KNOWLEDGE SHARING AND COMPUTER SUPPORTED COLLABORATIVE WORK: THE ROLE OF ORGANISATIONAL CULTURE AND TRUST

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Knowledge Sharing, Computer Supported Collaborative Work, CSCW, Organisational Culture, Trust.

Abstract

Knowledge management and especially knowledge sharing are popular topics in the management literature. Sharing and accessing knowledge wherever it is located and whenever it is required is crucial to organisations operating in a business environment characterised by globalisation. We argue that computer supported collaborative work will enhance and facilitate knowledge sharing. However, we also acknowledge that successful knowledge sharing is not primarily dependent on collaborative technologies. Thus, in addition this paper examines organisational culture and trust and their role on knowledge sharing.

Key words: Knowledge Sharing, Computer Supported Collaborative Work, CSCW, Organisational Culture, Trust.

1. INTRODUCTION

The current business environment is characterised by globalisation where hyper-competition, speedy technological changes and shorter product life cycles are the norm (McEvily and Chakravarthy, 2002). Therefore, the focus is shifting from hierarchical organisations, to organic and nurturing types of working. The latter form of organisation would enhance the harnessing and sharing of organisational knowledge to collective solve problems or provide quick responses to customer demands (Abell and Oxbrow, 2001). Organisations in the industrial economy depended on the combination of labour capital, and machines; tangible assets that do not provide sustainable competitive advantage in the current business environment, where knowledge and information are the main sources for a sustainable competitive advantage. The "knowledge economy" largely concentrates on the ability of the organisation to utilise information and communications technology and manage the harnessing and sharing of knowledge (O'Dell, Wiig, and Oden, 1999; von Krogh, Nonaka and Aben, 2001).

Whilst knowledge sharing is popular, an examination of knowledge sharing, computer supported collaborative work, organisational culture and trust in an interrelated manner is scant in the management literature: Therefore, this paper seeks to fill in this gap. The paper is organised as follows, we start with a brief overview of the literature on knowledge management, section two describes knowledge sharing and its importance, section three briefly explains computer supported collaborative work and its importance to knowledge sharing. Sections four and five discuss organisational culture and trust respectively. We subsequently outline further research avenues.

2. KNOWLEDGE MANAGEMENT

The notion of managing knowledge expanded rapidly during the 1990's (Despres and Chauvel, 1990). Numerous journal articles have appeared on the subject, as well as special issues of journals devoted to the concept (see for example the Winter Special Issue of the Strategic Management Journal, 1996; and the California Management Journal, 1994). In the academic world the interest in knowledge management crosses disciplines, namely: computer science, sociology, management science, psychology and

philosophy (McAdam and McCreedy, 1999; Martensson, 2001; Argote, McEvily and Reagans, 2003). Resulting in a large volume of published articles, and a variety of descriptions and explanations of knowledge management (Swan, Newell, Scarbrough and Hislop, 1999; Lanteenmaki, Toivonen and Mattila, 2001).

Knowledge management is making sure that the right information reaches the right people at the right time (Davenport, 1994). This definition adopts the view of knowledge as stock that can be captured, packaged and delivered where and when it is needed (Dove, 1999). However, other scholars describe knowledge management as the identification and harnessing of knowledge and or of supporting people and structuring technology. These definitions acknowledge the input of individuals in making knowledge management and its sharing effective (Davenport and Volpel, 2001).

3. KNOWLEDGE SHARING
The complexities of knowledge and the lack of a common definition are well documented in the management literature (Spender, 1996; Blackler, 1995). For example, Nonaka and Takeuchi (1995) define knowledge as justified true belief and Sveiby (2001) describes knowledge as the capacity to act. In addition, organisational knowledge is often classified as tacit and explicit. Explicit knowledge is knowledge that is easily codified, articulated and objective. In contrast, tacit knowledge is not easily codified, difficult to express and subjective (Nonaka and Takeuchi, 1995; Nonaka and Konno, 1998).

Knowledge sharing, and not just owning knowledge is linked to the competitive advantage of the firm in the organisation literature (von Krogh, Nonaka and Aben, 2001). As noted by (Mueller and Dyerson, 1999) Knowledge that is not shared slows innovation in organisations (Teece, 1998). In addition, Hendriks, (1999:92) states that "Knowledge sharing presumes a relationship between at least two parties" The owner of the knowledge shares through the process of externalisation, and the recipient internalises knowledge. The former can involve writing books, meetings and or performing tasks, whilst the later, can take the form of observing others, learning on the job, reading books and accessing and assimilating knowledge from knowledge data bases (Nonaka and Takeuchi, 1995; Hendriks, 1999). Tacit knowledge cannot be shared, as it never leaves the brain of the individual where it resides. When an individual leaves the firm, the tacit knowledge goes with them (Tsoukas, 1996). On the other hand, knowledge can be acquired and shared through the processes of externalisation and internalisation, voluntarily or unconsciously (Hendriks 1999). Firms are encouraging individuals to share knowledge, so that when an employee leaves, the knowledge remains in the firm for future reuse (Tsoukas, 1996).

Focus in western organisations had been on the codification of knowledge (Nonaka and Takeuchi, 1995). Organisations invested in technologies to store hard knowledge for use at a future date (Davenport, 1994). However, Sutton (2001) noted that explicit knowledge is not sufficient to impact on the bottom line of the organisation. Yet, explicit knowledge remains relevant to organisations because it is easily transferred (Kogut and Zander, 1992). Hildreth and Kimble (2002) emphasised the importance of combining tacit and explicit knowledge in delivering positive results for the organisation. Organisations

should therefore seek and share a combination of tacit and explicit knowledge with suppliers and other parties in the value chain to satisfy customer demands in a highly competitive environment (Lam, 1997). The dissemination of knowledge would require not just new forms of organising work but also the effective and efficient use of information and communications technologies to support the new forms of working with other parties that are geographically dispersed.

4. COMPUTER SUPPORTED COLLABORATIVE WORK

Computer Supported Collaborative Work (CSCW) is referred to as a 'new field of scientific research and information technology application' (Bannon, 1992:1). However, Computer supported co-operative work lacks a common definition (Wilson, 1991). An attempt by Schlichter, Koch and Burger, (1997) refer to CSCW as a generic term covering application of information technology in the support of co-operative work groups. This definition captures the essence of computer supported collaborative work. As Grudin, (1994) revealed, it is a research area attracting scholars from several disciplines such as computer science, cognitive science, psychology, sociology and management information systems. This paper whilst not dwelling on finding a common definition, argues that computer supported collaborative work present organisations and individuals opportunities of sharing knowledge whenever it is required and wherever it is located (Lipnack and Stamps, 1997). However, successfully exploiting these opportunities would depend largely on an organisational culture and trust that supports knowledge sharing. The next sections describe organisational culture and trust.

5. ORGANISATIONAL CULTURE

Organisational culture is a complex concept that has been researched extensively, spurning various perspectives (Ogbonna and Harris, 2002). In addition, no commonly agreed definition of organisational culture exists in the management literature (Alvesson, 2002). For example, organisational culture is historical and reflects the beliefs of the owners of the firm and it is the glue that binds individuals together (Mwaura, Sutton and Roberts, 1998). Furthermore, some aspects of organisational culture are highly visible, while others are salient; other aspects are taken for granted by members of the organisation and often difficult to change (Alvesson, 2002). Schein, (1996:231) noted, "organisational culture is shared tacit, taken for granted ways of perceiving, thinking and reacting". It is debatable that accepted ways of thinking are passed on to new members through socialisation, informally through story telling and gossip and formally through induction training. Yet, if it occurs and if for example the way of thinking is against sharing knowledge outside the department or amongst themselves, organisations will have a mammoth task in trying to make individuals share knowledge.

According to (Alvesson, 2002), organisational culture is difficult to change as it evolves over a period of time. In addition, within the organisation individuals develop sub cultures that may work against the existing corporate culture. Where the norm is not to be receptive to knowledge from other parts of the organisation, emphasis will be on developing knowledge within the unit. Subsequently, this encourages the 'not invented here' syndrome, and prevents knowledge from cascading amongst other individuals in the organisation (Mwaura, Sutton and Roberts, 1998). The problem of sharing knowledge

outside the organisation is magnified by the number of different subcultures individuals have to contend with (Doherty and Perry, 2001).

Organisational culture over a period of time conveys a sense of identity to individuals in the organisation; and helps to sustain a sense of shared meanings (Deal and Kennedy, 1982). Differences in shared meaning amongst individuals would be problematic. The lack of a common perspective, and not seeing where their jobs fit in with the whole picture of the organisation will make if difficult for individuals to want to share knowledge. Furthermore, the absence of shared meanings will leave words and terms used in knowledge sharing open to numerous interpretations, as the context and situations in which knowledge is shared is different from ones where the knowledge originates from. A common purpose and a sense of shared meanings help in building trust to share knowledge (Bechky, 2003). The next section describes trust and its importance to knowledge sharing in the organisation.

6. TRUST
A review of the literature shows trust to be well discussed amongst researchers (Mayer, Davis and Schoorman, 1995). Ghoshal and Barlett, (1994), noted that trust is fundamental to an organisation. Trust is also said to be crucial to strategic alliances and for successful relationships (Peters and Waterman 1982). Furthermore, it is suggested that trust enhances positive behaviour (Gambetta, 1988); promotes organisational informal and formal network relations (Miles and Snow, 1992); reduces harmful conflicts, transaction costs and enhances the formulation of informal groups (Meyerson, Weick and Kramer, 1996). Due to various approaches, it is very difficult to find a common definition of trust in the literature (Rousseau, Sitkin, Burt, and Camerer, 1998). Trust is defined as "as an expectancy held by an individual or group that the word, promise, verbal, or written statement of another individual or group can be relied on" (Rotter, 1980:1). In addition, trust is the expectation that the other party will perform a particular action important to the trustier, irrespective of the ability of the trustier to monitor or control the actions of the other party (Mayer, Davis and Schoorman, 1995). We argue that if the recipient of knowledge is not convinced that the source is competent and trustworthy, it is unlikely knowledge from that particular individual will be accepted (Huber, 1991).

In addition, if on the other hand the owner of the knowledge is not confident or does not trust the seeker of the knowledge to reciprocate in the near future, they may choose to hoard their valuable tacit knowledge. Knowledge that is unarticulated, salient and valuable is reported to be very difficult to share (Szulanski, 1996). Tacit knowledge requires a lot of effort to be invested by the owner of the knowledge and the seeker of the knowledge to enable its flow from one party to the other (Nonaka and Takeuchi, 1995). Where experience is being shared, it amounts to a lot of time and effort spent observing and learning on the job, explicit knowledge on the other hand is codified and in the form of written documents or stored in databases. The sharing of explicit knowledge in this instance depends on the willingness of the individual to use the technology to access the databases (Hansen, 1999). Grudin, (1994) noted, that whilst the benefits of using technology are not always equal for individuals using the technology. Its success often depends on the collective contributions of individuals involved in the use of the technology to complete a project or task.

7. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

This paper sought to examine knowledge sharing, computer collaborative work and the role of trust and organisational culture. We noted that whilst technology is in no doubt important in supporting knowledge sharing, the role of the individual, organisational culture and trust are no less important and are interrelated. In addition from our discussions above we came to the conclusions that:

Organisations are yet to encourage cultures that support knowledge sharing and individuals within organisations are still reluctant to share especially tacit knowledge. This is because knowledge is still seen as a security against job loss. In acknowledging that knowledge is crucial, it is important that organisations share knowledge with suppliers, customers and other organisations. If the knowledge gaps left by downsizing and trying to create lean organisations are to be filled.

We also argued there is a link between organisational culture, trust and knowledge sharing. If culture is the way individual do things in the organisation, encouraging and reinforcing a culture that supports knowledge sharing will ensure knowledge sharing becomes 'the way things are done' in the organisation. In addition developing a sense of shared meanings and a common goal will help develop the trust that is needed and vital in sharing knowledge. We revealed that information and communications technology would play a vital role in knowledge sharing. This is important as knowledge sharing is not limited to physically co-located individuals but open to individuals that are required to partake in knowledge sharing and are geographically dispersed all over the world.

There are however obvious limitations to the above conclusions. Further empirical research needs to be undertaken to accept or reject the above conclusions. In addition, more examinations utilising case studies are required to get an in-depth account of knowledge sharing, organisational culture, trust and computer supported collaborative work and how they are interrelated.

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