Enabling Knowledge Transfer Between Is And Business Personnel

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ABSTRACT

Knowledge transfer between IS and business personnel has been identified as an important precursor to innovation. Studies in IS have strongly recommended that IS and business managers cooperate more closely to foster knowledge transfer. These studies urge senior management to search for new ways to promote co-operation between IS and business managers to enhance the value they create. However, the literature of information systems suggests that substantial discord exists between IS and business groups resulting in erection of barriers to knowledge management. The relationship has traditionally been poor, a problem characterised by a lack of mutual understanding and trust. This paper explores the conditions necessary for cooperative relationships between IS and business managers that will foster knowledge transfer. Factors involved in the dissolution of knowledge transfer are also explored. The paper also provides recommendations for senior managers in fostering knowledge transfer environments.

Keywords: *locus of control, symbolic competition, IS management, Collaboration*

INTRODUCTION

IS research has identified the importance of co-operation between IS and business managers (Elam, 1988; Swanson, 1988; Rockart and Short, 1991; Boynton et al., 1992;). Research by Remenyi et al. (1997) and Robinson et al. (1998) suggest that there is a degree of tension between IS departments and other business functions in many, if not most, organisations. This discord has been reported widely in the 1990s (Nelson and Cooprider, 1996; Vidgen, 1997; Flynn and Jazi, 1998, Peppard, 2001). These studies urge organisations to search for new ways to promote co-operation between IS and business managers to enhance the value they create.

According to Grindley (1992), IS managers have developed their own values, working habits and reward systems that are different from business personnel. Major problem caused by the divide is that different groups become affiliated with specific sides, and distinguish themselves by associating positive characteristics with their own side and negative characteristics with the other (Robinson et al., 1998). In the early 1990s Niederman et al. (1991) conducted a series of questionnaire surveys. The board members in information management ranked the need to develop more co-operative relationships between IS and business managers one of their top priorities. Grindley (1992) reports similar results of a survey conducted jointly by Price Waterhouse and the Financial Times. UK IS senior managers claimed that their main problem was the tensions between their IS and business managers. Business managers claimed this was due to the failure of IS managers to appreciate the business implications of their own technology. The study concluded that the IS/business was a key factor in limiting the successful utilisation of IS in their companies. Furthermore, both IS and business managers blamed each other as the cause of the problem. A similar questionnaire study was conducted by Galliers et al. (1994). One of the conclusions drawn by the authors, based on a response from 98 senior managers, was that the historical repercussions of the tensions between IS and business managers were important factors in information systems management. Whilst, Henderson and Venkatraman (1993) report that IS managers are under pressure to integrate the management of IS into various business departments. The lack of co-operation between the IS and business managers was still viewed as a contributory factor in the effective development and use of IS (Nelson and Cooperider, 1996).

The challenge to develop closer cooperation between business and IS managers has been tackled by various methods over the last two decades. At the group level the composition of steering committees brings the IS and business managers together in-group situations (Drury, 1985). User participation (Hunton and Beeler, 1997) represents other proposed solutions to

the problem of poor relationships between IS managers and their business counterparts. In participative development, business managers' representatives participate in the software development process, typically as members of the development team. The participative approach arose out of the socio-technical approaches to computing championed by Mumford (1987, pp. 59-77). Other approaches to bring together business and IS managers have been proposed since the 1980s; prototypes (Robey and Markus, 1984); third party interventions (Debrander and Thiers, 1984); and hybrid managers (Earl, 1992). Unfortunately, these and other methods have not resulted in an alleviation of the tensions (Taylor-Cummings, 1998).

CHANGING ROLE OF IS DEPARTMENTS

Primarily there are three underpinning issues that have acted as catalyst for changing role IS departments. First, IS departments have had their budgets trimmed and manpower resources have been reduced (Earl, 1992). The cuts in budgets, resources and staff coupled with the re-structuring of IS activities has led to low commitment among IS/IT staff to their organisations (Taylor Cummings, 1998). Hence, IS managers believe they are under-valued by the senior management and there is evidence to show they are not participating in their organisation's business planning process (Moynihan, 1990). Second, the rise of end-user computing has resulted in business managers developing their own software or buying in 'off-the-shelf' software. This packaged software is a reasonable alternative to in-house development for business managers. The potential effects of more 'user-friendly' development tools; with these it could be argued that the need for very technically competent staff is removed (Taylor-Cummings, 1998). In addition, business departments are increasingly performing various IT activities themselves, such as information planning, PC user support and the implementation of new (sub) systems. IT organisations are therefore seeing some of their traditional tasks disappear or diminish in size (Han, 1998). Furthermore, it is argued that Information systems are developed and implemented in order to deliver business benefits, and therefore the individuals or departments who are attempting to improve their efficiency, effectiveness or strategic potential should own these (Remenyi et al., 1997). Finally, an introduction of a new

information system is often a political process as IS and business managers attempt to adjust their computing arrangements in an attempt to change existing power relations (Kling and Scacchi, 1982).

LOCUS OF CONTROL

Behesti (2000) aptly captures the changing role of IS departments. He concludes, the movement of IS power from centralised departments to corporate users could conceivably spell the end for such departments. Centralised IS departments provided IS managers with much of their power within organisations. These departments were the sole repositories of IS expertise and they acted as the exclusive, monopolistic supplier of information services to the firm. One of the pivotal characteristics of IS groups has been their ability to provide a service that was unique and could not be imitated. Heckman (1998) claims that many large organisations have centralised IS departments with a structure much like that of the traditional organisation. IS personnel are becoming increasingly subservient to their organisations (Remenyi et al., 1997). There is an increasing acceptance that knowledge of the way forward no longer resides in any one group of individuals and that new arrangements for co-operation amongst groups are necessary for effective performance (Taylor-Cummings, 1998). The cumulative effect of these changes has made it increasingly problematic to support the isolation of large IS departments. As criticisms mounted against IS departments, their budgets have been trimmed and manpower resources have been reduced (Earl, 1992). Behesti (2000) proposes that the key to survival for an IS departments is adaptation. He further proposes, the solution for IS departments is to reinvent their mission from one keeping watch over a mainframe and developing in-house software to that of leading the strategic direction of the company.

Kirsch (1997) suggests that the control function of IS should be located in both IS and user areas. His approach to appoint co-project leaders from both the IS and business areas would grant both formal responsibility and authority necessary to manage the project. Yet, the lack of cooperation is also evident from business managers. Research shows that senior managers and IS managers have raised concerns regarding business managers' co-operation and conviction in contributing to the

IS process (Galliers et al., 1994, Teo and King, 1999; Tai and Phelps, 2000). These studies suggest that business managers try to off-load their responsibility onto the information systems department. Sometimes business managers do not attend scheduled meetings to discuss requirements, or they send very junior staff who cannot make an adequate contribution to the information systems requirement discussion (Remenyi et al., 1997*).*

IS GROUP IDENTITY

Traditionally one of the pivotal characteristics of IS groups has been their ability to provide a service that was unique and could not be imitated. Researchers have proposed that groups attempt to preserve their self-conceptions through self-categorisations based on power attributes that characterise the group and distinguish it from other groups (Sherman et al., 1999). The isolation methods can be achieved in two ways: IS managers can ensure that business managers are unable to play an active part in the IS development by having a formal control, such as precise rules and procedures that makes it difficult for business managers to comprehend and group norms can be implemented by developing common values and beliefs. Through the use of formal and informal norms IS groups may attempt to safeguard their environments. Such norms assert the central values of the groups and regulate and stabilise group members' behaviour. These norms are translated through IS manuals and group meetings for reporting methods, feedback and evaluation processes. IS group use norms to enforce boundaries around the activities of the team. IS managers can ensure that business managers are unable to play an active part in the IS development by having a formal control, such as precise rules and procedures that makes it difficult for non-IS managers to comprehend.

IS groups have traditionally shared a strong cohesive bond and developed a strong identity that is built on common values and beliefs – leading to 'group identification'. This leads to 'strong relationships' that may be difficult to break down. Attempting to break down such groups can lead to conflicts and tensions occurring (Levine and Campbell, 1972; Stephan and Stephan, 1996; Stephan, et al. 1998). Furthermore, IS departments have been the subject of criticism from many quarters. This may lead to difficulties in developing co-operation between IS and business managers as the 'damaged identity' of the IS departments

maybe difficult to 'repair'. Thus, attempting to break down such groups can lead to conflicts and tensions occurring (Levine and Campbell, 1972; Stephan and Stephan, 1996; Stephan, et al. 1998).

Attempting to change existing structures can lead to differing responses ranging from staff working harder, reducing their efforts, not changing their efforts at all (Brockner et al., 1988) or withdrawing (Brockner, 1992). Restructuring may lead to employees becoming narrow-minded, self-absorbed, risk averse, emphasize short-term outcomes, overemphasis on the penalties for bad decisions, and therefore reduced innovation (Hoskisson et al., l994), morale drops, productivity lessens, and distrust management (Brockner, 1988). low commitment and morale, overall damaging the organization (Burke and Nelson, 1997). Ineffective management of restructuring creates resistance and resentment between employees and management (Cameron, 1994).

COMPETITION FOR RESOURCES

Resistance to change can also be influence by political factors resulting from re-distribution of real (for example, financial and Human resources) and symbolic (for example changes in roles of employees) resources. In large organisations it has become apparent that information systems can be used to redistribute resources, change the roles of users and alter the supervisory functions of managers (Stowell and West, 1994; Kirsch, 1997). This has resulted in information systems being viewed not just as technical developments but also as underpinning political agendas (Henderson and Lee, 1992; Kirsch and Cummings, 1996; Lycett and Paul, 1999). Business managers are aware of the implications of IS on their supervisory and managerial functions, both in terms of what the roles mean in a technical context, and how managers' behaviour changes given the availability and accessibility of information. Pinnosenault and Kraemer (1993) and Winter and Taylor (1996) claim that IS will increase the number of business managers and decentralise decision-making authority. Business managers, according to this view, are more than just information transmitters; they perform interpersonal and decision-making roles. Furthermore, IS, by its very nature, overwhelms organisations with information that needs further processing by business managers. In addition, the globalisation of the economy means the environment that organisations operate in is

more complex, increasing the need for scanning and analysing emerging competitive forces and events occurring outside the organisation – in other words, expanding the business manager's role. Therefore, control and ownership of IS projects as become an important issue in the development of information systems. The tension between developers and their counterparts in the business is reinforced by the political and cultural systems within organisations.

IS managers recognise that business departments are taking more control of information systems management. This is a worrying trend for IS departments, who are increasingly losing control of major aspects of systems development to external suppliers and users. IS managers are accustomed to influencing decisions that affect systems development, and are reluctant to relinquish control over these decisions to others. When roles that traditionally belonged to IS departments are passed onto business departments it would be expected that some conflicts of trust would arise. IS managers may feel threatened or evaluate more potential for harm from the changes and are less willing to co-operate in implementing the changes – thus creating a negative situation. The process of redistributing resources (physical or symbolic) may cause conflict from IS managers who fear decentralisation would eventually take all their roles away from their departments. Rivalry for resources, power, or mutually exclusive goals can engender negative affects resulting in strong emotions (Fiske and Ruscher, 1993). IS managers may feel threatened or evaluate more potential for harm from the changes and are less willing to co-operate in implementing the changes. In addition, this re-distribution of resources is likely to liberate strong conflicting forces in IS managers, leading to changes in reporting relationships, hierarchical structures and managers' roles and responsibilities.

Literature on trust in teams proposes that there is a perceived threat in co-operation between groups when conflicts of interest exist (Fiske and Ruscher, 1993; Tjosvold, 1988). Conflicts of interest are evident when groups vie for limited resources or strive for similar goals. Perhaps just as importantly, conflicts over ways of accomplishing common goals or tasks also result in a negative effect. Such conflicts of interest occur when IS managers perceive that business managers are questioning their professional competence or threatening their status within the organisation. Furthermore,

competition challenges perceived integrity, because group members do not adhere to the same principles. These contrasting core values can also create distrust between groups (Sitkin and Roth, 1993). As IS departments are restructured to allow business units to take responsibility of their IS needs, trust is expected to be especially important in this context as resources are being re-distributed.

DEVELOPING NEW RELATIONSHIPS

Many organisations have devolved IS roles to business units and new approaches to IS management are sought. However, senior management cannot simply expect new relationships of cooperation to exist between IS and business managers rather, they are created as organisational members engage in the sense making process (Gioia, 1986). The success of restructuring will inevitably depend upon the management of interpersonal relationships between IS, senior managers and business managers. During the changes new working practices may be introduced acting as a catalyst of the negotiation phase. In such transitions, where the tendency is for business managers to evaluate power in terms of relation to base rates (Fiske and Ruscher, 1993), a new view of a group's general context must be developed. A critical challenge in shifting power reputations lies in communicating to business managers that the IS managers have an important identity. IS managers are likely to be empowered by the restructuring if they feel valued and appreciated by the senior management. IS managers who believe that the changes imposed are not threatening are more likely to willing go along with what was expected of them. Furthermore, co-operation is more likely when group members believe that they profit when others succeed (Tjosvold, 1988). Co-operation is strengthened when group members interact and form relationships for mutual gain (Smith, Carroll and Ashford, 1995, p. 10). Such unions are likely to inspire trust development, because beliefs about trustworthiness are often associated with social group membership. Sustained senior management support throughout stages of restructuring is can assist these transitional changes. The participation leadership in terms of input into the strategic development of the strategies is likely to lead to the commitment of the IS staff.

DEVELOPING COMMUNICATION CHANNELS

However, when the aims of restructuring are not understand or are not informed of the changes, an attitude of "us-versus-them" may develop. This may have far reaching impact as employees become alienated, leading to distraction, disloyalty and the withdrawing of any form of commitment to the goals and values of the organization (Zeffane et al., 1994) Not surprisingly employees are more prone to cynicism about the change if they feel uninformed and if they are not offered meaningful opportunities to participate in the decision-making. (Appelbaum, and Donia, 2000). Madhok (1995) notes that sustained interaction is a critical tool for holding the group members together. Being around other group members generally increases favourable beliefs between members (Good, 1988). This emerges individuals who have face-to-face interactions are more easily able to go beyond surface information to more substantive levels of mutual understanding. Hence high levels of trusting behaviours are likely to be sustained as people interact in co-operative ways (Darley and Fazio, 1980). It must be made clear to all employees that the firm will be experiencing critical change and that a completely restructured firm will soon be a reality; the use of communication and symbolic management activities (reward ceremonies, speeches) is very important at this stage (Appelbaum et al., 1999) In such circumstances face-to-face interaction cannot be replaced by communicating via emails and conferencing technology (Cisco, 1993). Furthermore, It is senior management's ethical responsibility to provide employees with accurate information, so they can assume control over their own futures and careers (Appelbaum, and Donia, 2000). This may also aid in gaining the trust and credibility of the employees (Noer, 1993).

EMPOWERMENT BY SENIOR MANAGERS

A belief that management is concerned about the best interests of IS departments leads to less threatening appraisals. IS managers who perceive senior management as being open and honest (O'Neill and Lenn, 1995) may be less threatened because uncertainty is reduced. Fundamentally, senior managers must help IS managers through a painful but irrevocable change in the psychological contract between them and business managers. According to Appelbaum et al. (1999), the presence of senior managers suggests to employees that top management is concerned about them. To sincerely increase trust and open, honest communication, it is not enough for top managers to be present; they must be also willing and prepared to help IS and business managers.

Furthermore, if IS managers believe they have significant impact on the changes they are likely to become an active participant in implementing the changes, rather than a passive recipients of senior management mandate. The key aspect is the locus of control during the transition period. IS managers having the opportunity to influence the work of his department by exchanging information and ideas with the senior managers is more likely to cooperative. Conversely, if IS managers are ignored or blamed before or during the restructuring they will be threatened and will respond destructively. Empowerment reflects a personal sense of control in the workplace; a belief that individuals can influence the system. If IS managers are allowed to contribute to the restructuring they are more likely to assume some ownership and supportive of the changes.

SUMMARY

When roles that traditionally belonged to IS managers are transferred to business managers it would be expected that some conflicts of trust would arise. IS managers may feel threatened or evaluate more potential for harm from the changes and are less willing to co-operate in implementing the changes – thus creating a negative situation. These forms of restructuring decisions carry significant social costs for those affected. Restructuring the roles of IS departments constitutes a major efforts. In many cases, restructuring efforts are unsuccessful, many attributing their failures to senior management's lack of understanding of the implications of change (Proctor, 2001).

Co-operation is more likely if senior managers take more time to engage the IS and business personnel, provide full information and explain the clear business logic of their actions. The more IS managers believe that they can have an impact on the changes, the more likely they are to co-operate in implementing the changes. Senior management need not only be aware that the consequences of any form of restructuring is increased levels of stress, but also that it is management's responsibility to reduce such negative consequences. The management change literature on change is proposing that the role of leadership and management is a critical factor for effective and successful change (Kotter, 1996). There is an expectation

that senior management are highly committed to the restructuring (Lamsa, and Savolainen, 2000). The key to building effective work relationships is the mutual trust between senior managers and IS managers in building effective work relationships.

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