THE DARKER SIDE OF SOCIAL CAPITAL

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ABSTRACT

Recently, there has been a shift in the way management scholars view the firm, from more traditional models that are based on ideas of opportunism and market failure (Williamson, 1975), to newer knowledge-based theories that argue for a more socialized perspective (Kogut & Zander, 1992). One of the key components of these theories is the notion of social capital. Social capital is the set of resources that accrue to an individual or group by virtue of possessing a set of relationships. Scholarly research suggests that firms can leverage the social capital that is embedded in the relationships of their members to develop intellectual capital (Naphiet & Ghoshal, 1988). As such social capital can be used to create differential organizational advantage.

In this paper, we question the contention that the accumulation of social capital has a positive and proportionate effect on the performance of projects in organizations. To do this, we use data collected from over 38 interviews of senior and middle managers in five firms across five different industrial sectors in the United Kingdom. Our findings indicate that while social capital has many beneficial effects with respect to information access and retrieval, that there are also a host of less-beneficial aspects to utilizing social capital, which are under-explored in the current empirical literature. Implications and future research directions are discussed.

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INTRODUCTION

Recently, there has been a shift in the way management scholars view the firm. While traditional models are based on ideas of opportunism and market failure (Williamson, 1975), more recently, scholars have argued for a more socialized perspective of the firm, in which "organizations are social communities where individual and social expertise is transformed into economically useful products and services" (Kogut & Zander, 1992:384). These newer theories argue that the firm's principal purpose and source of competitive advantage is the creation and dissemination of firm specific knowledge (Kogut & Zander, 1996). The implication here is that if firms can develop the capabilities for creating and sharing knowledge, then these capabilities can be used to generate organizational advantage. In other words, organizations can create value from their organizational knowledge, not merely appropriate it (Moran & Ghoshal 1996).

Implicit in this new perspective of the firm is the notion of social capital. Social capital is defined as "the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu & Wacquant, 1992:119). Unlike financial or human capital, which can be possessed by a large number of people, social capital is unique. It resides in the structure of relationships between or among actors making it a resource that does not lie with one individual, but instead is jointly owned (Coleman, 1988; Putnam, 1995). Therefore, it is a potential source of differential advantage.

Nahapiet and Ghoshal (1998), in their comprehensive review of the conceptual literature on social capital, divide the construct into three distinctive but clearly

interrelated dimensions: structural, cognitive and relational. Structural social capital refers to the ways in which motivated recipients gain access to actors with desired sets of knowledge or intellectual capital. Structural social capital is principally studied using a network approach. In network research, the frequency of contact and resulting social distance among actors in a particular firm or organizational field are plotted to form a web-like diagram illustrating actor interaction patterns. The objective in much of this research is to determine the central nodes of the network, in that developing an awareness of the location of critical communicators is helpful in understanding communication patterns as well as resultant organizational behaviors such as power positioning and knowledge flows (Brass& Burkhardt, 1992).

In contrast, cognitive social capital recognizes that exchange occurs within a social context that is both created and sustained through ongoing relationships (Nahapiet & Ghoshal, 1998). Similar to the notion of community of practice (Brown & Duguid, 1991) cognitive social capital refers to the shared meanings that are created through stories and continual discussions within a specific, often clearly defined group. These shared meanings are self-reinforcing in that participation in the community is contingent upon an a priori understanding of the context coupled with continual contribution to these on-going dialogues.

Finally, the relational aspects of social capital are concerned with the underlying normative dimensions that guide exchange relationship behaviors. Norms exist when the socially defined right to control an action is not held by the individual actor, but instead is held by others (Coleman, 1990). Therefore, norms represent a degrees of consensus and hence are a powerful albeit fragile form of social capital (Nahapiet & Ghoshal, 1998). Social capital theorists are particularly concerned with norms of cooperation and control such as trust and reciprocity. Specifically, norms of

trust lead to enhanced cooperation, which in turn lead to increased trust. Similarly, reciprocity is an obligation, which when satisfactorily fulfilled, can lead to further reciprocal arrangements.

Nahapiet and Ghoshal (1998) argue that these three dimensions of social capital: structural, cognitive and relational, operating in conjunction with the opportunity for combination and exchange in the organization, result in the creation of new intellectual capital. New intellectual capital is associated with organizational effectiveness and value creation.

In addition to Nahapiet and Ghoshal (1998), other conceptual work has examined social capital effects. Walker, Kogut and Shan, (1997) discuss the role played by social capital in network formation while Burt, (1997) posits that there are significant information and control effects in the use of social capital for senior managers. Leana and Van Buren (1999) discuss how employment practices can foster or discourage the development of potentially beneficial social capital in firms.

Many empirical studies that use a social capital perspective have recently appeared in the strategic management literature. These studies have tended to focus on the role of social capital in exchange relationships across organizations (Chung, Singh & Lee, 2000; Tsai, 2000), as well as within organizational activities such as resource allocation (Bouty, 2000) innovation (Tsai & Ghoshal, 1998) CEO compensation (Belliveau, O'Reilly & Wade, 1996) and managing change (Gargiulo & Benassi, 2000). Another stream of social capital research has examined the interconnectedness of human and social capital in project-based firms (DeFilippi & Arthur, 1998) and in work/race relations (James, 2000). Finally, recent research has examined the differences in social capital usage across national boundaries (Burt, Hogarth & Michaud, 2000).

In all of these studies, the accumulation of social capital is predominately viewed as having a positive and proportionate effect on performance – in short, 'more is better'. Thus, the emphasis in current research is primarily on the benefits that can be achieved by participating in social networks and on the deliberate construction of social relationships for achieving these benefits. However, as Locke (1999) notes, this one-sided perspective has several limitations. He argues that loss of objectivity, the role of individual discovery and the direction of the causal linkages between social and intellectual knowledge creation are all critical flaws in current social capital theory. According to Locke (1999) loss of objectivity is a function of actors becoming deeply embedded in an existing network. This can lead to the exclusion of new actors or ideas that are potentially beneficial. Locke (1999) cites the Japanese banking crisis as an example of a network in which the actors that were more concerned with solidarity than they were with sound banking practices.

The role of individual discovery refers to the inherently individual process of knowledge creation. Locke (1999) argues that knowledge is created individually through the integration of sensory material through reason. In addition, he suggests that organizational advantage is not derived primarily from social interaction but instead that value creation is an intellectual process. Therefore instead of a feedback loop between social capital and intellectual capital as argued by Nahapiet and Ghoshal (1988), Locke (1999) argues instead that knowledge is discovered at the individual level and that this is followed by dissemination at the social level and eventual routinization at the organizational level.

In this paper, we follow Locke (1999) in that we critically examine many of the underlying assumptions made in most conceptual and empirical studies relating to social capital. While we agree with the fundamental premise outlined in Naphiet and

Ghoshal (1998), which is that social capital is a vital component in the creation of intellectual capital and hence may be a source of differential advantage, in our paper we strive to provide a more holistic perspective on social capital. We do this by exploring its beneficial as well less-beneficial aspects. Instead of an unmitigated, 'more is better' approach, as is so popular in much of the current scholarly research; our findings suggest that *social capital has paradoxical effects*. By this we mean that social capital is simultaneously beneficial in that it provides access to knowledge that may otherwise be difficult to obtain and concurrently detrimental in that it encourages the use of local search behaviors over other more extensive and potentially beneficial information gathering activities. Thus, social capital extends relationships as well as channels further networking opportunities. The underlying premise of our work is that a balanced perspective is needed to fully understand the ramifications of using social capital for, as our findings indicate, social capital is a necessary, but not sufficient, condition for value creation in organizations.

RESEARCH DESIGN AND METHODS

This investigation was an exploratory qualitative study of five unrelated projects, for the purpose of understanding the processes by which project-based learning was created and disseminated. The unit of analysis was the project. What the five case studies give us that other research designs cannot is an intensive investigation of processes, which reveals the common patterns among projects. The limits of qualitative research involving a small set of cases are well documented: we do not know if the findings from this inquiry can be generalized to a larger population. The value of the research instead lies in its ability to provide insights through rich detail, and to provide directions for future inquiries.

The project did not begin as an exploration of social capital effects. Our initial mandate was to use interviewing techniques to better understand the ways in which projects take their learning and transfer it to other like groups within the firm. Interviewing was chosen as the method of investigation because there is a strong indication in the organizational learning and knowledge transfer literatures that the context in which the transfer occurs is extremely important in the transfer process (Argote, 1999; Szulanski, 1996). Only after the interviews were completed and the data analyzed, did we realize the important, and often contradictory effects that using social capital in the context of project-based learning had on the organizations in our sample.

Sample Criteria and Selection

Companies were chosen based on industrial sector. Five diverse industrial sectors are represented in the data, telecommunications, pharmaceuticals, health-care, construction, and social services. A sixth sector, automotives, was initially included in the research design, but the company declined to participate due to a large number of internal changes that were on-going during the time-frame of our inquiry. These particular industrial sectors represent a substantial portion of the UK economy, and hence were identified as critical for inclusion in a UK-based cross-sector inquiry. For the purposes of this study, the organizations are called Teleco, Drugco, Healthorg, Constructco and Servicesorg. All organizations are located in the United Kingdom. The organizations were operating under relatively different environmental conditions; for example, Teleco was operating in a rapidly changing environment and was undergoing a major cultural transformation as it moved into Internet-based competition. Conversely, Constructco's and Servicesorg's environments were relatively stable. Drugco, and Healthco were also operating under conditions of some

uncertainty, but these were due mainly with regulatory and other governmental changes and so were not of the radical proportion that Teleco was experiencing.

In each company, a specific project was chosen as the focus of our investigation. Projects were chosen by the organization, based on a set of guidelines set by the research team. Since we were interested in generic project-based learning issues, we asked each organization to provide us with a typical project. We also recognized the difficulties in comparing projects at different phases of their life cycle (Leonard-Barton, 1990), and so we requested a mature project that was well established in the organization. To our surprise, we found that projects and project teams are not synonymous, and that in two of the five cases the core project members consisted of one or two actors. These projects stand in contrast to two other projects that have an identifiable team structure, identifiable objectives and finite time duration. One project was a hybrid of the two project types.

Data Collection

In all cases, we began our investigation with an introductory meeting with a senior manager, administrator or the director of the organization. While this person had a general familiarity with our interest in project-based learning, it was necessary for us to acquaint him with the particulars of this inquiry, and to help him in identifying an appropriate team for us to investigate. In each case save one, a suitable project was determined at this initial meeting. In one instance, a project was identified that failed to meet our "typical project" criteria and so another project was chosen. In conjunction with the introductory meetings, archival data was collected about each organization to help the researchers understand the organizational context in which the project was situated. Web sites were accessed when available, and

written documentation in the form of financial reports and/or press releases was requested.

After our initial meeting, we met next with the various project managers. It was at this meeting that we learned the details of each project as well as the names and contact information of the project members. To the extent that it was available, we collected archival project documentation, to include project process charts as well as sets of minutes from previous project meetings. Subsequent to this meeting, we met with numerous members of the project team. In all cases, the project team members interviewed had different roles and responsibilities on the team, thereby providing us with a holistic perspective on project-based learning for that group. In addition, regularly scheduled meetings were held within the research group to discuss our findings to date. In total, we interviewed thirty-eight individuals, in five organizations over a seven-month period, logging thirty-five total interview hours. Table one provides a breakdown of the number of individuals interviewed per organization and the length of each contact.

Insert Table 1 about here

While the interviews varied in length from one-half hour to over two hours, on average each interview lasted for approximately one hour and fifteen minutes. One of the interviews was conducted in a group format and included four different project participants. At another organization, researchers attended a project meeting. In all cases, every attempt was made to have two researchers present at each interview, although this was not possible for every interview due to scheduling difficulties. Before each interview, interviewees were sent a letter describing the objectives of the research project and outlining the subject of the interview. At each interview, the

researcher gave a brief example of knowledge transfer to help the respondent understand the general phenomenon of interest. All interviews were structured to maximize the respondent's ease of response. Respondents were asked to initially describe their role in the project, then to discuss the process of knowledge creation and transfer first within the project and then between other projects and other organizations, if applicable. At each interview, numerous open-ended questions were asked to encourage respondents to relate stories of how knowledge was created and transferred within and across similar projects within the organization.

All interviews followed a pre-designed interview protocol. The protocol included questions about the facilitators and barriers to knowledge transfer among project teams. Questions in the interview protocol were developed based on an extensive review of the knowledge management literature, a workshop in which senior managers from each of the five companies discussed project-based learning issues, as well as from the backgrounds in knowledge management research of the various research team members.

Data Analysis

As is typical in inductive studies, writing the five case studies was an iterative process in which the data was constantly revisited (Eisenhardt, 1989; Yin, 1989). To aid in data consistency, the interview data was initially coded based on a coding scheme developed by the research team. Data coding was also an iterative process in which the research fellow and the team's four principal investigators searched the data for regularities and patterns and then recorded these key words and phrases to represent topics or themes which became the categories for further study (Bogdan & Biklen, 1992). It was our analysis of these themes that led us to focus on the

contradictory role played by social capital. Within each category if inconsistencies occurred among the data that was collected, third party sources were consulted for clarification. Triangulation across the different sources of primary and archival data revealed a high level of data consistency.

After each case study was complete, the data was re-analyzed to develop the conceptual insights presented in this paper. While there were no preconceived hypotheses at the outset of the inquiry, patterns emerged from the data reflecting the contradictory nature of social capital in the creation and transfer of project-based learning.

Validity and Transferability of the Findings

Recent research suggests that the processes involved in analyzing qualitative data have motivated a change in the traditional frameworks that were used for ensuring the data validity (Erlandson, Harris, Skipper & Allen, 1993). Specifically, to ensure validity, qualitative data must be checked against the criteria of credibility and transferability. In this study, data categories were identified across the five case studies to ensure data credibility. In addition, after each case study was written, it was sent to the individual project manager as a way to ensure the validity of the findings. Findings were also discussed with company representatives at a project workshop meeting held near the conclusion of the project. Data transferability was addressed by utilizing an interview protocol for collecting data that utilized questions that were primarily drawn from the existing literature. In relying on previous literature to ground our inquiry, future researchers examining social capital in similar contexts could potentially apply the interview protocol to their own studies.

FINDINGS AND DISCUSSION

Characteristics of Social Capital

Unlike economic capital that resides in people's bank accounts and human capital that is inside their heads, social capital is found in the nature of personal relationships. To possess social capital, a person must be related to others, and it is those others, not he or she, who are the actual source of his or her advantage (Portes, 1998:7). Social capital can be thought of as "know-who"; it is about everyone you now know, everyone you knew and everyone who knows you even though you do not know them (Burt, 1992). Unlike financial and human capital, which can be possessed within an acceptable range by a large number of people, social capital is unique. As such, it is a source of differential advantage.

The emergent nature of social capital is one of the principal factors leading to the positive and unintentional negative effects that social capital can have on actors and organizations. Social capital is unplanned in that it arises out of day-to-day interactions. This implies that at the outset of any innovative activity, the social capital benefits accruing to a particular team or project are unable to be anticipated. Therefore, the social capital effects on both intellectual capital creation and subsequent innovation activities are likely to be unclear.

In addition, due to its emergent nature, social capital cannot be readily appropriated as an organizational resource. This is due in part to the unique nature of social capital in that it is not held by individuals or organizations but instead is found in the nature of relationships. Therefore, the characteristics of social capital correspond closely to social interaction patterns, such as physical proximity, occupational affiliation, mutual interests and informal relationships rather than to any planned strategic approach of a particular organization. However, social capital is an

important part of organizational capital and hence it will reflect the historical evolution of organizational strategy.

Nahapiet and Ghoshal (1998) emphasize the beneficial effects of social capital on the creation of intellectual capital. In their work, they identify three dimensions of social capital: structural, cognitive and relational. Our study of inter-project learning builds on their conceptual work. However, our findings indicate that a more equivocal perspective of social capital is needed to more fully understand the role that it plays in organizational value creation. While not invalidating Nahapiet and Ghoshal's (1998) analysis of social capital's important role in the development of intellectual capital, our findings indicate that social capital can operate in the organization in both beneficial and less-beneficial ways. Table two and three present illustrative examples from the five cases in our inquiry.

Insert Table 2 about here

Insert Table 3 about here

Structural social capital: Knowledge redundancy

The structural dimension of social capital in project-based learning refers to the ways in which motivated recipients gain access to actors with desired sets of knowledge or intellectual capital (Nahapiet & Ghoshal, 1998, Portes, 1998). The fundamental notion, networks, refers to economic action that is seen as embedded in an ongoing set of relationships (Granovetter, 1992). It is these relationships, which are often established for other purposes, which form channels to information that is otherwise difficult to retrieve.

According to Burt (1992), networks provide three forms of benefits: access, timing and referrals. Access refers to receiving information as well as knowing who can use that information while timing refers to the timeliness of the information and referrals is about using the network as an information filter. The logic here is that information is asymmetrically distributed within and across organizations. Social networks provide access to unevenly distributed information. As with the more general concept of social capital, with networks, more contacts are perceived to be better. To this end, employees who desire stronger networks join more committees, and attend more social-functions.

Yet, paradoxically, network size is a mixed blessing. Burt (1992) reminds us that it is the diversity of the network, not its absolute size, which is important. Non-redundant contacts can lead to information that is novel or new. Conversely, while redundant contacts can lead to the same new information as non-redundant contacts, they take much more time to maintain than their non-redundant counterparts do. For example, one of our cases, Constructco developed and implemented a 'regional engineering manager' role (REM) in its civil and build divisions in each of the regions that it services. While these regional engineers used each other as a first point of

information when they had a problem to solve, each REM tended to be privy to the same sorts of information and therefore were less helpful with difficult or unusual problems. REM's were forced to expand their search for new knowledge outside the company, leading to problems with inaccurate information and subsequent sub-optimal solutions.

Similarly, Hansen (1999) highlights the effort required to maintain strong relationships, arguing that the efficacy of these in terms of knowledge transfer depends on the type of knowledge to be transferred. Strong ties, he suggests may only be effective when the knowledge to be transferred is complex and largely tacit. However, explicit knowledge transfers easily through weak-tie relationships. This suggests that when organizations need to transfer complex non-articuable knowledge, then the effort required to maintain strong, often redundant ties, is well spent, however such efforts are not justified then the knowledge to be transferred is explicit.

Just as organizational learning may lead to 'competence traps' (Levitt and March, 1988), social capital may produce 'relationship traps' in that utilizing social capital can lead to a disincentive to engage in other information search patterns. Consider in our research, Teleco whose mandate is to change from a traditional telephone provider to a dominant player in the revolutionary telecommunications marketplace. To do this, Teleco has changed its technology strategy from 'make to buy.' Instrumental to that change is the technology watch group, which identifies companies that are involved in technologies that Teleco perceives as necessary to its future development. The technology watch team uses its extensive internal network to draw upon the expertise of Teleco employees when deciding if a company is potentially interesting. However, using this internal network is potentially problematic in that it limits the other types of search activities that might potentially

be employed. For example, within Teleco a sophisticated information retrieval system was developed to help overcome local search behaviors, but according to one project manager, it is not widely utilized because people prefer "*personal e-mail, the coffee point, and meetings*."

Cognitive social capital: Social closure

While the structural dimensions of social capital refer to the ways in which knowledgeable actors are accessed, the cognitive dimensions recognize that exchange occurs within a social context that is both created and sustained through ongoing relationships (Nahapiet & Ghoshal, 1998). As such, meaningful communication is sustained through the ongoing dialogue of shared meanings among parties to the exchange (Boisot, 1995). This perspective is similar to Brown and Duguid's (1991) concept of community of practice. In a community of practice, knowledge is constructed as individuals share ideas through collaborative mechanisms such as narration and joint work. Within such communities shared means for interpreting complex activity are constructed, often out of conflicting and confusing data. It is this *process* of constructing meaning, which provides organizational members with identity and cohesiveness.

While the concept of community of practice is intuitively appealing, the boundaries of a community define who is inside, and therefore, who is outside of that community. Therefore, while social capital can tie projects within organizations together, it can also exclude new sources of knowledge that come from outside the boundaries of the social network (Portes, 1998). Consider Drugco who is introducing a radical new procedure to treat prostate cancer which avoids the deleterious effects of both surgery and traditional beam radiation. The new procedure requires the expertise

of both radiologists and urologists. In this case, the company has found that the difficulty does not lie in getting patients to accept the new procedure, but instead it is in getting these two disparate groups of doctors, with different professional identities, to work together.

Normative social capital: Resistance to change

The relational dimensions of social capital refer to the underlying normative structure of exchange. Coleman (1988) describes norms as " a powerful but fragile form of social capital." As such norms have a significant influence on the exchange process in that they open up access to actors for exchange as well as ensuring the motivation to engage in such actions (Nahapiet & Ghoshal, 1998; Putnam, 1993).

Resources obtained through social capital have the character of a gift. As such, they are subject to norms of reciprocity. Under reciprocity norms, donors provide privileged access to resources in the expectation that that they will be fully repaid in the future, although the timing and form of repayment are unspecified at the time of the exchange. Reciprocity norms govern the relationship between the Regional Engineering Manager and the construction site managers in Constructco. In this organization, the Regional Engineering Manager must rely on the site managers to carry out his initiatives. The site managers are willing to do this, even though it means extra work, because they know that the REM is acting as an advocate for them in the home office.

While the norm of reciprocity is the most widely discussed norm with respect to social capital, other normative dimensions are also important. For example, social capital can form unwritten norms of control and compliance among actors in projects, thereby limiting beneficial innovative organizational activities in that they deter

individuals from deviating from established norms. For example, Servicesorg introduced an innovative way of managing clients when they moved into their new flagship building. Instead of having individual offices and client appointments, counselors were now expected to hot desk and to work with clients on a walk-in basis. Counselors were extremely resistant to this change, even though it meant better service to their various constituents. Traditional perceptions about client service had to be changed before this new innovative approach was fully accepted.

Alternatively, consider Healthorg who was reengineering the process through which cataracts were diagnosed and treated. Traditional normative assumptions about the role of medical professionals needed to be altered before the new process was accepted. Through extensive contact and consensus building, perceptions about professional qualifications were slowly modified and preexisting normative barriers to innovation were broken down (Newell, Edelman, Bresnen, Scarborough and Swan, 2000).

Interaction effects –Structural, cognitive and relational dimensions

In addition to the potentially detrimental individual effects of social capital on firm innovation activities, findings from our inquiry suggest that there are important interaction effects that further limit the effectiveness of utilizing a social capital approach. Findings from our inquiry suggest that in situations where a group has developed a shared set of understandings and along with that strong norms of trust and reciprocity, then they are also likely to have developed both strong and multiple social linkages. While these strong links may facilitate knowledge movement within the group, they can also create a strong and potentially damaging barrier around the group, shielding them from possibly beneficial knowledge and information that is

outside the boundaries of the defined community. This strong barrier both makes it difficult for community members to access information outside the focal group, and may also lead to skewed perceptions in that once individuals are fully indoctrinated into the community, they may not perceive of the possible benefits of search activities outside of the group boundaries.

The "not invented here" syndrome (Katz and Allen, 1982) which is well documented in the new product development literature, typifies the interaction between structural, cognitive and relational social capital elements. Katz and Allen (1982) found that in research and development situations, strong social norms, reinforced by shared experiences led to a propensity for internal information search as well as a lack of acceptance of new ideas that were generated from outside the group. Overtime, this reluctance to accept externally generated ideas, lead to an overall decline in the level of firm innovation. Similarly, in our study, one of the principal barriers that Healthorg encountered in the development of their new cataract procedure was the need to overcome a general lack of trust of other healthcare professionals in different professional disciplines. Once the consultants broke their norms of professionalism and accepted that the optometrists were capable of handling their enhanced role in the new cataract diagnosis and treatment procedure, and in turn, the optometrists found the consultants willing to communicate with them on the diagnosis and treatment of non-routine situations, then the new cataract process was able to be implemented fairly smoothly.

Interaction effects can also work to the determinant of an individual firm's effects towards value creation. Remembering that social capital is a resource that is jointly held, then as organizational members leave the focal firm, they take their preexisting social capital ties with them. Individual network ties with current and

former colleagues, which are based on norms of trust and reciprocity as well as a common affiliation with a broader community of professionals, are often stronger than individual ties to the focal organization (Liebeskind, Oliver, Zucker & Brewer, 1996). This can lead to potentially valuable information leaving the focal firm through these pre-existing social networks. For example, in Teleco, there is ongoing radical organizational change as employees are leaving the focal firm to seek out more fulfilling, and potentially more lucrative positions in other aspects of telecommunications. This employee exodus while potentially beneficial to Teleco in that it contains the possibility of using social networks to bring in new ideas and information that are external to the organization, it can also be potentially damaging in that preexisting social capital ties may cause vital organizational knowledge to be disseminated outside the firm's boundaries.

FUTURE RESEARCH AND CONCLUSIONS

There is no doubt that social capital is an important dimension in value creation. Social capital is vital in the search and discovery of valuable and potentially difficult to obtain information. While we recognize the value of social capital, in this paper we argue that as a value creation mechanism, social capital has not been fully explored. Indeed there are instances where social capital can impede value creation by leading to aborted exploration processes, the exclusion of new knowledge and organizational disincentives for adopting new innovations. We further argue that these less-beneficial aspects of social capital interact with each other, and that these interaction effects are mutually reinforcing, thereby creating powerful forces that have the ability to destroy any beneficial value creation efforts.

These potentially detrimental effects of social capital may have been more transparent in our research because it was conducted across multiple industrial sectors. Our findings suggest that the social context in which social capital is created and utilized has a significant impact on its form and usage. For example, in a number of our cases we examined the attempted creation of intellectual capital across professional boundaries. As suggested by a social capital approach, these boundaries were powerful barriers to developing shared meanings as well as developing norms of cooperation and trust. While the actors in our cases did make substantial headway in overcoming many of these existing professional barriers, the new and significantly more efficient processes that they created were unable to be replicated in, for example, other health services. This was due in part to existing professional barriers in other national health trusts, which prevented the adoption of a cross-functional approach to health care.

We suggest that future empirical research should continue this cross-sectoral approach to examining social capital. It seems quite likely that social capital is utilized differently in dynamic versus benign environments, large versus smaller organizations, or in short versus longer-term projects (i.e., different time as well as project life-cycle dimensions). In addition, research indicates that knowledge creation and dissemination is facilitated when homologous actors participate in the process (Lincoln & Miller, 1979; McPherson and Smith-Lovin, 1987; Marsden, 1988), thereby suggesting important and currently unexplored interaction effects between human and social capital.

Finally, we argue that current research should move beyond the qualitative and exploratory methods of this inquiry to include both grounded case study as well as deductive theory-testing techniques. Value creation activities are critical to the

development of an organizational advantage, and hence the development of a more generalizable and predictive model of the paradoxical effects of social capital would therefore be of great scholarly value.

In addition to adding to scholarship, developing an enhanced perspective on social capital has several managerial implications. Given the paradoxical effects of social capital, managers are advised to encourage its use in their organizations, however, concomitantly recognize the potential for unanticipated negative consequences. While, as this paper illustrates, utilizing social capital is a potential source of differential advantage, it can also grossly hinder the value creation process by limiting trust, excluding new ideas, and providing sub-optimal solutions to problems. Managers need to be acutely aware of both the beneficial and the less-beneficial aspects of utilizing social capital, and actively work to avoid the potentially deleterious effects of social capital as much as is possible.

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TABLE ONE

INTERVIEW SUMMARY

Interviews		
Organization	Number of Interviews	Hours Spent Interviewing
Teleco	8	8
Drugco	5	5
Healthorg	9	7.5
Constructco	8	7
Serviceorg	8	7.5
Total	38	35

TABLE TWO
The Benefits of Social Capital: Examples from Five Case Studies

Cases →	Teleco	Drugco	Healthorg	Constructco	Servicesorg
Benefits					
Structural Access to information which is difficult to otherwise obtain	Extensive use of internal personal social networks for information gathering.	Company developed networks across different medical professional groups as well as networks of internal salespeople	Used networks to obtain information about Cataract Processes in other NHS Trusts	Network of regional engineering managers provides access to engineering knowledge and expertise	Personal networks crucial to bringing in external knowledge needed for re-organization effort.
Cognitive Dialogues of shared meaning	Remaining employees have long-term employment and so had worked with numerous colleagues through several reorganization schemes.	Within sales group, success stories very important in creating and maintaining motivation levels. Efforts to share success stories was ongoing.	Created a community that then created their own shared meanings.	Shared engineering language facilitates communication.	Similar training and backgrounds among employees lead to ease of communication.
Normative Facilitates access for exchange, i.e., trust, reciprocity	Radical change in corporate culture has reinforced a strong sense of cohesion among remaining employees. High levels of trust and reciprocity.	Created context in which different medical professionals learned to trust one another. This lead to the establishment of a standing cross-functional forum dedicated to cross-functional medical issues.	Created context in which disparate professionals learned to trust one another.	Strong norms of reciprocity and trust among regional engineering managers and between REM and construction site manage	

TABLE THREE
The Drawbacks of Social Capital: Examples from Five Case Studies

Cases → Drawbacks	Teleco	Drugco	Healthorg	Constructco	Servicesorg
Structural Redundancy of contacts makes it difficult to obtain novel information	Significant employee exodus leaving gaps in internal organizational knowledge, individual networks incomplete leaving potentially valuable knowledge unaccessed	Numerous restructuring efforts have left gaps in knowledge networks.	Process reengineering team comprised of eye-care specialists who previously worked with the trust.	Redundancy of information as all regional engineering managers have similar backgrounds and experience	
Cognitive Exclude new sources of knowledge from outside the community.		Highly politicized atmosphere in which all new knowledge had to be disseminated not only to the relevant sales employee but also to his/her country manager.	Overcome professional perceptions and barriers to create new knowledge.	Network of regional engineering managers used to the exclusion of other sources of knowledge within or outside company.	
Normative Norms of control and compliance leading to resistance to innovation.	Remnants of former superior culture leading to "not invented here" attitudes with respect to information gathering efforts.	Internal resistance by country managers to innovative sales practices led to resistance to their adoption.	Overcome resistance by administrative staff to proposed changes in cataract process	.	Radical change in customer service orientation led lack of trust towards managers by career counselors.