The Impact of Information and Communications Technology Infrastructure on the Momentum of Organisational Change

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This paper explores the role of Information and Communications Technology (ICT) infrastructure in facilitating the momentum of change. Research in this field of study prevalently examines the two subject areas individually. Limited research exists connecting ICT infrastructure and organisational change momentum as interrelated factors. This research arose due to the absence of a sufficient body of knowledge on the correlation between ICT integration and organisational change. This study explores the events and activities that generate initial momentum, and cause fluctuations in momentum over time, and the attributes of time, technology, scope, human resources, and the cost of implementing technology.

INTRODUCTION

New technologies have enabled further collaboration within organisations. New technologies are simultaneously reducing the cost and increasing the rate at which information is processed, transmitted and stored. Technology can enhance internal communications in organisations by providing staff with access to corporate news and views (Cairncross, 2003). ICT is a crucial source of support for organisational learning and the transfer of knowledge, and the current state of the business arena demands the adoption of new technology. Technology transfer innovations have specific managerial implications, and entail meticulous observation of individual variables arising from implementation. This requires a focus on the technological and social issues involved in innovation. ICT enables organisations to improve their sustainability through its facilitation of individual learning across an organisation (Chinowsky and Carrillo, 2007).

Limited research correlating ICT infrastructure and the momentum of change exists. Further, these two discipline areas to this point remain in the literature as relatively distinct research areas. In addition, there is limited literature exploring the correlation between ICT, change, innovation and the diffusion of innovation. This study examines the influence of certain change-related events and social processes on momentum during the early stages of organisational change. The characteristics of innovation are crucial predictors of successful ICT implementation (Ash and Goslin, 1997). Technology integration is influenced by "workforce characteristics, responsiveness, receptiveness, adaptability, flexibility, technology assimilation, experience and willingness to learn and change" (Kuruppuarachchi, 2000, p. 496). The integration of technology can be viewed as a series of stages similar to those of the medical

technology adoption model developed by Koch, Lam and Meyer (1996), which proposes three stages for adopting technology; Knowledge-Awareness, Evaluation-Choice, and Adoption-Implementation.

RESEARCH PROBLEM

This study explores the body of knowledge surrounding the integration of ICT infrastructure and change momentum. The review of literature focuses on three parent disciplines of Information and Communications Technology (ICT), Knowledge Management, and Organisational Change. One of the challenges for organisations undertaking organisational change is the effective integration of ICT infrastructure. Failure in ICT integration remains prevalent, and existing business strategies are incapable of adequately addressing the new environment businesses face, which is increasingly competitive and global. Addressing issues arising in the implementation of ICT individually inevitably leads to failure, due to a disdain of the resultant effect from numerous factors influential in implementing ICT into an organisation (Ashry and Taylor, 2000). The absence of a sufficient body of knowledge on the role of ICT infrastructure in change momentum leads to the following research questions:

- How does the integration of ICT infrastructure affect the momentum of organisational change?
- What causes the momentum of organisational change to fluctuate?
- How does the learning process influence the momentum of change?
- How does ICT infrastructure integrate learning into policies and processes?
- Who is the change agent in an organisation, and how does this influence the momentum of organisational change?
- What are the barriers to the momentum of organisational change?

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Technology has the potential to enhance the end result of organisational change initiatives (Kuruppuarachchi, 2000). ICT potentially supports optimal communication and knowledge flow between intra and inter-organisational partners (Balthazard and Cooke, 2004, p. 1). Knowledge Management is potentially facilitated through Information Technology once information becomes available (Balthazard and Cooke, 2004). Cairncross (2003) proposes an organisation is 'well-organised' when it demonstrates a structure facilitative of intellectual capital expansion. A winning organisation combines good people, good structure, and good software. Training staff in the use of new technology creates competitive advantage (Cairncross, 2003). Balthazard and Cooke (2004) argue that information, in terms of its availability, source, and flow, is largely the result of human processes. Cairncross (2003) predicts that organisations will concentrate more on managing their people than physical assets.

Studies indicate the role of ICT as necessary in successful knowledge management, though there is no assurance that ICT alone will result in successful knowledge management at all levels of an organisation, or across multiple organisations (Balthazard and Cooke, 2004). The Internet will have a profound influence on organisational structure and many business practices. Cairncross (2003) argues the challenge now is to complement electronic delivery channels with physical delivery channels in order to realise the Internet's potential. Organisations obtain the most benefit from new technology when the organisational structure can accommodate ICT (Cairncross, 2003).

Innovation diffusion theory is suitable for studies concerning "technology evaluation, adoption, and implementation" (Ashry and Taylor, 2000). However, to acquire an understanding of the implications of innovation diffusion, distinct definitions of innovation and diffusion are required first. Organisational innovation is defined as "the adoption of an idea or behaviour that is new to the organisation adopting it" (Daft, 1978, p. 197). Diffusion is "the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 1995, p. 10). Hence, the diffusion of innovation is "the pattern of its adoption by an organisational population over time" (Swanson, 1994, 1071). Furthermore, innovation attributes are key determinants of "the spread of usage (internal diffusion)

and depth of usage (infusion)" (Ash and Goslin, 1997, p. 751). Moore and Benbasat (1991) devised several measures for assessing 'innovation attributes'. Several of these attributes have specific relevance to innovation in Information Technology (IT), and include voluntariness, image, ease of use, result demonstrability, and visibility (Moore and Benbasat, 1991).

Similarly, the barriers inherent in technology integration relate to the cognitive limitations of users (Shu, Tu and Wang, 2011). ICT adoption is affected by 'technostress', which is defined as the "negative impact on attitudes, thoughts, behaviours, or body physiology that is caused either directly or indirectly by technology" (Weil and Rosen, 1997, p. 108). The needs of multiple users may be conflicting. Users may be reluctant to use a new system without complete agreement on the rationale for implementation. In addition, age influences ICT usage, indicating a possible link between age and familiarity with ICT. Issues related to usability can be resolved by considering usage patterns in the design phase. Integration can be further limited through a lack of common language between analysts and experts (Ashry and Taylor, 2000).

Ash and Goslin (1997) propose that attributes of innovation, the organisation, and boundary-spanning are important for diffusion. Boundary-spanning between an organisation and the surrounding environment need to take place in order to propagate the spread of ICT usage (Lysonski and Woodside, 1989). Boundary-spanners are defined as people in cross-departmental roles working with employees who implement technology and its users (Ash and Goslin, 1997, p. 751). Correspondingly, lack of trust in ICT and ICT staff is a further hindrance to successful technology integration. Lack of trust may arise from inappropriate planning, setting up, and costing of ICT projects. Another commonly faced barrier to integration is poor design and complexity, which arises due to the availability of software and hardware. Whilst attempting to enhance knowledge transfer, organisations face the dichotomy of infringement of privacy and sharing of information. Undefined responsibilities also pose a threat to the successful integration of technology (Ashry and Taylor, 2000).

KNOWLEDGE MANAGEMENT

Transparency will become increasingly important to organisations (Cairncross, 2003). The success of an organisation in the long-term is defined by its ability to manage knowledge (Nonaka and Takeuchi, 1995). Knowledge is a socialisation process, gathered "through observation, induction and increasing participation, rather than formal inquiry" (Eraut, 2000, p. 122). Knowledge assets have the potential to facilitate competitive advantage (Hendricks and Vriens, 1999; Stonehouse and Pemberton, 1999). Hence, most learning is non-formal (Eraut, 2000). Knowledge transfer is integral to organisational change (Chinowsky and Carrillo, 2007; Cummings and Worley, 2009), and considered to entail cross-learning among specialists, leading to the successful implementation of organisational change (Kieser and Koch, 2008). Similarly, the capabilities of the ICT infrastructure employed in an organisation determine knowledge management and learning (Chinowsky and Carrillo, 2007).

Similarly, Schulz (2001) proposes three learning processes, collecting new knowledge, codifying knowledge, and combining old knowledge. The collection of new knowledge strengthens vertical knowledge flows, the codification of knowledge facilitates horizontal and vertical knowledge flows, and the combination of old knowledge mainly affects the horizontal flow of knowledge across the same hierarchy level within an organization. Vertical knowledge flow facilitated the rapid dissemination of knowledge, and hence quickening the process of understanding and making connections with other knowledge (Schulz, 2001).

In addition, training programs facilitate knowledge transfer. Training is defined as "the provision of knowledge and skills" (Antonacopoulou, 2006a). Training provides members of an organisation with knowledge on a specific area (Antonacopoulou, 2006b). Formal education and training assists individuals to adapt to environmental changes in an organisation (Casey, 2005). Training programs also create well-informed individuals who can subsequently utilise a system confidently and effectively. Learning is defined as "the process of acquiring knowledge and skills" (Antonacopoulou, 2006a). However, the majority of learning initiatives have involved formal training, and as a result have been unable to achieve

consistency in the retention of information in terms of the period of time knowledge is held (Antonacopoulou, 1999a; Antonacopoulou, 1999b).

ORGANISATIONAL CHANGE

Change arises as organisations are subjected to shifts in the operating and external environment in the form of planned, unplanned, frequent and diverse changes (Casey, 2005). Organisational change is stimulated when a need emerges, hence requiring the assignment of resources for change implementation and adoption (Cummings and Worley, 2009; Pettigrew, Woodman and Cameron, 2001; Reissner, 2005). There is wide consensus that the process of organisational change is one of great complexity (Cummings and Worley, 2009; Poole and Van de Ven, 2004; Reissner, 2005). Change can be viewed as a cyclical process, alternating between clarity and ambiguity, and leading to greater clarity at the end of the cycle (Corley and Gioia, 2004).

Ambiguity is a potential product of change, hence organisations are required to identify and understand ambiguity to facilitate clarity in the change process (Corley and Gioia, 2004). Organisational learning leads to change (Antonacopoulou and Chiva, 2007), and change itself can be a cause for further change (Hannan, Polos and Carroll, 2003). Organisational change requires an environment that is accommodative of change to ensure success (Antonacopoulou, 2006a). Resistance to change emanates from individuals in an organisation. The individuals who participate in the change process take the form of strategy leaders, implementers, and recipients (Hao, Xu and Qian, 2009). Organisational politics, policies and procedures are key determinants of the implications of change, and how change is potentially influenced by leadership, culture, and structure (Cummings and Worley, 2009).

The period of time over which change is implemented defines how change is approached by an organisation (Sorensen, 2002). Momentum predicts organisational progress towards goal attainment, and therefore, a correlation between goal attainment and momentum exists. Dominant triggers for momentum are perceived momentum, goal attainment, trajectory gap, change related commitment, and frequency of change-related interaction (Jansen, 2004, p. 284-295). Jansen (2004) proposes avoiding the dominant focus in the literature on a ‘strategic persistence’ view of momentum by moving to ‘dynamic conceptualisation’. The significance of this departure from the existing literature is greater distinction between ‘inertia’, ‘momentum associated with strategic persistence’ and the ‘momentum of strategic change’ (Jansen, 2004, p. 276).

METHODOLOGY

Research Paradigm

The constructivist approach is utilised as the study involved the collection of empirical evidence, hence enabling the establishment of a foundation on which to build theory (Guba and Lincoln, 1994). This approach exhibits relativist ontology, enabling focus on constructs within a context. The relativist ontology of constructivism implies that data is dependent on the form and content of the individual persons or groups holding the constructions (Guba and Lincoln, 1994). The constructivist approach is selected over the positivist approach in this study for its comparatively higher capacity for developing new constructs through its unstructured nature (Eisenhardt, 1989; Silverman, 1993).

Constructivism exhibits a transactional and objectivist epistemology. The transactional and objectivist epistemology of constructivism creates knowledge through interaction with research participants (Guba and Lincoln, 1994). Constructivism requires researchers to engage with the subject of their research. The paradigm calls for subjectivity to be accepted, and research involves inductive qualitative methods (Veal, 2005). A constructivist approach is particularly useful in studying Organisational Development, as ICT involves multi-voice reconstruction, to understand and subsequently reconstruct the constructs held by the researcher and research participants through consensus building (Guba and Lincoln, 1994). This approach provides flexibility for new interpretations through data improvement and refinement of research techniques (Guba and Lincoln, 1994).

Constructivist research integrates values that influence research, hence the intrinsic nature of ethics in this paradigm. There is an inclination in this paradigm for a process tilt towards revelation (Guba and Lincoln, 1994). Knowledge is created through an understanding of the studied phenomenon (Easterby-Smith, 2002; Krauss, 2005). The nature of knowledge in constructivism is the accumulation of knowledge by developing constructs through the hermeneutical/dialectical process (Guba and Lincoln, 1994). Furthermore, this approach involves the identification of complementary constructs, or the development of consensus amongst individuals with the capacity to understand constructs in their surroundings (Guba and Lincoln, 1994). The hermeneutical/dialectical nature of the constructivist paradigm facilitates transparency, as respondents are conscious of the research objectives. Hence, advocacy and activism play key roles in realising successful constructivist research. Respondents are then able to form new constructs (Guba and Lincoln, 1994).

Research Methodology

Case studies were selected as the study entailed an exploration of social phenomena within a specific context (Veal, 2005), requiring analysis of data through hermeneutics (Hussey, 1997; Remenyi, Williams, Money and Swartz, 1998). This study adopted a multiple case study approach, involving interviews of employees from five organisations. The organisations studied are identified as Organisation V, W, X, Y, and Z. The rationale behind selecting the organisations in this research is on the premise of several factors. Most of the organisations selected have been in operation for more than five years and in a phase of rapid growth and ICT change. The study encompassed employees from a wide range of Management positions exposed to a wide range of cultural dynamics indicative of the entire organisation, through personal experiences, involvement in decision-making, interaction with employees, feedback from peers, and observations of the organisation. The rationale behind choosing Senior Management as interviewees was their access to extensive knowledge of organisational operations, involved in decision-making, and in a position to influence organisational ICT change.

The in-depth interviewing method is used in this study to gather a detailed account of individual experiences and understanding of the phenomenon within the studied context, in order to develop meaning from research findings (Eisenhardt, 1989; Ragin, 1987; Yin, 1994). The interviewees consisted of 18 employees across the five organisations. This approach was undertaken due to the added benefit of studying change from multiple perspectives (Reissner, 2005). Moreover, using a semi-structured schedule enabled the interviewees to express their ideas and impart knowledge without restriction. Probing was used to encourage interviewees to elaborate on their responses, and to ensure that data obtained from interviews remained relevant to the research question (Whyte, 1982). The combination of these technique enables researchers to obtain a large amount of data from a small number of research participants (Veal, 2005).

RESULTS

This study reports on research that investigated the role of Information and Communications Technology (ICT) infrastructure in facilitating the momentum of change, and identifies factors enabling the prediction of change momentum. The organisations studied exhibit a high level of technology intensiveness. The findings identified a similar behavioural pattern across the studied organisations. The interviews revealed that the rapid advancement of ICT and globalisation have raised new challenges and issues beyond managerial expectations. Organisations that encountered change struggled to revive a culture of learning to cope with recent technological advancements.

Organisation V

Headquartered in Melbourne, Australia, with multiple state and regional offices, Organisation V was the result of a merger between four organisations in 2004. One of the main challenges following the merger has been the deployment of new unified ICT infrastructure, particularly in the creation of an intranet, as there were some advantages in this area with some of the merged organisations, without

disturbing day-to-day operations. Further, as some of the organisations that had joined the merger had comparatively older ICT infrastructure and human resource practices, the need for the creation of a new culture of learning became apparent, and the organisation is currently in the process of implementation.

Organisation V required the establishment of an organisational learning culture, specifically amongst Senior Management, in order to facilitate cooperation and achieve goals. In the momentum of change, the organisation experienced a time delay due to the new merger, which required a new culture. From the organisations interviewed, only Organisation V had shown some empathy in protecting the culture during organisational change. Organisation V identified that to implement major ICT infrastructural change, the merged organisation, needs to create a learning culture, which has its roots in all four pre-merged cultures, and achieving this goal has consumed a considerable amount of time and resources, and affected the momentum of change.

The implementation of ICT change coincided with the global financial crisis, and due to this external factor, Organisation V had no other option to accelerate the momentum of the change in the context of cost reduction, and this action put great strain on HRM, and resulted in a high incidence of staff turnover. The Executive Board and Senior Management have been change agents, and change is management-imposed, rather than through consultation with stakeholders. Consultation occurred only with the external contractors hired to implement change. Therefore, the change was effective, albeit unsustainable.

Organisation W

Organisation W is an educational institution, which started in Melbourne, Australia, with a number of campuses in Victoria, and four other countries in the Asia-Pacific region, and has been operating in China for the past 14 years. ICT is a major component of the strategic plan for Organisation W, and due to the constant need for new ICT, the CEO issues late notice to the IT department. As ICT is unpredictable when many of the ICT projects start, the organisation created a culture of fast tracking and agile project management, in order to keep in sync with the momentum of change. As a result, employees willingly work overtime where required when an ICT project comes through, including weekends, and a sense of cooperation exists where each stakeholder is committed to engage in projects without any hesitation. As the changes are fast paced, external sub-contractors specialised in ICT project management are hired, and external consultants are outsourced to satisfy customer demand during phases of rapid growth.

One of the issues facing Organisation W is gaining the support of local employees for an international project, as the workload exceeds its resource limitations. The new culture of a typical workday from 5am to 11pm significantly affects the performance of employees, which resulted in mass staff turnover. This causes underperformance, and diminishes the high level of innovation that the organisation was benefitting from prior to this phase of rapid growth. The extreme workload affected the organisational culture in terms of reduced time for ceremonies and rituals, and other activities including company picnics, and the habit of celebrating employee birthdays, an ever-diminishing trend.

Organisation W is experiencing rapid growth, and to expand nationally and internationally, the organisation needed change in ICT infrastructure. Sudden changes have become a challenge for HRM. The rapid growth phase has reduced the amount of cooperation between different departments of the organisation, and cross-departmental communication has been reduced dramatically due to time constraints and workload. Organisation W has been open to implementing change. However, the main barrier to the momentum of change is delays in reviewing long-term strategic plans that are far outdated, due to the introduction of new ICT. In addition, a major barrier is a lack of understanding as to how internal resources are utilised, and outsourcing external professional assistance.

At Organisation W, change initiatives come from top management, although occasionally employees take initiatives to instil ICT change. Senior Management supports organisational change initiatives, to the extent that day-to-day operations of the organisation remain unaffected. The CEO and Founder of the organisation are the primary change agents. Organisation W is an innovative organisation, which is more reactive than proactive, and places great emphasis on innovative staff development. This initiative resulted in the creation of a learning culture, which supports change in the organisation, and smooth

cooperation between project teams from different departments, whom the CEO and Heads of Departments appoint.

Organisation X

Organisation X, headquartered in Melbourne, Australia, has offices across major cities nationally, and a number of regional offices in the Asia-Pacific region. In the era of new technologies, the survival of a telecommunications organisation depends on adopting a culture capable of adopting change quickly, and Organisation X is not immune to this. Organisation X not only now faces competition from Silicon Valley, other countries have emerged, notably India, the UK, and Canada, and as a result, Organisation X found itself in a position where ICT required sudden change in ICT infrastructure. That sudden change included the technological, cultural, and HRM practices, which demanded replacement of management and the board. These changes created waves of disturbance throughout the organisation.

Organisation X is open to change, though management of the change process remains deficient. Change initiatives and issues are miscommunicated, which leaves employees feeling insecure. Further, the lack of a change agent and communications plan has resulted in slow change momentum. Generally, Management imposed abrupt changes on employees, resulting in disruptions to day-to-day operations of the organisation. The Senior Management team are authoritative, and knowledge is mostly from top to bottom, and inconsistent. Eventually, Organisation X hired a change agent, which created a cultural clash. Hiring a change agent did not assist in the goals of the company in accelerating ICT infrastructure, rather, it produced a reverse effect, due to resistance from the prevailing culture.

Organisation Y

Organisation Y is a non-governmental organisation based in Sydney, Australia. Organisation Y is slow to implement changes in ICT, in comparison to the other organisations studied. The organisational culture of Organisation Y is rooted deeply in its values and norms, influenced by its universal mandate. Correspondingly, Senior Management is more reactive than proactive. During organisational change, some members of Senior Management pushed for change, though were rarely successful. Changes implemented by Senior Management rely on improvisation rather than strategic planning. Organisation Y recently revived its cultural roots, which centre on promoting intellectual cooperation. Senior Management appointed a sub-committee to implement changes in the organisation, including changes in ICT. In order to implement change, Organisation Y used a unique strategy to overcome the de-professionalisation of employees, and over politicisation of the organisation.

The findings from this organisation identified that when ICT infrastructure growth within an organisation is not organic or well-planned, organisational change will not be effective. However, sudden changes in ICT infrastructure affect the organisation and its culture significantly, and therefore requiring recognition of the effects of change on employees to reduce risk. Organisation Y is a great example of an organisation where the leadership failed to acknowledge the importance of ICT infrastructure in implementing change. Consequently, social networking and other electronic means of communication have not been utilised, the organisation faces a great setback.

Organisation Z

Organisation Z is an online insurance broker established to fulfil the emerging needs of the insurance industry. A group of friends, who are all ICT professionals, started the organisation. The organisational structure centres on the close relationship amongst the partners. The three major departments are the call centre, programming and accounts. Information flow across the organisation is open, and employees remain informed of all changes and developments at most levels. The culture of trust at Organisation Z inspires staff to be more innovative in the area of ICT, which is a key income stream for the organisation.

A culture of rewards and recognition creates a feeling of common wealth, and this plays a great role in the success of Organisation Z. The organisational learning culture created within the organisation differentiates from mainstream business standards. There is consensus amongst the employees of Organisation Z that as the size of the organisation increases, maintaining up-to-date ICT infrastructure

becomes increasingly difficult. Despite the limited resources, the IT department strives to maintain a current ICT system. The open door policy of the Executive Director's office supported individual initiatives, and facilitated knowledge transfer. This resulted in the implementation of new practical ideas to increase productivity, and support the sustainability of a relatively young organisation.

Prior to the change, time was a major factor in the implementation of ICT infrastructure, as the IT department had limited resources. As a result, the organisation invited new investors to join the organisation and support the cost of the ICT infrastructure, resulting in the acceleration of the momentum of change. However, having the new investors as members of the Board of Management affected the momentum of change, as they have vetoed all major changes. To implement ICT change, Management appointed several employees to a project team, including at least one member of the Senior Management team on the Board.

Organisation Z eventually decided to buy back shares of the new investors to ensure its sustainability, which is dependent on constant ICT change. An atmosphere of cooperation emerged through Senior Management support of the ICT project management team, involvement of all stakeholders during planning sessions, and informing key staff of future changes, resulting in the acceleration of change momentum. To support ICT change, Organisation Z outsourced professional contractors to educate employees and support the proposed changes. These strategic changes ensured the culture at Organisation Z remained innovative and vibrant.

CONCLUSION

ICT plays a critical role in organisational change, and in this rapidly changing business environment, organisations are continually pushed to upgrade their technology in order to sustain competitive advantage within their industries. In addition, the study found that communications planning is essential to set the momentum required during change. Evidently, meticulous research planning and consultation was undertaken. Though the research may not have provided an overarching view of momentum throughout the entire change process, this study has provided insight into momentum early in the change process, providing a base for further research. An organisation can support the development of culture strategies, which could become more innovative than conservative. Aligning the culture with organisational change creates a chain reaction, whereby the culture supports change in the organisation, and upcoming changes will support the culture.

This study found that momentum predicts the progress of an organisation towards reaching a specified goal. The findings identified that planning of organisation-wide communications during change implementation is critical in determining the momentum exhibited by change, as ICT determines perceptions of momentum within an organisation. However, organisations are more likely to encounter confusion when the momentum of organisational change is increased, which is likely to occur during the integration of ICT infrastructure. Transparency in knowledge transfer facilitates technology integration. One strategy for engaging end-user involvement is to convey to users how part of a system fits into the overall organisation. Thus, end-users are willing to change work practices through consultation and adequate justification for change.

This study has theoretical and practical implications for ICT infrastructure in the context of momentum and change. There was a commonality in the interview data, especially in regards to a lack of diagnosis and analysis prior to implementing change, especially in regards to the effects of organisational change on culture. Excluding Organisation V, the remaining four organisations suffered substantially due to unplanned change, and some of the changes implemented were counter-productive. For instance, in the case of Organisation X the organisation suffered from a high staff turnover, which paralysed the organisation for a number of years following a change. The loss of key people in the organisation also meant the loss of several contracts that were due to be renewed. Changes in ICT infrastructure require delicate planning to ensure optimisation of change efficiency, rather than slowing change momentum.

In conclusion, the majority of the organisations interviewed indicated a need to facilitate the diffusion of new technology through computer literacy and training, and in particular, an on-site training centre.

Introducing organisational reward systems for user acceptance also has the potential to encourage the diffusion of new technology. The most valued staff rewards include professional rewards associated with the work itself, the career development process, and the organisational processes employed.

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