Social Capital and Knowledge Creation in an ERP Project Team: Unintended Incapacitating Consequences of Social Capital

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ABSTRACT

A project team, set up to design and implement an Enterprise Resource Planning (ERP) system, is essentially tasked with integrating knowledge distributed across an organization. This suggests that the social capital of members will be important. In the case study project, however, team members used their social capital to further their own personal goals rather than the ERP project goals. Moreover, time and effort spent maintaining networks with others outside the project to pursue personal goals prevented the project team from developing into a knowledge-sharing community. The paper uses the framework of strategic exchange to explore why, in this particular situation, social capital had a detrimental rather than a beneficial impact on the ERP project.

INTRODUCTION

Enterprise Resource Planning (ERP) represents a relatively new kind of information system that has been designed to help integrate the core corporate activities of an enterprise, such as finance, logistics and human resources. They have been developed in response to the need to manage across global businesses, which is difficult when each business is using different systems and technologies (Imra et al., 2000; Klaus et al., 2000). ERP systems are based on developing a common IT infrastructure and

common business processes. ERP systems are thus business solutions aimed at supporting integration of total business activity (Markus et al., 2000).

ERP systems have diffused extremely rapidly and extensively, especially across large firms. This rapid diffusion has been stimulated by the purported benefits of an ERP system, especially in terms of improved productivity and speed (Davenport, 1998). However, evidence is accumulating that many organizations have failed to achieve such benefits. Perhaps the most quoted example of a failed implementation was that at FoxMeyer Drug, which led to bankruptcy proceedings and litigation against the principal IT supplier (Stein, 1998). Given the potential for such a business failure, it is important to identify areas where ERP projects can begin to go awry (Kumar & van Hillegersberg, 2000)[1]. In this paper we explore the micro-processes surrounding the design and implementation of an ERP system within a large blue-chip British manufacturing company.

The paper is structured as follows. The literature review begins by a consideration of the characteristics of ERP systems and the innovation perspective that we are adopting in this paper. The importance and relevance of social capital for an ERP project team is then explored to provide the conceptual framework for this particular paper. The next section outlines the ethnographic research method that has been adopted and then the case itself is described, followed by a more detailed description of the ERP project team. The analysis and discussion of the case is provided in the next section. Here we introduce the concept of strategic exchange (Watson, 1994) as a heuristic device for considering the conditions in which social capital may be likely to be appropriated for individual, rather than organizational, advantages. The paper ends with some conclusions about the effect of social capital on processes of knowledge integration within a project team.

CHARACTERISTICS OF ERP

ERP systems are somewhat different to their earlier 'cousin' – Business Process Reengineering (BPR) (Hammer and Champy, 1993). In the earlier 'era' of BPR, a

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[1] For more details related to the characteristics, potential, risks and implementation of ERP, please refer to special issues of Communications of the ACM (2000), Journal of Information Technology (2000) and Information Systems Frontiers (2000).

company was told to start with 'a blank sheet' and redesign its processes to achieve its particular strategic objectives (Hammer and Champy, 1993) and then align the IT system with these processes. With ERP, 'best practice' organizational processes are purportedly already embedded within the software (Pereira, 1999). For example, SAP R/3, the most popular ERP system and the system adopted by the case company considered here, is sold on the premise that it offers clients access to best practice industry solutions in relation to particular organizational processes (Bancroft et al., 1998; 35). SAP R/3 has a standard reference model that contains a set of event driven processes, which can be customized to represent how the organization will operate. The organization is first considered as a set of functions, (e.g. the Human Resource (HR) function) and for each function there is a set of processes available in the reference model (e.g. employee resourcing, time management and payroll are processes within the HR functional module). These processes can be selected and configured for the particular organization, but within the parameters of the reference model.

Given these relatively fixed processes, the emphasis is on changing the organization to 'fit' the technology rather than vice versa (Soh, et al., 20000). It is the problems associated with reengineering organizational practices and processes in line with those implicit in the software that has often proven to be problematic. Thus, while some studies have linked ERP failures to technical problems and a lack of functionality in the software (Orenstein, 1998), more have related such failures to the difficulties and traumas associated with drastic business process change (Holland & Light, 1999).

Understanding the problems surrounding such ERP innovation processes can be considered at a variety of different levels of analysis. In this paper we consider these processes from a micro-perspective, focusing on the activities of a particular ERP project team tasked with redesigning HR business processes to fit those embedded in the ERP system. Different epistemological perspectives can be used in examining such innovation processes and it is important to identify the particular epistemological position adopted in research (Venzin et al., 1998). In this paper, we adopt a relational approach (Hosking and Morley, 1991) to ERP adoption and implementation. This provides for a focus on innovation as a dynamic interactional process, involving the sharing and social construction of knowledge across dispersed communities. ERP

systems are thus not viewed as entities with fixed features, but rather as complex systems, that need to be designed and appropriated within each unique situation (e.g. Clark, 1987). System and business process design are essentially processes of knowledge integration. Knowledge does not reside exclusively with the supply side, nor can it be straight-forwardly transferred to the user. Rather, knowledge[2] needed for innovation is dispersed both within the organization (e.g., across functional groups and between hierarchical levels) and across organizations (e.g., with consultants, software suppliers, other firms) (Hislop et al., 1997). During innovation processes this knowledge needs to be combined and integrated (Nonaka, 1994) and made sense of (Weick, 1995) within the particular context of application. Typically this is achieved by setting up a project team[3] to first evaluate solutions available[4] and then to design and implement the chosen system.

SOCIAL CAPITAL AND TEMPORARY PROJECT TEAMS

Once a company has decided to adopt an ERP system and has selected the particular variant it will typically set up a project team to design (configure) and implement the selected system. First, in terms of design, the project team has to configure the ERP system to suit the particular organizational context. This involves mapping existing organizational processes, identifying the organizational processes that are embedded in the ERP software and then defining new organizational processes that 'fit' both the software and the organization (Soh, et al., 2000). This design process necessitates the creation of knowledge, or perhaps more accurately, the creation of new meanings. Dispersed and embedded organizational knowledge must be combined with the knowledge embedded in the ERP software, including technical knowledge and knowledge about 'best practice' organizational processes. Knowledge will therefore

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[2] Indeed, it may be more accurate here to state that data needed for innovation is dispersed, but we have selected to describe this as knowledge, on the assumption that readers will recognize that we are referring to the socially constructed meanings that individuals have developed through their experience (Galliers & Newell, 2001).

[3] In large organizations, like the one described in the case study here, there will typically be more than one project team, each focusing on a different part of the system of a different part of the process. However, for simplification, and because, in the analysis we focus on only one project team, we refer to a project team in the singular.

[4] These early events are not considered here.

need to be shared and integrated not only between members of the project team but also between others within the organization (Lee & Lee, 2000).

The team also has to ensure that the configured system is implemented in the various parts of the organization where it is to be used. This implementation is likely to involve modification to existing, or the introduction of new, organizational processes, as well as the introduction of the new hardware and software. In order to ensure that the ERP system is implemented and used, the project team will need to involve users and ensure their commitment to the project. In undertaking all of these activities the project team will have to focus on project priorities (Huang et al., forthcoming) in order to ensure that resources (financial and human) are available to allow project team members to complete the necessary activities.

Most fundamentally, the successful completion of these activities will depend on selecting project team members with appropriate knowledge, skills and expertise, so ideally project teams will be chosen so that their members have a mix of knowledge and capabilities in order to ensure team diversity and representation (Schneider and Northcraft, 1999; Shaw and Barrett-Power, 1998; Teram, 1999). We can refer to this as the intellectual capital of the team – the 'knowledge and knowing capability of the collectivity' (Nahapiet and Ghoshal, 1998). While intellectual capital and its mix across the team is important, it is unlikely that project team members will have all the relevant knowledge and expertise necessary to design the system and redesign organizational processes per se or to ensure that it is accepted and implemented by all those for whom it is intended. Rather these project team members will need to network with a range of other individuals in order to make sense of both organizational processes ('as is' and 'to be') and the ERP system and in order to gain commitment from those who will need to modify the organizational processes and use the system. In doing this they will be drawing upon their collective *social capital*. Nahapiet and Ghoshal (1998; 243) define social capital as "the sum of actual and potential resources within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through the network". It is these networks that provide access to the knowledge and skills of those in the wider organization. These networks will also potentially enable the project team members to

influence end users such that they gain their commitment and build up interpersonal attachment (Yoon et al., 1994). From this perspective then, the more social capital a project team has the better because social capital provides access to the necessary knowledge and provides a channel through which users can be influenced.

In a project team then, each individual not only has unique knowledge, skills and expertise, which can be drawn upon during the innovation process, but also a unique network which will therefore broaden the reach of the project team across the potential user community. Project team members need to mobilize this social capital in order to access the necessary knowledge and gain the required commitment. At the same time, they also need to build a community among themselves, since the success of the project depends upon close co-ordination, collaboration and knowledge sharing across this project team. In many project teams individuals will not have worked together as a unit before, so the development of the team into a community (Brown and Duguid, 1991; Wenger & Snyder, 2000), where individuals share and integrate their knowledge and experience, will require effort and commitment from both team members and their managers.

In light of these arguments, the aim of this paper is to explore a particular example of a project team involved in designing and implementing part of an ERP system in a large multinational organization. Of particular interest is the extent to which they used their social capital to access necessary knowledge for the system and organizational design and to gain user commitment. In analyzing this, we focus on how far, if at all, this team developed into a knowledge sharing community. We demonstrate the paradoxical effects of social capital: previously established network relationships actually had a negative impact on the development of a knowledge sharing project team community. Nahapiet and Ghoshal (1998) note that social capital is not a universally beneficial resource, and they give examples of where it can have negative consequences. Nevertheless, they focus on the benefits of social capital. The empirical evidence presented here suggests the downside to social capital.

RESEARCH METHOD: ETHNOGRAPHY

This empirical study focused on analyzing one element of a large ERP project, within a large global corporation – Quality Engineering Limited (QEL) - headquartered in

the Midlands, UK. In this company the implementation of the ERP system was extensive, involving systems integration across all of the company's functions. This study focuses on the HR functional ERP 'pillar'. One member of the research team was on site as a participant observer on many occasions over an 18-month period talking informally to project team members, attending project meetings and generally observing what was happening. In addition, semi-structured interviews were undertaken. The project team leader was interviewed approximately once a month, with the interviewing beginning shortly after he had been assigned to the role, and continuing until the project was effectively put on hold (see below). In addition, all of the ERP HR project team members (N= 8) and the process owners (N=7) were interviewed after the project had been on-going for about 9 months. These interviews were of about one hour's duration, were tape-recorded and later transcribed. In conjunction with the above relatively structured interviews, numerous informal interviews were conducted, often without prior arrangements. Conducting these informal interviews was important and useful to unravel insightful stories about the progress of the project.

The research method for this study was ethnographic, comprising a study of the culture(s) a given group of individuals more or less share (Van Maanen, 1988) and involving 'the direct observation of the activity of members of a particular social group, and the description and evaluation of such activity' (Abercrombie et al, 1994). Ethnography is usually conducted by a fieldworker who, for a lengthy period, "lives with and lives like" those being studied, whilst being aware of the dangers of playing too close a part in the research setting, that is, of 'going native' (Garfinkel, 1967). The ethnographic researcher is therefore charged with attempting 'to understand the fundamental meanings which are assumed strongly to influence the behaviors and longer-term patterns of their subjects' (Kakabadse, 1997).

We attempted to construct meanings from our observations of the subjective experiences of the everyday life of our informants in order to gain particular insights from their collections of descriptions and explanations. However, given our belief that theorizing has an important role to play in ethnographic work, we had as a research goal the provision of an analytic, theoretical or 'thick' (Geertz, 1973) description designed to reveal general features of the life of our subjects and their setting

(Hammersley, 1998; 23). We chose to do this in an integrated way, using a broad conceptual framework derived from theoretical reading to orient the exploration of activities observed and experienced in the fieldwork. These were then modified, developed, dropped and replaced as a process, with a recognition that a process of ongoing theorizing (Watson, 2000) was occurring as the investigation progressed. Thus, there was a dialectic relationship between inductive and deductive logic. The final ethnographic report is therefore part of the process of our social construction of reality (Berger and Luckmann, 1967).

CASE DESCRIPTION

Following the appointment of a new CEO, a decision was made to implement an organization-wide ERP system to replace approximately 1600 extant legacy systems at Quality Engineering Limited (QEL). These legacy systems comprised both off-the-shelf packages and systems developed in-house; some were interfaced with others, but many were stand-alone. This led to a considerable waste of resources and also meant that it was difficult to collect information at an enterprise level (or indeed even at a business unit level). As one interviewee stated, "In Quality Engineering Limited we work *around* the systems not *with* the systems". Using examples specific to HR, data on absenteeism was collected in many different ways in different parts of the business so that it was virtually impossible to either monitor this, or explore problem areas where intervention might have been useful. These, and similar problems across the whole of QEL, influenced the decision to implement an ERP system.

The introduction of SAP/R3, across all components of the business, was planned in two 'waves'. The HR function, however, appeared initially to have been left out of these plans and it was not until Wave 1 was well under way that it was recognized that much of the data needed for an integrated system were HR related (e.g., payroll, employee records, competency databases). The ERP HR project was therefore set up, falling between the two waves – not part of 'Wave 1', but planned to be implemented before 'Wave 2'. This was so because much of the data thus produced would be needed to create the level of integration that was being sought from Wave 1.

THE ERP HR PROJECT TEAM

The ERP HR project was initiated by the company senior HR director. He asked one of his corporate HR managers (Nick) to be the project leader. Nick had been specifically brought into the company seven years previously in order to set up a new HR system but had not had the opportunity to do so until now. Nick started the team recruitment process by engaging Caroline, who had reported to him in his previous role. He then proceeded to put out a general advertisement to recruit staff for the project team, as well as (and vitally) using his own networks to find people with relevant knowledge and experience. Six additional members were recruited to the project team: four QEL HR staff drawn from different areas of the company and two individuals from MDL, the outsourced IT function. In the next section we consider in more detail who was involved in the project team from QEL and their commitment (or otherwise) to the project.

Nick had worked with Caroline for some time so was aware of her skills and competencies in different roles. Given that QEL had previously decided to outsource the IT function, she was one of the few remaining individuals directly employed by QEL who had a combination of IT and business expertise. In particular, her skills as a business analyst with IT knowledge and HR understanding were exactly the combination that was required on the ERP HR project. She agreed to be on the project team, but only on a part-time basis whilst continuing to work in her previous role in HR planning. During our interview with her, Caroline stated that she had agreed to join the team for strategic career reasons. She had decided to have a baby some time in the future and thought that getting some SAP experience 'under the belt' would make it easier to find a job once she returned from maternity leave, whether inside or outside QEL. Likewise, she wanted to maintain her contacts in her functional department so that she could return there should she want to. She thus agreed to work in the new project, but at the same time remaining firmly attached to her functional role. In the event, Caroline had her baby mid-way through the project and a follow-up interview suggested that she had chosen to do this rather earlier than originally intended because she felt that the ERP HR project was not going as well as she had anticipated.

Bob had many years' experience as the HR manager to one of the Business Units in which the new HR ERP system was to be implemented. He felt that the project

offered a unique opportunity for a fresh challenge at what was a fairly late stage in his HR career. Surprisingly, although Bob had no IT knowledge (describing himself as computer illiterate), he told the interviewer he was first attracted to the job because of the systems element, but Nick soon put him straight about the content of the job. As Bob said, *"I said [to Nick] I just wanted to be in computers, in systems"* and Nick said *'That's not what it's about, what we need is somebody who has operated in the HR function, in the line, who knows how things currently work and has the relationships…' It sounded exciting. Here was a real opportunity to reform the way we do things within HR"*. Bob's previous job had been in the South West region of the UK, so the job transfer required a physical move. His wife remained in the family home and Bob obtained temporary accommodation in order to be close to the project. He had little subsequent involvement with those with whom he had previously worked, even to the extent of not knowing what had happened to the new HR manager who had taken over from him.

The HR ERP system was to include a payroll capability, so Project Manager Nick knew he would need someone with specialist knowledge in this area. He therefore gave a presentation about the project to the payroll management team, trying to encourage someone to join. Robin attended this presentation and, despite his recent promotion to Payroll Manager, agreed to join the project team. Like Bill, Robin saw this as an excellent opportunity to develop his IT systems skills, something he had wanted to do for some time. As he said, *"The main attraction for me to join the project was SAP, the system itself, it clearly seems to be the way forward. It's had a lot of publicity"*. Once joining the project (supposedly full-time), like Caroline, Robin maintained his links with his functional area and regularly returned to do work there whenever he was needed, explaining, *"I've been supporting the payroll function… with the actual modifications that are needed to the current payroll software"*. So Robin joined the project team, and like Caroline when she said she could always return 'home', he said *"I could always fall back into the payroll manager's role"*.

Susan had been working in an HR functional role and so had general knowledge of the HR processes at QEL. She was not happy in this role, however, and so applied to join the project team in order to get out of a line HR job that she did not like: *"It's more for myself really…it's what I can get out of it"*. However, once working on the

project she continued to look for other opportunities within QEL that would provide her with a more permanent role. This search intensified as the HR ERP project seemed to falter.

Rebecca was a placement student taking a business information systems degree who had been assigned to the project team. She had no ERP-specific knowledge but Nick had felt that this would provide her with valuable experience and that she could be useful in some of the more simple and mundane tasks that would need to be done. At the start of the project she was keen and eager, seeing it as a good opportunity to develop her skills. However, because she was given little opportunity over the course of the project to undertake more challenging tasks than administration, she became increasingly despondent. Then when the project got into difficulties, she was relieved when her placement period ended.

The two project members from MDL, the outsourced IT function, were assigned to work on this project as the technical experts. They had little relevant business-related knowledge, and, more importantly, neither had any previous experience of implementing SAP. They saw their role as merely translating and configuring the SAP system, based on the decisions made by the project team. As Glenda (one of the MDL project team members) said, *"All the business side of the project should be handled by QEL people. My direct involvement will only be with the relevant work package owners who are team members. We don't deal with anybody else in QEL. Our role on the project is to deal with the HR ERP team. And if there are any other people at QEL who need to be dealt with, then it's some member's role to do that. We're contractors, so 'what do you want us to do?' We'll bid for the work. Then we'll do the work."* So the MDL people were relatively detached members of the project team, despite being co-located. This was for them merely another IT project. Their detachment appeared to stem partly from the fact that both had previously been QEL employees but had found themselves now employed by MDL in the transfer process and partly that neither had seen an IT project through to completion within QEL, despite both having considerable experience in the company. This was because they had either been moved to another project before completion or the projects they had worked on had been abandoned.

While the project team members therefore had relevant and diverse knowledge and experience, their own goals and desires were also influential in their desire to join the project team. Nick himself was anxious to ensure that those getting involved did so because they were personally interested in the project. He was keenly aware that he was asking individuals for a high level of commitment, without offering any real job role security, so that when he made individuals an offer to join the team, he took great care to explain that this was a temporary project with no guarantees of success. Team members therefore only joined the project team if it suited their own personal agendas.

This influenced their behavior on the project. It was evident that most of the team were focused on maintaining strong network connections with their colleagues or were using their networks to scan for more permanent opportunities within QEL. They were much less likely to use their networks to fulfill project goals per se. The exception was Bob, who essentially cut himself off from his previous networks, neither using them for personal benefit nor for the benefit of the project.

This outward-facing propensity of the majority of the team members also meant that the networking between the project team members was limited so that the team did not develop into a strong knowledge sharing community. Each project team member worked independently on defining the work processes within their particular work package area (see below). As Robin said, "*We don't actually network together a great deal, we don't. We've got our own work packages and payroll for mine is quite standalone. There's obviously links with the person on the admin side, but as far as the team goes there isn't really a need very often to work together*". There was thus little or no attempt to work jointly on work process definitions, even though the team was co-located, and members were aware of the links between work package areas.

It can be seen, therefore, that the team consisted of individuals, all focusing on their small part of the project, with little knowledge sharing between them. Perhaps what was worse for some members of the team was that there was no social interaction either. As Rebecca reported, "*I know we've got a job to do, but how anyone can sit all day…at a computer screen… you know, there's no breaks or social chatter.. no social interaction at all. My team…they don't work as a team…they don't talk as a team, or*

they could never go out…my team don't go out, we don't even go to the pub at a lunch time". So the team could certainly not be described as a community of practice or a knowledge sharing community. Indeed, another member of the team (Robin) drew the team as a crossword box, with each team member ensconced in his or her own little box.

As seen, HR ERP project team members were assigned as 'work package owners' to look after a particular HR process (e.g. absenteeism, training, payroll) depending on their existing knowledge and experience. In addition, senior managers were assigned as 'process owners' on the basis of their particular role in the organization. So the Director of Human Resourcing was the process owner of the human resourcing work package, and so on. However, many did not get actively involved in the ERP project, to the extent that several did not know who their 'work package' owner. Some said they did not even understand the term 'work package owner' and a number of them could not name a single other process owner, even though it was essential that they collaborated with these other process owners so that they could see where there was potential for integration across processes. Furthermore, the HR Executive Director did not seem to understand or to be interested in the project. For example, there was a high profile internal HR conference where the ERP HR team had a big display of their work. The HR Director was attending the conference and was visiting the various stands but failed to come and talk to ERP HR project team members or to show any interest in the progress being made. This lack of engagement by the HR director appeared to discourage the work package owners and the process owners from working closely together to undertake an 'as is' and 'to be' mapping of HR processes, an important pre-requisite for the development of the ERP system configuration process.

As the project progressed it became clear that allocation of funding for the HR pillar of the ERP project was problematic and would have to be justified, in spite of the fact that no such justification had been required from any of those involved in the other functional pillars that were being implemented in Wave 1. Project team members started working on a cost-benefit analysis with the aim of justifying the expense of the HR pillar through cost savings. This was found to be difficult because it was not easy to quantify the benefits of having an integrated HR system. At the first presentation of

their justification, the QEL board was not convinced and would not release the money for the project. Instead, the project manager had to constantly find funding to keep the project going while they attempted to improve their justification. This happened several times over the next 12 months, with the HR ERP project being 'off' then 'on' again seemingly continuously. This was demoralizing for the project team and left them feeling insecure. Eventually, the project was put 'on hold' and the team was disbanded.[5]

ANALYSIS AND DISCUSSION

Before discussing the case, it is important to note that our findings are based on a single case study and therefore, by definition, do not meet the criteria of credibility (a measure of the degree to which findings across cases fit the data) or transferability (the extent to which the findings can be replicated across cases) for which Erlandson et. al., (1993) argue. Additional research, across multiple case studies is needed in order to verify the analysis developed in this paper (Eisenhardt, 1989). Nevertheless, this single case provides a basis for subsequent work in this area.

Social capital is considered by Nahapiet and Ghoshal (1998) to be generally beneficial for an organization. The assumption is that individuals will use their previously established networks to gain access to resources, such as knowledge, that they do not personally own but which are needed for particular organizational purposes. Here, the purpose was to design and implement an ERP HR system. The individuals on the project team did have considerable social capital that could potentially have been used in this beneficial way. Unfortunately, while individuals did mobilize their social capital during this period of observation, they did so more often to further their own private agendas rather than to provide resources needed for the ERP project. Thus, while Caroline and Robin put considerable effort in to maintaining ties with former colleagues and gaining extensive knowledge about the functionality of the SAP software, they did this to secure their own career options rather than to acquire information necessary for the ERP project or to try and convince these colleagues about the benefits of a new ERP system. Ex-HR officer Susan also used her personal networks, but again this was more often to seek out job opportunities than to gain

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[5] Although subsequently the project has been restarted following a merger.

knowledge or commitment for the ERP project.

In the literature on social capital there are two distinct treatments of social capital; one view describing social capital as a public good the other describing social capital as a private good (Leana and Van Buren, 1999). Researchers treating social capital as a public good see it as an attribute of a social unit and suggest that the benefit for the individual in enhancing and leveraging social capital is indirect and secondary (Putman, 1993). Those treating social capital as a private good consider how individuals use their social networks for direct personal benefits (Belliveau et al., 1996). From the private good perspective, social capital is created by rational, purposeful individuals who build this capital to maximize their individual opportunities and to further personal projects. Nevertheless, it is argued that within the context of a team or an organization it is possible to find some balance between the interests of the individual and the interests of the collective, although it is also argued that this will only be achieved if a conscious effort is made to balance the two (Leana and Van Buren, 1999). Very obviously, however, in the context of this HR ERP project team, this balance was not achieved.

We can use the notion of *strategic exchange* (Watson, 1994, Tansley, 2000) to understand why this occurred. When using strategic exchange as an organizing framework to make sense of organizational life, it can be seen that it is important to take account of the life projects and career expectations of individuals, as well as simply their competencies. With strategic exchange, the organization is viewed as a quasi-entity consisting of on-going human accomplishments and negotiated realities. Individuals within an organization, through their dialogues with each other and themselves, are seen to be strategically shaping their life careers, whilst at the same time, engaging in strategic organizational activities designed to enable long-term survival of the company. Individuals shape their careers, biographies and identities through 'strategic exchanges' with other people, with institutions and with their culture. This 'shaping of self' is a process of giving and taking from the world around one, to take one's self and one's projects forward into the future. At the same time, as employees within an organizational context, they are engaging in strategic organizational activities designed to enable the long-term survival of the company. Those arguing from a social network perspective make a similar point when they

argue that most economic behavior is embedded in social relationships (Granovetter, 1973). Applying this notion or strategic exchange to the case, those involved were particular people developing their own particular material and identity projects. Interviews confirmed that they believed that by being involved in the ERP project this would benefit some personal project of theirs. Other individuals with relevant competencies and expertise may not have joined the project team because they believed that involvement in the project was actually a threat, rather than an accelerant, to their life career. At the same time, for those who chose to be involved, as project team members they were expected to undertake activities that would lead to the fulfillment of the project goals.

In the event, however, project team members invested more time and energy in their personal projects than in the ERP project. Strategic exchange assumes that individuals trade with others in their environment in order to shape their personal careers and identities at the same time as they seek to fulfill organizational goals. This suggests a two-way interaction of give-and-take – the strength of my commitment to an organization is directly related to the strength of the commitment of key organizational actors to my (personal and organizational) projects (e.g. Chang 1999; Cohen, 1993; Huselid and Day, 1991). In this QEL case, commitment from the key organizational actors (the HR Director and the process owners) in relation to the ERP HR project was clearly lacking. This affected the core ERP HR project team as they did not feel that the strategic importance of the project was appreciated. *Priority maintenance* (Huang et al., forthcoming) was an ongoing effort and there were many indications that the project was not a central priority, especially for the HR director. The project team had to continuously justify their existence and there were many indications that this justification was not fully accepted. It is interesting to note in this context that Leana and Van Buren (1999) argue that ensuring stability in employment relations is a key way to ensure that the benefits from social capital are balanced between the needs of the individual and the needs of the organization. Employment practices that ensure stability help to build strong relational contracts (Rosseau, 1995) so that individuals feel secure and trust their employer. In the ERP HR team there was clearly a perceived absence of stability in relation to their employment on the project team.

Managers were not demonstrating commitment to the project team, so those individuals chose not to fully commit their time and effort to achieving project success. This included not mobilizing their social capital for the benefit of project goal fulfillment. They were able to 'get away with this' because the project leader adopted a laissez-faire approach, assuming the team members to be professionals, able to 'get on with their job'. So, in the absence of direct control and in a situation where team members felt that their positions were vulnerable, strategic balance was achieved by giving more weight to personal as opposed to project goals.

For the team members, the main way in which these personal goals could be fulfilled was to maintain and reinforce their existing networks so that their intellectual capital and commitment was evident to those who would be in a position to offer them new posts, should the ERP project fail or come to an end. This is because embedded in the pre-existing functional and hierarchical structure of QEL are a whole series of formal and informal linkages. Individuals working in projects, which stand outside these existing patterns of relations, can become isolated and marginalized. The rational response from the HR ERP project team members therefore was to ensure that they maintained their existing network relations within the existing social capital structures, especially given the precarious nature of the project. Tasks were divided between team members in a way that minimized the need for regular interaction and collaboration, undermining the nurturing of teamwork between members (Knights and McCabe, 2000). The result was that team members were focused more outward, away from the project, than inwards, towards the ERP project team so they did not develop into a knowledge-sharing community (Brown & Duguid, 1991). Team members were more concerned with maintaining their networks with former colleagues than in establishing close ties with the other project team members. They wanted to do this because of the uncertainty surrounding the innovation process (Spender & Kessler, 1995), and the temporary and precarious nature of the project. Their existing network was the 'lifeline', which would enable them to get back their job if the ERP project failed to find the necessary support. So in this project team existing networks, i.e. social capital, actually distracted from a focus on the project goals rather than facilitating the acquisition of valuable resources.

CONCLUSIONS

Nahapiet and Ghoshal (1998) argue that social capital can be transferred from one social setting to the next (they describe this as appropriable organization). So, while social capital is typically created (or destroyed) as a by-product of other activities in a particular social setting (Coleman, 1988), it can be transposed to other situations. The analysis presented here does not contradict this, but it does suggest that this appropriation can be problematic. Individuals have to choose to appropriate their existing social capital for some other purpose and the extent to which they choose to do this will depend on their perceptions of the ensuing strategic exchange. In the case considered here, project team members chose not to appropriate resources from their existing networks for the benefit of the HR ERP project. This did not mean, however, that they neglected these networks. On the contrary, they actively nurtured and developed these existing ties, but for their personal benefit. Indeed, their involvement in their existing networks actually detracted from their involvement in the ERP project. It is argued that this occurred because of the insecurity surrounding the ERP project, which meant that the strategic exchange was only balanced by an over-emphasis on personal goals. This suggests that the effects of social capital are ambivalent (Mueller, 1996) and that a strategic exchange perspective can be a useful heuristic device with which to consider the ways in which social capital will be appropriated within a particular context. In certain situations, the resources available through social networks may be invested for personal goal fulfillment, rather than for organizational goal fulfillment. In other words, if the members of a project team are constantly having to negotiate a rationale for their existence, successful collective action is unlikely without close monitoring. Here, in the absence of that monitoring successful collective action was not achieved.

In relation to an ERP, or similar, project the analysis presented here suggests that where there is a great deal of insecurity surrounding the funding and priority of the project, those involved as core team members, are unlikely to appropriate their social capital in the kinds of beneficial ways that Nahapiet and Ghoshal's analysis would suggest. While security on a project will always be problematic because of its temporary nature, strong support and commitment from senior managers and a secure funding allocation may at least alleviate the extreme insecurity experienced among the case project team.

Of course, the issues of adequate resources (or high priority) and strong commitment and support from senior managers have been previously identified in the literature as central to successful innovation in general (Eby et al., 2000) and IT implementation in particular (Thong et al., 1996). In this paper, by considering the more detailed analysis of a project team working in a situation where resources were precarious and where strong commitment was absent, we have been able to demonstrate and analyze the impact of this absence. Such micro level analysis is, thus, helpful for developing our understanding of the processes likely to emerge in contexts of low priority maintenance and low commitment. Here we focus on processes related to the appropriation of social capital and the development of a knowledge sharing community. Subsequent research will need to verify these findings but also consider other social processes that can be influenced.

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