



Managing Knowledge Sharing: Mutual understanding, Strategic Alignment and Contribution of Corporate Intranets in Knowledge Management in Kenyan Public Universities

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ABSTRACT

This paper explores a number of issues arising as a result of the impact ICTs are having on the educational landscape. Of note is a suggestion that the emphasis on research should shift from the use of corporate intranets as a means of supporting collaboration and partnership towards an understanding of its potential to help manage knowledge sharing. In the light of the pressures and challenges universities have experienced in recent times, the organization of ICT innovations in the universities is currently under review in many countries. In describing the various ways in which ICTs are being used in Kenyan public universities, this paper creates a keen impression of the kinds of benefits that can accrue from virtual collaboration and highlights the rationale for knowledge management through use of intranets. It intends to arm top management and policymakers with research-based knowledge on how best to use the technology in the new era of information economy and knowledge management.

Key words: *corporate intranets, information and communication technology, information economy, knowledge management, virtual collaboration.*

1. INTRODUCTION

Organizations' ability to create new knowledge is regarded as a primary source of competitive advantage already evident today and increasingly so in the future, and finding ways to actively support the process of organizational knowledge creation is, therefore, an activity that should be prioritized [1][3]. Johnson and Lederer [10] state that, organizations can only benefit from IT investments when alignments exist between the organizations' business and IT strategies. An intranet is the application of Internet technology, more specifically World Wide Web technology, within an organization. The intranet makes the spreading and sharing of information, communication and knowledge management possible in new ways compared with traditional information systems [2]. Today's organizations are no less confused than in the past when it comes to managing the information technology (IT) resources and the present technology landscape is quite different from that in the 1970s in that instead of being preoccupied with implementing payroll systems, database systems or office automation systems, modern organizations are in the midst of assessing the competitive effects of the Internet, negotiating extranet solutions with business partners and implementing intranets for internal use [3].

First we highlight some specifics of intranet technology. Thereafter, the paper examines the impact that new internal communication initiatives, within the framework of a knowledge sharing strategy, have had on changing organizational culture in public universities. It explores the development of a community of content focal points for the intranet and how a participative approach

has encouraged involvement in the organizational change initiatives and knowledge management. Last, we draw some conclusions and indicate areas for further research. When organizations adopt Internet technology to set up intranets; they have what seems to be a good foundation for knowledge creation, sharing and knowledge management [1].

2. MUTUAL UNDERSTANDING, STRATEGIC ALIGNMENT AND CONTRIBUTION OF INTRANETS TO KNOWLEDGE MANAGEMENT

2.1 Some basic concepts: Technology and intranets

The meaning of technology as an idea has changed over time. Technology was once defined and understood as applied science, power performance or control of environment due to human needs [4]. Kline defines technology as involving both 'socio-technical systems of manufacture and socio-technical systems of use' [5]. Studies of technology should be carried out in order to enable an increased understanding and view of technology.

An Intranet is essentially an intra-organizational information technology (IT) network, akin to the World Wide Web [6]. More precisely, an Intranet is an application based on Internet technology, hyperlinked, and richly networked, flexible and organizationally bounded [2] [1]. According to Stenmark [1], while the Internet emerged out of the ARPANET in the late 1960s, intranets



are the result of the growing number of companies beginning to run TCP/IP on their intra-organizational networks in the mid-1990s. Institutions of higher learning have always created intranets to support their business functionalities, including learning and teaching, intra-organizational communication and management.

2.2 Mutual understanding and strategic alignment of intranets in universities

Mutual understanding refers to a degree of agreement between individuals on a topic [11] and has direct effect in institution's success. The relationship between strategic alignment and mutual alignment of intranet investment in universities can be viewed in terms of the support these intranets offer to the institutions. Johnson and Lederer [10] discuss eight IT strategic alignments which institutions of higher learning can embrace:

- Aggressiveness is the extent to which an organization attempts to improve its market position and outperforms competitors. A university which competes to increase standards of education is following an aggressiveness strategy.
- Analysis is the extent to which an organization requires factual, comprehensive information for decision-making. An institution which attempts to identify the cause of problems and generates alternative solutions is following an analytic strategy.
- Internal defensiveness is the extent to which an organization engages in activities to improve its efficiency of business operations in an effort to preserve its prospective domain. A university that competes by reducing cost would be practicing internal defensiveness.
- External defensiveness is the market or environmental activities that help a firm preserve its domain. Competing by establishing and maintaining strong relationships with customers is externally defensive.
- Futurity is the extent to which an organization's decisions or activities reflect long-term considerations. Competing through extensive forecasting and tracking environmental trends exemplifies futurity.
- Proactiveness is the extent an organization searches for new market opportunities and business ventures. A firm that responds to a changing environment its competitors practices proactiveness.
- Riskiness is an organization's willingness to engage in business practices with an uncertain outcome, but potentially high return. An institution that competes by

investing in a new subsidiary with a low probability of high returns may be practicing riskiness.

- Innovativeness is the extent a firm applies creative and imaginative solutions to business problems. An institution that adopts new products and services before competitors is practicing innovativeness.

2.3 Intranet contribution of knowledge sharing within universities

The society we are living in is turning in to "knowledge society". Knowledge management requires changes in processes, organizational structure, and corporate culture. With the advent of knowledge economy and the high uncertainty of the economy environment, knowledge creation and knowledge sharing have been identified by many researchers (e.g. [7], [8]) as the most critical factors to achieve success in knowledge management (KM) in many organizations including learning institutions. Knowledge management technologies include the user interface, the knowledge map, knowledge base, retrieval, data mining, sharing, online analytical skills and so on [9]. The intranet has been a catalyst for change [7] helping students to study independently, accordingly, diversifying teaching and studying mode, with enriched collaboration [9].

2.4 Catalyst for knowledge management in universities: corporate intranets

Trust in virtual communities or organizations including institutions of higher learning using information systems like an intranet are probably a critical condition for learning, communicating and sharing of knowledge. It is clearly evident from the survey conducted that, institutions' leadership recognized that change required a major overhaul of the way these universities undertake their work, encompassing a review of the ICT policies, exploring new ways to deliver services, and a reinforcement of technological systems for knowledge creation and management. Intranet technology in public universities through web-based collaboration technologies can play a pivotal role in virtual teams' ability to adopt and successfully use innovative information technologies [2] thereby increasing the competitiveness of these institutions and hence quality service despite limitations that these institutions do face.

Below is a framework of which intranets can base on in response to knowledge management.

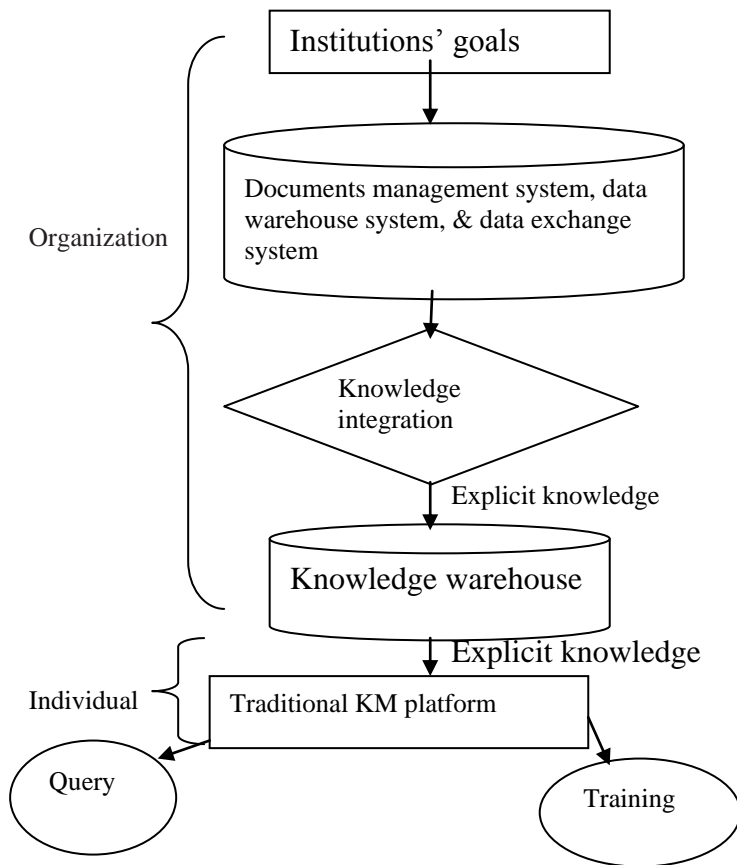


Figure 1: Technology-oriented Knowledge Management model [8] which can be applied in universities.

3. METHODOLOGY

3.1 Context and participants

Data were collected from University IT employees and teachers of Masinde Muliro University of Science and Technology and thus a convenience sample was used. From the survey, IT employees experienced daily changes and high uncertainty with respect to both work load and work assignments. IT employees were held accountable for providing IT services to clients using the existing technology that was not fully integrated. Using a questionnaire which consisted of 98 questions, we received 91 useable responses out of the 150 possible for 60.67% response rate. 46 % were IT professionals while 48% were teachers and 6 % consisted of top-management. Most (91%) identified themselves with the role intranets play in their institutions.

3.2 Measures

Responses were recorded using one of two 7-point Likert-type scale 1 = strongly disagree, 7 = strongly agree; or 1 = not important, 7 = important) or a 7-point frequency-of-occurrence scale (1 = not at all, 7 = to a large extent).

3.3 Statistics

The antecedent factors for our analysis included the items associated with job challenge, autonomy, perceived work load, internal communication, work exhaustion, diverse stimuli, and rich information provision.

Table 1: Mapping KM characteristics, responses and effect on the group

Intranet characterist	Effect on KM as %ge		
	Organiza tion level	Group level	Individual level
Job challenge	13%	56.7%	41%
autonomy	72.2%	*	*
Work load	12%	34.5%	44.5%
Internal communication	89.2%	*	*
Work exhaustion	*	45.5%	32.2%
Rich information	67.4%	74.4%	34.2%
Diverse stimuli	55.0%	53.6%	*

* Was not considered

4. DISCUSSIONS

Bottom-up IT environments such as the intranet information system help to blur the boundaries between formal and informal communication by offering support for lateral or horizontal information systems. An intranet could, therefore, be an important tool for within-university communication, enabling peer-to-peer information sharing among students, lecturers and management.

Intranet technology provides at-your-fingertips accessibility to a variety of targeted as well as peripheral and speculative information, and the intranet-web or simply information system (IS) can therefore be said to support rich information provision. The networked aspect through effective use of universities' local area networks makes documents and reports from different departments in remote geographical locations as easy to access as the ones from the group next to you, and people who may never meet in person due to physical distance may meet in virtual 'team-rooms' and share thoughts and ideas electronically[1].

Although it is impossible to tell in advance what stimuli will spark an innovative idea, it is generally recognized that more and diversified stimuli increase the chances for creative ideas. The software component of Intranet infrastructure which embodies the concept of hyperlinks makes the institution's IS a pull-oriented



technology, which means that it does not try to deliver stimuli based on some pre-established rule. A networked technology such as the web can span geographical borders, allowing input from different cultures to mix and add to the variety of possible stimuli [1] [6]. Through the intranet web system, the user effortlessly receives these inputs, which due to the flexibility and transparency of the web can come in a variety of media formats, including images, video, and audio, thereby providing stimuli in many different shapes.

Intranet has the potential of making institutions of higher learning autonomous- in that instructional members are empowered with decision-making rights and encouraged to engage in virtual collaborative work load sharing and tackling the job challenges as a group. Such an approach opens for innovation and unexpected information needs and thus institutional intranets are said to support autonomy in this world of information economy.

Lastly, intranets in universities, when properly implemented, have a more profound contribution to enrich information to all stakeholders through KM, which relates directly for effectiveness; with which the managed knowledge enables the members of the organization to deal with today's situations and effectively envision and create their future. Without on-demand access to managed knowledge, every situation is addressed based on what the individual or group brings to the situation with them. With on-demand access to managed knowledge, every situation is addressed with the sum total of everything anyone in the organization has ever learned about a situation of a similar nature

5. CONCLUSIONS

In our study, we have attempted theoretically to examine how intranets can be useful in knowledge creation, sharing and management in universities. More concerns on intranet under-utilization is evident and the medicine to the same being top-management support and proper IT strategies by universities. The paper proposes strong consideration of corporate intranets becoming useful knowledge creation, and knowledge management environments only in institutions where the management dares to let go of its control desire and empower the institutions' members to take a more active role in the design of the information landscape [1]. Perhaps the biggest drawback for universities expect is that of additional training for staff members and students and the new content the institutions can spend more on and above all data will have to be integrated from diverse sources and used by various stakeholders with diverse skills levels.

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