Organisational Strategy, Structure and Culture: Influences on Organisational Knowledge Sharing

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ABSTRACT

This paper explores the interplay of organisational strategy, structure and culture, and the resulting impact on organisational knowledge sharing. The paper reports some of the findings from an interpretive case study of knowledge sharing in the information technology services division of a large Australian education service provider. The study indicates that when organisations adopt strategies of restructuring and outsourcing, trust is damaged, social networks are disrupted, and knowledge sharing is impacted. The findings highlight that a knowledge sharing culture cannot be considered in isolation from a consideration of evolving societal forces and the organizational strategies and structures that flow from them.

INTRODUCTION

While the role of organisational culture as an enabler of organisational knowledge sharing has been a subject of considerable research interest in recent years (e.g. Gold *et al*, 2001; Hendriks, 2004), organisational culture should be studied in context. However, very little published research exists on the complex interplay of societal forces, organisational strategy, structure and culture, and how such shaping impacts knowledge sharing. Lacking such an understanding, companies may be frustrated when attempting to develop knowledge sharing cultures.

This paper explores how societal forces, organisational strategy and organisational structure shape organisational culture and thus affect organisational knowledge sharing. The remainder of the paper is structured as follows. First, we briefly review representative sources on organisational studies and knowledge sharing and provide a simplified model of organisational influences on knowledge sharing. After introducing the research design, partial findings are provided from an analysis of knowledge sharing in the Information Technology (IT) division of a large Australian education service provider (other findings are in Brain (2004) and will be the subject of future publications). Finally, academic and managerial implications are discussed, and suggestions offered for future research.

THEORETICAL FRAMING

As shown in figure 1, and as will be argued in this section, macro forces shape modern organisations and through their dimensions, influence knowledge sharing. Global pressures on firms include globalisation, increased need for differentiation, workforce change and electronic business, leading to new organisational strategies such as knowledge sharing, economic restructuring (downsizing), greater specialisation and outsourcing.

At the centre of the figure is organisational knowledge sharing. Modern organisations are complex knowledge domains where tacit and explicit knowledge are distributed throughout firms rather than residing in any single person or repository (Tsoukas, 1996). In such companies there is a need for sharing dispersed knowledge to locations where it can be

integrated and actioned. Knowledge sharing has been defined as a complex process involving the contribution of knowledge by the organisation or its people, and the collection, assimilation and application of knowledge by the organisation or its people (Huysman & De Wit, 2002).

Effective knowledge sharing relies on the existence of a knowledge sharing culture. Formal closed cultures and cultures that reward individual (rather than collective) knowledge promote knowledge hoarding (Husted & Michailova, 2002), while environments of collaboration and trust encourage the free flow of knowledge (Hendriks, 2004). Uhl-Bien and colleagues (2000) and other experts have also highlighted the importance of social capital in developing relationships that facilitate knowledge sharing. Four types of culture are often found in modern organisations, each leading to different types of knowledge sharing – clan, entrepreneurial, market and bureaucracy (Hendriks, 2004). Sub-cultures may also evolve through differentiation based on individual work groups (Huang *et al*., 2003) or occupations, such as information systems (Guzman *et al*., 2004).

Some experts have further noted the impact of organisational structure on organisational culture and knowledge sharing. Organisational structure addresses the relationship between business units as well as their organisation to facilitate goal attainment and includes the level of specialisation of units, standardisation of procedures, locus of authority (centralisation or distribution), recording of policies and rules, and incentives. Hierarchical structures enable the coordination of specialised units by knowledge shared as a result of employment-based relationships (Tsai, 2002). According to Tsai, in such structures some managers systematically withhold knowledge from employees for political reasons, leading to mistrustful cultures and limited vertical knowledge sharing. Further, a structure of centralisation combined with specialisation can result in limited inter-group knowledge sharing (Tsai, 2002).

As mentioned earlier, macro forces shape new organisational strategies

Figure 1. Organisational Influences on Knowledge Sharing (Brain, 2004)
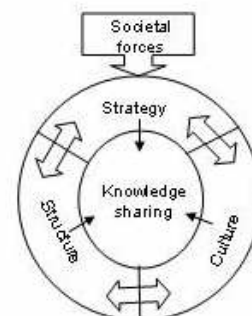
including economic restructuring (downsizing), increased specialisation, and outsourcing. Such strategies may influence organisational structure, culture and knowledge sharing. *Economic restructuring (downsizing)* may disrupt social connections and patterns of openness, honesty and trust, with some employees becoming individually focused (Mishra & Spreitzer, 1998) as well as protective of their knowledge, which they believe represents their unique value to the company (Sarkis *et al.*, 2000). *Specialisation* is a popular organisational strategy where business units and groups are organised around specialised skill sets. Ever deeper knowledge is required by today's competing knowledge workers and specialisation thus persists (Ridderstrale & Engstrom, 2000) while leading to a specialist culture (Becher, 1990) where there is 'separation of concerns' and reduced inter-group sharing. *Outsourcing* is an organisational strategy that increasingly accompanies restructuring. In the software industry, teams of contracted consultants (contractors) are often employed to analyse, develop, operate and/or manage a client's business processes. Such contractors may be located remotely but are frequently co-located on the customer firm's premises. The addition of contractors on- or offshore disrupts client social networks and can motivate hostility and constrain knowledge transfer (Warner & Brown, 2005).

RESEARCH DESIGN

We conducted a single interpretive case study in the IT services division 'ServIT' (a pseudonym) of a large Australian education services provider 'LearnTech' (a pseudonym), as part of a project investigating organisational culture and knowledge sharing (reported in detail in Brain, 2004). A case study approach enables the researcher to investigate in-depth issues in context and is useful for theory building and providing revelatory results (Galliers, 1992). The IT services division at LearnTech was selected as it had been subjected to organisational strategies of economic restructuring and outsourcing, and its IT services division had subsequently been significantly downsized. Moreover, IT professionals possess a good understanding of knowledge technologies, thus enabling the technological issues to surface.

We studied six teams within the IT services division – network communications, technical support, application services, online publication, business systems development and application development. In 2004, one of the researchers collected and recorded data from ten semi-structured single interviews of one and a half hours' duration, observations of teams at work, and background documents. Two managers, four developers, two technical support workers, and two technical programmers were interviewed, with one participant employed as a contractor.

Definitions of key terms were provided and questions were based on an extensive literature review of the main reference domains (a brief summary was presented in the previous section). Questions focused on exploring the structural and cultural context of knowledge sharing against a background of economic restructuring (a complete question set can be found in Brain, 2004). Using qualitative content analysis techniques, one of the researchers systematically discovered coded categories in the interview transcripts, drawing on the theoretical foundation for guidance in identifying categories. The coded categories were inductively developed over iterative readings, and grouped into themes at the end of analysis. A second researcher independently analysed the data and the two sets of results were compared for reliability. As they were similar, results were integrated. Data from the remaining sources (recorded observations of teams at work, and documents relating to the organisation of ServIT) were then employed for triangulation to check and establish validity and enhance themes.

FINDINGS

Background at LearnTech and ServIT

LearnTech plans, develops, delivers, manages and supports learning IT services and web sites for thousands of client corporations and their end-users. Among other strategic objectives, LearnTech aims to achieve effective financial resourcing and deploy resources to the most important areas of the company in order to survive economically in a competitive environment. Key services provided by the IT services division ServIT include the development and management of client web sites. The ServIT unit is based in a major Australian city and has approximately 100 employees in teams, comprising a mix of employed and contracted IT personnel. Teams within ServIT are specialised and are organised within a wider organisational hierarchy.

Strategies Impacting Culture at ServIT

Three organisational strategies impacted the structure, culture and knowledge sharing of ServIT: *specialisation*, *restructuring* and *outsourcing*. First, each team specialised in a particular IT area. The level of specialisation was such that teams operating within ServIT were unaware and disinterested in what other teams were doing. For example, some participants were unable to identify the activities of people in other teams. This high level of specialisation together with the restructuring strategy had precipitated the development within ServIT of a multiskilling strategic initiative to better transfer resources and link teams. However, this initiative had so far had little impact on developing greater inter-team ties, although interviewees were pleased to have the training opportunities. Specialisation had also led to less need or occasion to share knowledge across teams. For example, one participant explained:

We do the back-end part and they don't really need to know how that works. They make it pretty in the end and accessible, and we don't dictate to them how to make it pretty!

Second, a restructuring strategy had been in place for many years, and a number of restructures had been carried out over that time, the most recent having taken place only a year prior to our study. The resulting redesign had led to job redundancies with some teams losing fifty percent of their members. According to participants, the restructured teams were under-resourced, some more severely than others. Third, in order to re-deploy IT resources where they were needed and also reduce expenditure (both of which were LearnTech organisational strategies), the company employed contractors with cutting edge skills from an IT consulting firm to work with LearnTech personnel in the ServIT teams. However, this strategy had introduced some tension surrounding issues of intellectual property.

Culture at ServIT

The culture in ServIT that had developed as a result of these three strategies comprised team subcultures that were clan-oriented in that each team exhibited clan-oriented features (Hendriks, 2004). For example, participants in some teams referred to good team work and socialising within their teams, with such socialising slowly having improved after the restructure a year earlier:

...initially [after the restructure] it was more formal, [in that] once every couple of months we'd go out. But now people are actually friends outside of work as well, so there is no need to continue anything formal... it happens anyway.

An exception to the socialising trend was the network communications team which had experienced severe resourcing constraints until recently:

We just didn't have time... we'd be working crazy hours. We just didn't have time to do that socialising thing.

Other features found that were of a clan-orientation (Hendriks, 2004) included closed sub-cultures that did not share their specialised knowl-

edge with other teams, and knowledge sharing according to perceived relevance of the knowledge to others. ServIT also exhibited some signs of a bureaucratic culture (Hendriks, 2004) such as fixed working methods, illustrated by the following comment:

I was very keen to get stuff documented... because I knew that management would require that sort of analysis, and if you can't justify and describe what you do, it means nothing around here.

In addition, some evidence of an individualistic culture existed:

I'm sure people have hidden agendas, but I don't think they'll actually show that they're competing for positions.

Effects of Restructure on Subcultures

The existence of team-based subcultures had led to difficulties after the job changes:

the newcomers coming in [from other teams] have had to let go of previous roles and previous tasks, as the way they do things is not suitable for the way we do things in network communications.

Further, trust had been severely affected by the restructure and had proven slow to rebuild:

When the restructure was going on, everyone was panicking about their positions and where they were going in the future, so they wouldn't give out certain information to people to help them with their jobs because otherwise they would be out of a job.

Indeed, in a recent study of IT Professionals, a lack of trust in supervisors, and perceived unfairness, were shown to promote economic rather than social exchanges among IT professionals. leading to lower levels of organisational citizenship (Moore & Love, 2005).

Finally, a lack of resources after the restructure had led to employees being short of time. A time-challenged culture had developed as a result. All these changes impacted knowledge sharing, as we now discuss.

Impact on Knowledge Sharing

The shaping of team-based subcultures by the strategies of specialisation, restructuring and IT outsourcing had a number of important ramifications for knowledge sharing:

- Knowledge tended to accumulate within silos based on teams:

   the organisation still tends to operate in little units, and the knowledge stays there.

- However, management were fully aware of this issue and were trying to break down the silos through training (multi-skilling) and presentations to teams.
- When knowledge was needed, employees not understanding what people in other teams did at work inhibited asking them to share their expertise. Due to lack of time resulting from fewer employees remaining after the restructure, people did not have time to find out what others were doing. When employees looked at other teams' web sites to learn more about them, they found that each team had developed its own jargon and internal dialogue and this was sufficient to dissuade visitors from lingering, exploring and learning.

- Knowledge was widely distributed inside and outside the firm. Sources of knowledge included: developers, supervisors, customer organisations, vendors, team members, external authorities, and other internal groups. This led to some effort being required to locate and acquire missing knowledge when it lay outside one's team.
- When knowledge was needed from outside a team, electronic channels were often used by workers. Participants were unaware whether the knowledge needed existed within the firm due to the highly specialised and clan-oriented cultures. Electronic channels used for knowledge seeking included searching the World Wide Web, network hard disk drives, telephone, email and online chat. An online forum was used to collaborate and share knowledge with external end-users at the client companies. The Web was enormously popular with participants as the first port of call, for problem solving and searching for complex sophisticated technical information. Intranets were often team-based knowledge and information sharing tools, and had evolved into silos. Telephones were rarely used for knowledge sharing. Email was a popular channel for intra-team sharing. Face-to-face channels were largely used for intra-team knowledge sharing and for sharing between others who had established social relationships through current work (eg. business system development) or from previous work roles in other teams. Individual motivation to share knowledge personally was often altruistic and self-actualising, as was found also in (Lichtenstein & Hunter, 2006).
- External sources were used to obtain technical knowledge and information that did not, to the participant's knowledge, exist within the firm. For example:

I couldn't get it [knowledge] off anyone in here, so I've gone totally out of the organisation altogether. Or, if I know a friend who works in IT somewhere else, I'll email them or speak to them.

- After searching the Web and databases and consulting other members of the same team, seeking knowledge outside the firm was the next step. Looking inside the company (outside their team) for knowledge from people they did not know or trust was not mentioned by participants as a strategy used to find knowledge.
- Knowledge was sometimes filtered vertically in that some managers did not share with employees:

I don't have access to everything [the managers] have got access to and I ask, 'Why?' and it's just, like, 'You don't need access to that'. But it may help me with my job, so it's frustrating in that sense. You feel like you're being spoon fed, or you've got the drip method!

- One manager explained that confidentiality could be an issue:

...there's a level of trust between yourself and management and there's a level of trust between yourself and your subordinates, and your management can tell you things in confidence, so you can't breach that confidentiality. You just have to tell them [team] 'Look, I can't explain things right now. You'll know in due course.' So people have to respect that.

- As a result of a strategy of IT outsourcing, social networks were disrupted and issues of intellectual property rights arose. Knowledge was not always shared by contractors, raising further tension:

Occasionally, you'll have people come in with a skill set that they just won't share. They'll do their job and then they'll take it [skill set] away and you can't actually force a contractor into sharing information – you just can't. .. There tends to be a lot of tension when that occurs because people think, "Well, wait a minute.

We're buying your expertise. We own the intellectual property of what you're doing, on that basis.

CONCLUSION

This paper has reported a pioneering attempt to understand the interplay of organisational strategy, structure and culture and the resulting impact on organisational knowledge sharing. While the findings are not immediately generalisable due to being based on a single case study, they indicate that when organisations adopt strategies of restructuring and outsourcing, trust among employees is damaged, social networks are disrupted, and knowledge sharing is impacted. When restructuring is combined with strategies of specialisation, teams can become insular and horizontal knowledge sharing may be affected. This study further suggests that when employees cannot easily find knowledge needed from other employees due to a less open culture, they will turn to the Internet and technology-mediated knowledge resources for this knowledge. Further empirical studies are needed to explore these issues more deeply and to seek greater generalisability. To conclude, this paper suggests that companies should not consider shaping a knowledge sharing culture in isolation from a consideration of evolving societal forces and the organisational strategies and structures that flow from them.

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