. 62).

Considering this background, it is important to identify, manage and control the influence of corporate human capital dimensions (i.e., employees' capacity to acquire and apply effectively new knowledge, capabilities and skills) as well as social capital dimensions (i.e., the quality of social relationships – enabling employees to communicate useful knowledge) on a company's innovation capacity. The research question is: Do human and social capital determine innovation in multinational companies, and if so, to what extent?

Figure 1 shows the proposed conceptual model to investigate how far the capacity to innovate in a company is – apart from financial conditions – more closely tied to human or social capital dimensions.

----------*Insert Figure 1 about here*----------

Human Capital Dimensions

Focused on knowledge and innovation management, much research has concentrated on human resources, personal characteristics and development (e.g., Eagly & Chaiken 1993; Allen et al. 1992; Mayo & Marks 1990; Bearden et al. 1986; Hirschman 1980), proposing that contemporary firm's core competencies lie more in its intellectual base than its hard assets (Quinn 1992). The intellectual base of a company "represents a valuable resource and a capability for action based on knowledge and knowing" (Nahapiet & Ghoshal 1998, p. 245)

Aside from the dimensions we will concentrate on here, aspects like education level, attitudes, values, creativity, professional experiences and objectives, knowledge sharing potential willingness, cross-functional team working skills and collaborative spirit (Robertson & O'Malley Hammersley 2000; Swart & Kinnie 2003) are important to mention.

Expertise and Knowledge:

Expertise and knowledge in the forms of employees' know-what and know-how (Quinn 1992), are important presuppositions of a company's capacity to innovate and the most valuable assets of a 21st century company. Forming the basis for individual and organizational competence (Hayek 1945; Penrose 1959), knowledge includes various elements: (a) facts, truths or principles, (b) ideas validated by various tests, (c) findings of research, as well as (d) understandings derived from experience (Merton 1973; Souder & Moenaert 1992).

In this context it is important to mention, that innovation may arise from internal or external sources of knowledge (Dogson 1991) and a company's own knowledge is a function of the knowledge that it has access to (Orr 1990). While employees can be viewed as "the ultimate knowledge creators and bearers" (Oltra 2003, p. 2), knowledge is a dynamic and complex system that changes as it interacts with the environment and can be defined as "a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers" (Davenport & Prusak 1998, p.5). Since failures often occur when individual actors may lack knowledge, or a project team does not include people with the required expertise in problem solving (Weick & Roberts 1993), innovation can only result from an effective knowledge management processes (Rosemberg 1982). A company should realize the range as well as the boundaries of its internal knowledge, recognize what is not known within its own field and to whom it can turn for the certain expertise that is needed (Pinkus et al. 1997).

This leads us to our first proposition,

P_{1a}: Expertise and knowledge in terms of internal and external know-what and know-how are important preconditions of a company's capacity to innovate.

Motivation and Involvement:

The confidence to create ideas that are novel and useful, the willingness to adopt the sense of the need to change in the workplace and the ability to implement those ideas to develop new products, services or processes as well as an innovative organizational culture that is supportive of these efforts are core contributors to creative outputs. Employee commitment, job satisfaction and the level of involvement within a particular issue area may increase the motivation to innovate or to disseminate information about a "product," as well as reduce the cognitive costs associated with processing new information, allowing for a greater accumulation of knowledge over time (Bloch & Richins 1983). In fact, even employees with exceptional talent and know-how will not be able to develop potential without the adequate motivation (Twining 1991).

Consequently,

P_{1b}: The employee's individual motivation to innovate and the level of involvement within the innovation process determine the innovation capacity of a company.

Innovativeness:

Employees with a certain personal characteristic known as "innovativeness", the predisposition to engage in creativity and experimentation through the introduction of new products, services as well as new processes, are among the first to support innovative efforts and new products. When they feel safe to innovate and perceive that their innovativeness contributes to the growth and profit of the company, employees are more likely to act innovatively and to experiment with new combinations of resources (Trice & Beyer 1993). Providing a forum that fosters employee innovativeness as the ability to create new solutions and not just relying on existing practices and models creates a basis for differentiation and competitive advantage (Zahra 1991). To enhance the innovativeness of employees, organizations should provide opportunities for development and training that facilitate

creative decision-making, promote creativity and thus innovation (Sherman 1984; Cornwall & Perlman 1990).

Therefore, our next proposition follows:

> **P_{1c}:** Employee innovativeness and the willingness to support innovative efforts and new products contribute to a company's capacity to innovate.

Social Capital Dimensions

While the first set of propositions addresses attributes of corporate human capital that contribute to innovation capacity, the second set demonstrates that corporate social capital plays a key role in determining the capacity to innovate in a company.

In the interest of moving towards measuring corporate social capital, it is useful to distinguish the sources of social capital along three dimensions: *structural* (e.g., network links), *relational* (e.g., trust) and *cognitive* (e.g., shared goals, shared paradigms) (Nahapiet & Ghoshal 1998; Tsai & Ghoshal 1998; Bourdieu 1986). Each having two common characteristics (Coleman 1990), as they constitute some aspect of the social structure, and facilitate the actions of individuals or organizations within the structure, the three dimensions are highly interrelated: Through social interaction (structural), individuals or groups develop trusting relationships (relational) and common goals and values (cognitive) (Tsai & Ghoshal 1998).

The Structural Dimension of Social Capital:

Viewing social relationships through the lenses of social network theorists (e.g., Burt 1992; Granovetter 1973; Hansen 1999; Wasserman & Faust 1994) the structural dimension of social capital deals with the pattern, configuration, and purpose of social interactions. Analyzing cliques, communication roles (e.g., liaisons, bridges, isolates), and structural indexes (e.g., connectedness, integration, diversity, openness) (Rogers & Kincaid 1981), structural capital considers the existence of connections between actors, the proximity of connections to the major powerful players, the diversity of the connections and the network position of an actor relative to other network players and investigates how the overall network configuration assists or hinders the flow of resources within the network.

The structural properties of social relationships such as centrality and betweenness are crucial in generating ideas and in coordinating expert knowledge in social networks and play an

important role on how different actors can access resources from within the network. The position of a network actor or rather a business unit in a network significantly influences the capacity to innovate in this organization (Tsai 2001), companies with a central position in collaboration networks have a higher output of patents than less central firms (Powell et al. 1999). The availability of more potential exchange partners generate benefits deriving from the access to useful knowledge and to valuable and early information (Nahapiet & Ghoshal 1998). The number of network relations – so called network ties – influences and is proportional to the ability to acquire relevant information (Tsai & Ghoshal 1998).

Thus, the structure of social networks and the access to potential exchange partners can be regarded as important sources of new, external knowledge (Inkpen & Dinur 1998) and valuable channels for information benefits and knowledge diffusion and transformation, since knowledge is more easily transferred among networks partners than through market mechanisms (Shenkar & Li 1999).

Indicating an individual actor's position within a network of relations, the structural dimension of social capital refers to the formation and the *structure of ties* between individuals in terms of density, connectivity or hierarchy (Burt 1992, 1997; Coleman 1988; Granovetter 1973; Hansen 1999). Structurally categorized as strong or weak, the strength of a tie (Granovetter 1973) is characterized by a combination of the duration, emotional intensity, intimacy, and reciprocity of interactions. Networks of largely strong ties – established through intense and repeated interaction – enable effective and efficient communication and are important for sharing and transferring more complex information and knowledge that is sticky by nature, i.e. highly context dependent, confidential or complex (Hansen 1999; Larson 1992; Levin et al. 2002). However, due to their clique-like structure, strong tie networks may suffer from redundant contacts and may decrease innovativeness because of rigidity caused by excessive amounts of normative cohesiveness. In contrast, weak ties, bridging structural holes (Burt 1992) between disparate social units, enable accessing a diverse range of other actors in terms of actor characteristics, available information, and perceptual scope (Burt 1997). From the novel and non-redundant information and opportunities that weak ties make available, value can be derived (BarNir & Smith 2002).

The existence of strong and weak ties impacts the potential innovation capacity of a company. Rather than being at the centre of a network, opinion brokers (Burt 1999) are located at the edge of several heterogeneous networks and play a key role in the flow of information because of existing social capital. Since they have relationships to members outside of the

group that other group members lack, they span "structural holes" and possess unique access to potentially valuable information. They can act as a bridge between different networks, which gives them their 'Social Capital' and status as a local missionary or maybe a role model within the group. Looking for ideas outside their immediate community (Rogers 1995), opinion brokers activate their bridging weak ties to well-connected actors who are perceived to have some expertise (Bansal & Voyer 2000; Gatignon & Robertson 1986), receive potentially valuable, new information and then influence other strong tie-related actors (Weimann 1982). Consequently, having such a central brokering position enables the access to second-order resources, i.e. the resources that are not one's own but that are embedded in and mobilizable through social networks, like the knowledge of one's friends (Bourdieu 1980; Lin 1999), and the combination of these resources into new entrepreneurial activities (Burt 1992).

This leads us to our next proposition,

> **P_{2a}:** The structural properties of social capital – the availability of potential exchange partners and the access to external expert knowledge – represent the *opportunity* to share information and knowledge and are important preconditions of a company's capacity to innovate.

The Relational Dimension of Social Capital:

Whereas the structural dimension of social capital refers to the presence or absence of relations between actors, yet, cannot fully describe the ability of an individual or organization to be able to access social resources, the relational source dimension of social capital focuses on the quality and content, rather than the structure, of social relationships. Apart from the access to potential exchange partners and resources, innovations require relational aspects such as openness, willingness to take risks, and trust, which is built up over years of informal interactions between company members (Axelrod 1984; Krackhardt 1992; Oliver 1997; von Hippel 1988).

Relational social capital, as prerequisite for the formation of effective and stable relationships, encompasses the emotional aspects of relationships (Naude & Buttle 2000) – group process phenomenon like shared norms and values, interpersonal obligations and expectations, reciprocal obligation, mutual identification, commitment, understanding, honesty and trust which organizations or groups of individuals have developed with each other through a history of social interactions (Nahapiet & Ghoshal 1998).

The relational dimension of social capital, as measured by *trust*, trustworthiness and commitment, allows actors to determine the amount of capital and level of risk when exchanging resources and will increase strength of preference for a particular exchange partner (Gwinner et al. 1998). Trust as "the willingness to be vulnerable to the actions of another party" (Mayer et al. 1995, p. 712), and trustworthiness as "the quality of the trusted party that makes the trustor willing to be vulnerable" (Levin et al. 2002) are among the most important facets of relational social capital. The existence of high trust in a relationship is proportional to the ability to freely share information, to take risks and innovate and to acquire information from this tie as well as to the credibility of information (Fukuyama 1995; Ring & van de Ven 1992, 1994) and produces certain outcomes such as cooperation and sensitive information exchange (Mayer & Davis 1999). Without high levels of trust and mutual solidarity, individuals or organizations are not going to establish and maintain interorganizational relations or give other actors access to useful knowledge or confidential information (Gherardi & Masiero 1990; Krackhardt 1992; Oliver 1997; Staber 1994; van de Meer & Calori 1989). Shared trust (or lack of it) influences the extent of information exchanged, the scope of search for and the commitment of managers to implement solutions and is considered as a significant determinant of managerial effectiveness (Zand 1972).

According to the closeness and the quality of a firm's inter-organizational linkages, the *tie strength* has been found to be one of the most significant factors to explain the influence of network relations, their overall success and the value created (Ghoshal & Bartlett 1990). Research has examined the effects of the strength of ties on knowledge transfer and innovation (e.g., Hansen 1999; Uzzi 1996, 1997, 1999). Stronger ties may bring increased trust, prospective reciprocity, and commitment (Krackhardt & Stern 1988; Uzzi 1997; Gabbay 1997; Gabbay & Stein 1999) and are more likely to be activated than weak ties as sources of information and are perceived as more credible (Rogers 1995) and more influential (Brown & Reingen 1987; Reingen & Kernan 1986; Bansal & Voyer 2000). Further, stronger ties are typically more easily available (Granovetter 1982) and favor mutual interaction and feedback loops between the sender and the recipient (Leonard-Barton 1993) – an important aspect in the process of innovation (Kline & Rosenberg 1986; Rothwell 1992).

However, weak-tie information sources – not being limited to the social circle of the individual or organization – are more numerous, promote generation of new ideas and opportunities and offer varied and better information (Duhan et al. 1997). Moreover, weak ties may bring information on distinct social circles (Granovetter 1973), are more likely than

strong ties to facilitate knowledge and referral flows (Brown & Reingen 1987), and play a crucial role in the diffusion of innovations (Rogers 1995).

In conclusion, in situations where information should circulate at a high speed and a high degree of trust, confidence and intimacy is required, strong tie-sources will be more influential and reveal rich exchanges of information and proprietary "know-how". However, when information relate to generation of new ideas and opportunities, weak tie-sources with a wide-ranging knowledge level are likely to have more influence.

Therefore, we propose that:

> **P_{2b}:** The relational properties of social capital – the level of trust and the strength of preference for a particular exchange partner – represent the *willingness and motivation* to share information and knowledge and determine a company's innovation capacity.

The Cognitive Dimension of Social Capital:

The cognitive dimension of social capital – one of the least discussed dimensions when referring to social capital (Nahapiet & Ghoshal 1998) – addresses the need for a common understanding or "vocabulary" to build social capital. Related to the relational dimension, it will increase the strength of preference for a potential exchange partner, since similarity (i.e., shared norms and values) tends to influence relationships (Cialdini 1993).

Through its *shared meanings, language, symbols and codes*, the cognitive dimension facilitates the sharing of information and knowledge (Weber & Camerer 2003), which is necessarily important since innovation process involves the exchange of codified and tacit knowledge (e.g., Patel & Pavitt 1994; Winter 1987). The existence of shared language and codes is vital for efficient knowledge transfer and integration among individuals or groups and act as vehicles for integrating individual understandings and experiences. Thus, only if they share a common language, knowledge can be transferred and different companies can interact and gain access to people and their information about the other company.

While the cognitive dimension of social capital does not have any affect on the overall resource exchange and combination of resources (Tsai & Ghoshal 1998), "organization members who share a vision will be more likely to become partners sharing or exchanging their resources" (Tsai & Ghoshal 1998, p. 467). The cognitive dimension allows network actors to determine common patterns of behavior, develop expectations on what future

patterns of behavior will occur and understand when new knowledge or information is brought into the network, to learn from new information and develop new knowledge which can then be transmitted through the network. Cognitive social capital is vitally important to multinational companies to integrate business units operating in multiple and diverse country markets and cultures – by shared values, goals, a mutual understanding and global vision, they can be bound together, solve possible bottlenecks, and fine-tune their decision-making.

Overall, the cognitive dimension of social capital describes the ability of network actors to create understandings of network behavior and facilitates the flow of valuable information and knowledge.

Consequently, the following proposition emerges:

P_{2c}: The cognitive properties of social capital – a common understanding and the level of shared norms, values and beliefs – represent the *ability* to share information and knowledge and affect the innovation capacity of a company.

Even though we have just made a very first step to conceptualize innovation capacity in view of identifying corporate value as an overall measure to focus managerial planning, our integrative framework sketched in figure 1 seems to be worth focusing in further research as well as in managerial practice.

Conclusion

Further Research Steps:

Focusing on the link between individual attributes and social resources, this paper has examined the role of social context in determining a company's capacity to innovate. We suggest that innovation capacity is rooted in the presence of a certain set of individual characteristics and in the social environment in which a (multinational) company is embedded.

Of course, our model is only a first step and should be further developed in different ways. First, the different propositions sketched above will have to be elaborated more into depth. Second, in the next step of developing hypotheses, we should as well emphasize the interplay between the different variables. This will have to lead to a proper causal modeling of effects

between the dimensions of human and social capital and their impact on a company's capacity to innovate. In this context we will also have to add the conceptualization of different forms of innovation capacity und their explanation in view of human and social capital impacts. As important the generation of such an extended model might be, we believe that first of all, we should try to empirically find out the relevancy of different variables measuring human and social capital to portray high corporate value in a more aggregated sense. Against this background we might concentrate a more advanced causal modeling on important variables. Such a procedure seems to be important insofar as the amount of variables and relationships between them is so high that one would run the risk "getting lost in complexity".

Preparing the empirical test of our model the dimensions of human and social capital need to be operationalized. In some cases we already can fall back on already existing and somewhat tested measures, in other cases we will have to start from scratch. Especially in view of the different dimensions of social capital it might be worth starting with exploratory interviews with innovative local and global network members that are likely to yield further items. Further steps of the empirical work have, of course, to meet the state of the art of the use of sophisticated multivariate methods. For example, it might be useful to compare different approaches of formative and reflexive construct development and testing (Diamantopoulos & Winklhofer 2001; Jarvis et al. 2003), and, due to the fact that we cannot assume linear relationships between the different variables, we should also draw on nonlinear causal modeling (cf. also using neural networks).

Despite the limitations and necessary steps in future research, the primary contribution of our framework lies in developing and explaining a model of innovation capacity integrating the concept of social capital. The social capital dimensions could be used as a basis to develop a more robust measurement instrument to measure and manage a company's capacity to innovate.

Managerial Implications:

Having more robust measures of innovation capacity is of course as well a key for managerial practice. In view of our propositions concerning the impact of social capital on the company's innovation capacity, managers might discover the existence and relevancy of internal and external information, knowledge and other resources in their local and global business network which are either already available or easily accessible. Overall, taking the interplay between human and social capital into account our framework already might lead to the

opportunity of a better understanding of the conditions and drivers of a company's capacity to innovate and to come to a broadened view of corporate value. This will of course enlarge the efficiency of identifying and selecting different employee groups and of encouraging appropriate key employees or business units to leverage and use their innovation potentials.

Bibliography

Acs, Z. (2000): Regional Innovation, Knowledge and Global Change, New York, Printer.

Adler, P. S./Kwon, S.-W. (2002): Social Capital: Prospects for a New Concept, in: Academy of Management Review, 27, 17-40.

Allen, C.T./Machleit, K.A./Kleine, S.S. (1992): A comparison of attitudes and emotions as predictors of behavior at diverse levels of behavioral experience, in: Journal of Consumer Research, Vol. 18 pp.493-504.

Axelrod, R. M. (1984): The evolution of cooperation. New York, NY: Basic Books.

Bansal, H. S./Voyer, P. A. (2000): Word-of-Mouth Processes Within a Services Purchase Decision Context, in: Journal of Service Research, 3 (2), 166-177.

BarNir, A./Smith, K. (2002): Interfirm Alliances in the Small Business: The Role of Social Networks, in: Journal of Small Business Management, 40 (3), 219-232.

Bartlett, C./Ghoshal, S. (1998): Managing Across Borders: The Transnational Solution. Harvard Business School Press.

Bearden, W.O./Calcich, S.E./Netemeyer, R.G./Teel, J.E. (1986): An exploratory investigation of consumer innovativeness and interpersonal influences, in: Lutz, R.J (Eds), Advances in Consumer Research, Association for Consumer Research, Provo, UT, Vol. 13.

Bellandi, M. (1989): Capacita` innovativa diffusa e sistemi locali di imprese. In: Becattini, G. (Ed.), Modelli Locali di Sviluppo. Il Mulino, Bologna.

Bloch, Peter H./Richins, M. L. (1983): A Theoretical Model for the Study of Product Importance Perceptions, in: Journal of Marketing 47 (Summer): 69–81.

Brown, J. J./Reingen P. H. (1987): Social Ties and Word-of-Mouth Referral Behavior, in: Journal of Consumer Research, 14 (3), 350-362.

Bourdieu, P. (1980): Le capital social: Notes provisoires. Actes de la Recherche en Sciences Sociales 31, 2-3.

Bourdieu, P. (1985): Sozialer Raum und ‚Klassen'. Zwei Vorlesungen. Frankfurt a. M..

Bourdieu, P. (1986): The forms of capital, in: Richardson, J. G. (Ed.) Handbook for Theory and Research for the Sociology of Education, 241-258.

Burt, R. S. (1992): Structural holes: The social structure of competition, Cambridge, Mass.: Harvard University Press.

Burt, R. S. (1997): The Contingent Value of Social Capital, in: Administrative Science Quarterly, 42, 339-365.

Burt, R. S. (1999): The Social Capital of Opinion Leaders, Annals 566, 37-54.

Cialdini, R. B. (1993): Influence: Science and Practice (3rd ed.). New York: Harper Collins College Publishers.

Coleman, J. (1988): Social capital in the creation of human capital, in: American Journal of Sociology, 94, 95-120.

Coleman, J. (1990): Foundations of Social Theory, Cambridge, Mass.

Cornwall, J. R./Perlman, B. (1990): Organizational Entrepreneurship, Homewood, IL: Boston-Irvin.

Davenport, T.H./Prusak, L. (1998): Working Knowledge How Organizations Manage What They Know. Boston, MA: Harvard Business School Press.

Diamantopoulos, A./Winklhofer, H. M. (2001): Index construction with formative indicators: An alternative to scale development, in: Journal of Marketing Research, 38 (2), 269-277.

Dogson, M. (1991): The Management of Technological Learning: Lessons from a Biotechnology Company, Berlin, Walter & Gruyter.

Duhan, D. F./Johnson, S. D./Wilcox, J. B./Harrell, G. D. (1997): Influences on Consumer Use of Word-of-mouth Recommendation Sources, in: Journal of the Academy of Marketing Science, 25(Fall), 283-295.

Eagly, A.H./Chaiken, S (1993): The Psychology of Attitudes, Harcourt Brace Janovich, Chicago, IL.

Edquist, D. (1997): Systems of Innovation. Technologies, Institutions and Organisations, London, Printer.

Faist, T. (1995): Sociological Theories of International Migration: The Missing Meso-Link, Papre presented at the Meeting of the Theory Group of Migration and Development (MAD) Project, Hamburg.

Fukuyama, F. (1995): Trust: The social virtues and the creation of prosperity, New York: Free Press.

Fukuyama, F. (1997): Social capital and the modern capitalist economy: Creating a high trust workplace, Stern Business Magazine, 4 (1).

Gabbay, S.M. (1997): Social Capital in the Creation of Financial Capital: The Case of Network Marketing. Illinois: Stipes Publishing.

Gabbay, S. M./Leenders, R. Th. A. J. (1999): CSC: The structure of advantage and disadvantage. In R. Th. A. J. Leenders & S. M. Gabbay (Eds.), Corporate social capital and liability (pp.1-14). Boston: Kluwer Academic Publishers.

Gabbay S. M./A. J. Stein (1999): Embedding social structure in Technological Infrastructure: Constructing Regional Social Capital for a sustainable peace in the Middle East.' In: J. Wright (Ed.), The political economy of Middle East Peace (pp. 154-180). Boston and London: Routledge.

Gatignon, H./Robertson, T. S. (1986): An Exchange Theory Model of Interpersonal-Communication, Advances in Consumer Research, 13, 534-538.

Gertler, M./ Wolfe, D. A./Garkut, D. (1998): Dynamics of the Regional Innovation System in Ontario, in: de la Mothe/Paquet, eds. 211-238.

Gertler, M./Wolfe, D. A./ Garkut, D. (2000): No Place like Home? The Embeddedness of Innovation in a Regional Economy, Review of International Political Economy.

Gherardi, S./Masiero, A. (1990): Solidarity as a networking skill and a trust relation: Its implications for cooperative development. Economic and Industrial Democracy, 11: 553-574.

Ghoshal, S./Bartlett, C. A. (1990): The Multinational Corporation as an Interorganizational Network. Academy of Management Review, 15(4): 626.

Granovetter, M. (1973): Strength of Weak Ties, American Journal of Sociology, 78 (6), 1360-1380.

Granovetter, M. (1982): The Strength of Weak Ties: A Network Theory Revisited, in: Social Structure and Network Analysis. Beverly Hills, Sage publications.

Gwinner, K. P., Gremler, D. D./Bitner, M. J. (1998): Relationship Benefits in Services Industries: The Customer's Perspective, Journal of the Academy of Marketing Science, 26 (2).

Hansen, M. T. (1999): The Search-Transfer-Problem: The Role of Weak Ties in sharing Knowledge across Organization Subunits, Administrative Science Quarterly 44, 82-111.

Hayek, F. A. (1945): The use of knowledge in society, in: American Economic Review, 35: 519- 532.

Hirschman, E.C. (1980): Consumer modernity, cognitive complexity, creativity and innovativeness, in: Bagozzi, R.P (Eds), Marketing in the 80's: Changes and Challenges, American Marketing Association, Chicago, IL, pp.135-9.

Inkpen, A. C./Dinur, A. (1998): Knowledge management processes and international joint ventures. Organization Science, 9: 454-468.

Jarvis, C. B./ MacKenzie, S. B./Podsakoff, P. M (2003): A critical review of construct indicators and measurement model misspecification, Journal of Consumer Research, 30 (2), 199-218.

Kline, S.J./Rosenberg, N. (1986): An Overview of Innovation**,** pp. 275-306, in Landau, R. and Rosenberg N. eds. «The positive Sum Strategy. Harnessing Technology for Economic Growth» Washington, D.C., National Academy Press.

Krackhardt, D. (1992): The strength of strong ties: The importance of philos in organizations. In N. Noria & R.G. Eccles (eds.), Networks and organizations: 216-239. Boston, MA: Harvard Business School Press.

Krackhardt, D./Stern, R. N. (1988): Informal networks and organizational crisis: An experimental simulation. Social Psychology Quarterly 51: 123-140.

Landry, R./Amara, N. (1988): The Chaudières-Appalache System of Industrial Innovation, pp. 257-276, in De la Mothe, J. and Paquet, G. eds. Local and Regional Systems of Innovation, Amsterdam, Kluwer Academic Publishers.

Larson A. (1992): Network dyads in entrepreneurial settings: a study of the governance of exchange relationships, Administrative Science Quarterly 37, 76–104.

Lengnick-Hall, M.L./Lengnick-Hall, C.A. (2003): Human Resource Management in the Knowledge Economy. Berrett-Koehler: San Francisco.

Leonard-Barton, D. a. S., D. (1993): Developer-user Interaction and User Saticfaction in Internal Technology Transfer, in: Academy of Management Journal 36(5): 1125-1139.

Levin, D. Z./Cross, R./Abrams, C. L. (2002): The strength of weak ties you can trust: the mediating role of trust in effective knowledge transfer. Academy of Management Proceedings, D1: 6p.

Lin, N. (1999): Building a Network Theory of Social Capital. Connections 22 (1), 28-51.

Mayer, R. C./Davis, J. H./Schoorman, S. D. (1995): An integrative model of organizational trust. Academy of Management Review, 20 (3), 709-734.

Mayer, R. C./Davis, J. H. (1999): The effect of the performance appraisal system on trust for management: A field quasi-experiment, Journal of Applied Psychology, 84 (1), 123-136.

Mayo, M.A./Marks, L.J. (1990): An empirical investigation of a general theory of marketing ethics, Journal of the Academy of Marketing Science, Vol. 18 pp.163-71.

McElroy, M.W. (2001): Social Innovation Capital.

Merton, R.K. (1973): The Sociology of Science. Chicago: University of Chicago Press.

Nahapiet, J./Ghoshal, S. (1998): Social capital, intellectual capital and the organizational advantage, Academy of Management Review, 23, 242-266.

Naude, P./Buttle, F. (2000): Assessing Relationship Quality, Industrial Marketing Management, 29 (4), 351-361.

Oliver, A. L. (1997): On the nexus of organizations and professions: Networking through trust. Sociological Inquiry, 67: 227-245.

Oltra, V. (2003): The key role of human resource practices in knowledge management effectiveness: An effort toward theory building through case-study research. Paper presented

at the 7th Conference on International Human Resource Management, Limerick, Ireland, June 4-6.

Orr, J.E. (1990): Sharing Knowledge, Celebrating Identity: Community Memory in a Service Culture. D. Middleton, D. Edwards, eds. Collective Remembering, London: Sage, 169-189.

Patel, P./Pavitt, K. (1994): National Innovation Systems: Why they are important and how they might be measured and compared, Economics of Innovation and New Technology, 3, pp. 77-95.

Penrose, E.T (1959): The Theory of the growth of the firm. Oxford: Blackwell.

Pinkus, R. L. B./Shuman, L. J./Hummon, N. P./Wolfe, H. (1997): Engineering ethics: Balancing cost, schedule, and risk - lessons learned from the space shuttle. Cambridge, UK: Cambridge University Press.

Porter, M. (1999): Clusters and the New Economics of Competition, Harvard Business Review, Dec, pp. 77-90.

Porter, M. (2000): Location, Competition and Economic Development: Local Clusters in a Global Economy, Economic Development Quarterly, 14-1, pp. 15-34.

Portes, A. (1995): Economic Sociology and the Sociology of Immigration: A Conceptual Overview, in: Portes, A. (Ed.): The Economic Sociology of Immigration: Essays on Networks, Ethnicity, and Entrepreneurship, New York, 1-41.

Powell, W. W./Koput,.K W./Smith-Doerr, L./Owen-Smith, J. (1999): Network position and firm performance: Organizational returns to collaboration in the biotechnology industry. Research in the Sociology of Organizations, 16: 129-159.

Putnam, R. D. (2000): Bowling alone: the collapse and revival of American community, New York.

Quinn, J.B. (1992): Intelligent Enterprise, New York, The Free Press.

Reingen, P. H./Kernan, J. B. (1986): Analysis of Referral Networks in Marketing - Methods and Illustration, Journal of Marketing Research, 23 (4), 370-378.

Ring, P. S./van de Ven, A. H. (1992): Structuring cooperative relationships between organizations. Strategic Management Journal, 13 (7), 483-498.

Ring, P. S./van De Ven, A. H. (1994): Developmental processes of cooperative interorganizational relationships. Academy of Management Review, 19: 90-119.

Robertson, M./O'Malley Hammersley, G. (2000): Knowledge management practices within a knowledge-intensive firm: The significance of the people management dimension. Journal of European Industrial Training, 24: 241-253.

Rogers, E. M./Kincaid, D. L. (1981): Communication networks: toward a new paradigm for research, New York London: Free Press ; Collier Macmillan.

Rogers, E. (1995): Diffusion of Innovations, The Free Press, New York, NY.

Rosemberg N. (1982): Inside the black box: technology and economics, Cambridge University Press.

Rothwell, R. (1992): Succesful Indusrial Innovation: Critical Factors for the 1990s, in: R&D Management 22: 221-239.

Schneider, B. (1983): Work climates: an interactionist perspective, in Feimer, N.W., Geller, E.S. (Eds), Environmental Psychology: Directions and Perspectives, Praeger, New York, NY, pp.106-28.

Shenkar, O./Li, J. (1999): Knowledge search in international cooperative ventures. Organization Science, 10: 134-143.

Sherman, S. P. (1984): “Eight big masters of innovation”, Fortune, October 15.

Souder, W.E./Moenaert, R.K. (1992): An Information Uncertainty Model for Integrating Marketing and R&D Personnel in New Product Development Projects, in: Journal of Management Studies, 29, 485-512.

Staber, U. H. (1994): Network diversity, stability, and access to business resources: A US-Canada comparison. (International Sociological Association ISA).

Swart, J./Kinnie, N. (2003): Sharing knowledge in knowledge-intensive firms. Human Resource Management Journal, 13 (2): 60-75.

Trice, H. M./Beyer, J. M. (1993): The Cultures of Work Organizations, Englewood Cliffs, NJ: Prentice-Hall.

Tsai, W. (2000): Social capital, strategic relatedness and the formation of intraorganizational linkages. Strategic Management Journal, 21, 9: 925-340.

Tsai, W. (2001): Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance, in: Academy of Management Journal, 44: 996-1005.

Tsai, W./Ghoshal, S. (1998): Social Capital and Value Creation: The Role of Intrafirm Networks, Academy of management Journal, 41, 464-478.

Twining, J.E (1991): Strategies for Active Learning, Allyn & Bacon,, Needham Heights, MA.

Uzzi, B. (1996): The sources and consequences of embeddedness for the economic performance of organizations: The network effect. American Sociological Review, 61: 674-698.

Uzzi, B. (1997): Social structure and competition in interfirm networks: The paradox of embeddedness. Administrative Science Quarterly, 42: 35-67.

Uzzi, B. (1999): Social relations and networks in the making of financial capital. American Sociological Review, 64: 481-505.

van de Meer, J. B. H./Calori, R. (1989): Strategic management in technology-intensive industries. International Journal of Technology Management, 4: 127-139.

von Hippel, E. (1988): The sources of innovation. New York: Oxford University Press.

Wasserman, S./Faust, K. (1994): Social network analysis : methods and applications, Cambridge ; New York: Cambridge University Press.

Weber, R. A./Camerer, C. F. (2003): Cultural conflict and merger failure: An experimental approach, Management Science, 49, 400-416.

Weick, K./Roberts, K. (1993): Collective mind in organizations: Heedful interrelating on flight decks, in: Administrative Quarterly 38, 357-381.

Weimann, G. (1982): On the Importance of Marginality: One more step into the Two-Step Flow of Communication, American Sociological Review, 47, 764-773.

Winter, S.G. (1987): Knowledge and Competence as Strategic Assets, in Teece. D:J: ed. The Competitive Challenge. Strategies for Industrial Innovation and Renewal, USA, Harper & Row.

Zahra, S. A. (1991): Predictors and financial outcomes of corporate entrepreneurship: An exploratory study, in: Journal of Business Venturing, 6: 259–85.

Zand, D. E. (1972): Trust and managerial problem solving. Administrative Science Quarterly, 17: 229-239.

Figure 1

The Conceptual Model