

Intra - Knowledge Transfer Success among Information Workers in Higher Public Institutions of Learning in Uganda: The Role of Information Technology

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ABSTRACT

Transition to the information society, mainly the private sector, as well as government universities have faced new opportunities for improving effectiveness and efficiency. However the pre requisite of efficiency and effectiveness is that any organizational decision should be based on appropriate knowledge. Unfortunately knowledge, which is regarded as the most influential source of power, if not shared and adopted, remains stale. Knowledge transfer which involves learning from those who have the competencies and applying what is learnt is the way to go. This study, cross sectional in nature investigated the effect of Information Communication Technologies on knowledge transfer success among information workers in higher institutions of learning. Results confirmed a positive significant relationship between Information Communication Technologies knows how and knowledge transfer. This is an indication that higher institutions of learning should not only spend on Information Communication Technologies infrastructure and Information Communication Technologies usage but invest substantially in training information workers in Information Communication Technologies.

Key Words: Knowledge Transfer, Information Communication Technologies (ICT)- Know How and usage

1.0 Introduction

This paper seeks to highlight the effect of Information Communication Technologies (ICT) on intra knowledge transfers success among information workers in Higher Public Institutions of Learning in Uganda. The information sector is changing rapidly and it is impossible for any information worker to remain isolated for they need to learn from each others experiences in order to keep abreast with the changes and remain relevant especially in Higher Institutions of Learning. One strategy that information workers could adapt in order to access new knowledge that could enhance their learning is by way of knowledge transfer that is defined as a process whereby knowledge passes from one person or group of persons to another group and the eventual adoption of that knowledge (Macdonald, 1999; Pearlson, 2001).When successfully accomplished, the transfer could improve competence both at individual and organizational levels which could create internal and external value. Internal value could be achieved by developing better processes and externally by creating intangible structures like customer relationships and new experiences (Argote &Ingram, 2000).Since knowledge represents a key personal and

economic resource, organizations must not only invest in the necessary tools to support the distribution of knowledge but also need to reinforce knowledge transfer strategies in order to harness employees' knowledge. And if we agree that Higher Institutions of Learning have in the recent past been considered knowledge business, then transfer of knowledge that is expected to lead to changes in behavior in practices, policies and the development of new ideas become imperative. And in order for institutions to maximize their potentials and meet changing needs of customers as well as survive in this competitive world, sharing knowledge for organizational performance and effectiveness (Muhenda, Lwanga & Wandarage, 2008) become decisive.

2.0 PROBLEM STATEMENT

The importance of knowledge transfer has grown in recent decades largely as a result of increasing proportions of many organizations total knowledge assets; increase in employee involvement and advances in information technology that have offered the means to organize various types of information into organizational knowledge and enabled it to be easily exchanged (Lewis , 1995;Nonaka &Takeuchi,1995.) Despite the growing literature on knowledge management, little attention has been paid to knowledge transfer among information workers and little empirical research on how (ICT) affect knowledge transfer in Higher Institutions of Learning in Uganda. Information workers in particular have been targeted because of their crucial role in supporting academic work in Higher Institutions of Learning which are knowledge businesses.

3.0 REVIEW OF LITERATURE

Knowledge has become one of the critical driving forces for organizational survival since organizations are increasingly leveraging the value knowledge and hiring 'minds' more than 'hands' (Wong, 2005). Knowledge has also been identified as an important factor that affects organizational agility and performance (Becman, 1997) and production (Baum &Ingram, 1998). Among the knowledge assets are knowledge bases, documents, policies and procedures as well as inarticulate expertise and experience across organizations often categorized as either tacit or explicit. Whereas tacit knowledge is resident within the mind, behavior and perceptions of individuals, explicit is deeply rooted in action, procedures, routines, ideals and commitment (Nonaka, 1991; Nonaka & Tacheuchi, 1995). It is usually such tacit knowledge that is specific to an individual that is difficult to acquire, share and use (Kim & Lee, 2006). Though knowledge transfer enhances organizational learning, thriving organizations must consistently create knowledge, disseminate it widely throughout the organization and quickly embody it in new technologies and products (Nonaka, 1991). However, knowledge transfer that embodies sharing of knowledge and adapting part of the knowledge to inform existing practices require some effort.

knowledge management in public administration contributed to decision making, building intellectual capital capabilities and developing a knowledge managerial work force and concluded that a comprehensive knowledge management strategy is important in public organizations. There have also been other studies done in higher institutions of learning which include but not limited to, knowledge management and quality assurance (Turyasingura, 2008), knowledge management and performance in Management Development Institutions (Muhenda, Lwanga & Wandarage, 2008), knowledge management practices and learning and innovation (2008). Despite these numerous studies, there is still a dearth of research on knowledge transfer in higher institutions of learning in Uganda.

Some researchers have also acknowledged the importance of IT in knowledge management initiatives. Results of such studies confirm how technology plays a key role in managing knowledge in organizations (Kim & Lee, 2006; Wiig, 1999). According to Saito, Umemoto and Ikeda, (2007) for instance, technologies can be categorized as collaboration technologies that support the creation of personalized knowledge; dissemination technologies that support the transfer of personalized knowledge, discovery technologies that support the creation of especially codified knowledge and repository technologies that support the transfer of codified knowledge. Kim and Lee specifically reported a positive significant effect between employee usage of IT applications and levels of employee knowledge-sharing capabilities for public sector employees'. This finding is amplified by Syed- Ikhsan and Rowland (2004) who reported that ICT infrastructure allow individuals to create and share knowledge effectively and contribute to knowledge transfer performance. Their study found positive a significant relationship between ICT know how and the performance of knowledge transfer. We cannot therefore fully appreciate knowledge transfer efforts without paying attention to technology, technology users and to the impact of technology on the transfer process. And it is against this background that this study considers ICT infrastructure, ICT usage and ICT know how as dimensions of Information Communication technologies and how they affect knowledge transfer.

2.4 Conceptual Foundation

The Knowledge Based Theory which is an extension of the Resource Based Theory of the firm provided a strong theoretical foundation for our arguments underpinned our conceptualization. Knowledge based theorists argue that firms exist because they have unique, often historically dependent abilities to accumulate specific resources that lead to differential levels of firm performance (Reed & DeFillippi, 1990; Curado & Bontis, 2006). Hence knowledge is considered to be a special strategic resource that does not depreciate in the way traditional economic productive factors do, but appreciates with use and is therefore a vital resource for organizations to thrive. Since transfer of knowledge has been linked to improved performance and agility, it is thus important to understand factors that facilitate such transfers. Although some researchers exclude ICT's from knowledge management domain and just consider ICT's as "enablers" and "facilitators" and others contend that ICT's are only concerned with information or data but never with knowledge (Holsapple, 2005), we hypothesized that ICT has a positive significant effect on knowledge transfer success among information workers in Higher Institutions of Learning. The conceptualized relationships are presented in the framework below:

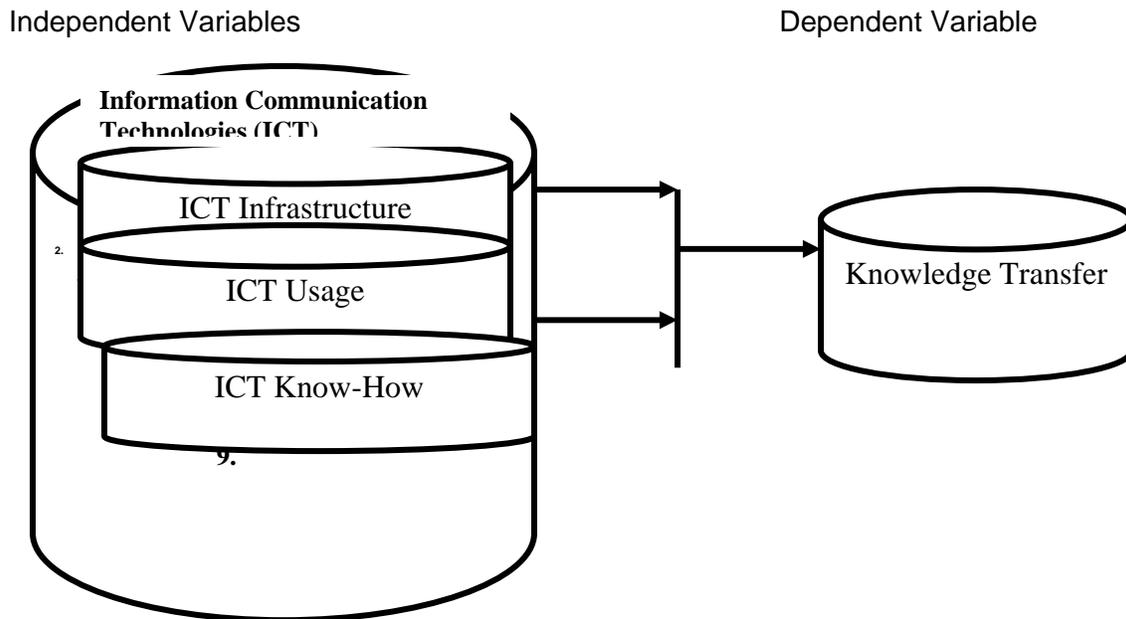


Figure1: Conceptual Framework

3.0 METHODOLOGY

The study, cross-sectional in nature used self-administered questionnaires to collect data from three Higher Institutions of learning. The respondents, who were selected using probability sampling techniques, were interviewed using a semi- structured questionnaire that was administered over a period of three weeks. Items in the questionnaire covered the three dimensions of ICT as conceptualized in this study and also covered knowledge transfer as a dependent variable. Factor and Reliability analysis to test the validity of the measures was used after which the goodness of measures was assessed. By using multiple regression we were able to: test how much of the knowledge transfer variance is explained by the three variables namely ICT infrastructure, ICT usage and ICT know-how; which among these variables is the best predictor of the outcome and whether a particular predictor variable is still able to predict an outcome when the effects of other variables are controlled.

4.0 DISCUSSION OF RESULTS

Percentages, tests of differences and multiple regression analysis techniques were utilized to discuss the respondent's profiles and cause and effect relationships following our postulated hypotheses.

4.1 Profiles of Respondents.

Out of 54 respondents, forty two (42%) were male and fifty six percent (56%) were female. The highest percentage of 40% had only spent between 1 and 5 years in the

organization an indication that most are young and therefore, more inclined to use of ICT's. Majority of staff (40%) had the basic bachelors' degree that is very vital in the running of University libraries as well as having a very high propensity to use ICT's. When asked about positions held in the Institution, seven percent (7%) were Heads of Department, 18% senior staff, 36% middle staff, 22% lower staff, 13% Para professionals which representation gave a fair chance of inclusion for all the targeted respondents.

4.2 ICT Availability

According to the responses, majority of about 93% stated that they use messaging tools while only 4% indicated that they don't use them. On use of intranets 82 % indicated that they use them while 11 % said no. On use of the internet 97% indicated that they use internet while 2 % indicated that they do not use internet. When asked to indicate whether respondents use tools for analysis of data, fifty one percent (51%) said yes whereas twenty one (21%) said no. Asked on the use of Data management tools which are used for archiving, storage configuration, performance measurement, data migration, storage provisioning, and performance monitoring and reporting, only sixty two (62%) acknowledged their use. Results on IT availability also showed that only twenty nine percent (29%) share information or work collaboratively with their peers through Group ware services that enable real time collaboration. Lastly but not least, majority of information professionals (71%) stated that they use Informational Retrieval Engines and only 13 % indicated that they don't use them. The results on ICT availability confirm a relatively high incidence of ICT availability in Higher Institutions of Learning in Uganda and a high probability of exposure on the part of information workers.

4.3 Effect of ICT on Knowledge transfer

To test the simultaneous effects of ICT infrastructure, ICT usage and ICT know-how and the transfer of knowledge among information workers, multiple regression was carried out to determine the variance of the effect of ICT on the transfer. Table 1 displays the regression analysis results

Table 1: Multiple Regression Analysis

Independent Variables	Beta coefficient & Significance levels
ICT infrastructure	.16
ICT usage	-.16
ICT know-how	.72***
Model Summary	
R	.70
R Square	.50
Adjusted R Square	.43

***significant at 10% level ** significant at 5% level and *** significant at 1% level**

From the table above, the results show a positive significant relationship between ICT know-how and knowledge transfer with a beta coefficient of .72 at 99% level of confidence. The interpretation is that these findings are in line with earlier studies that reported the importance of adequate training on using computers and software to allow employees' contribute to knowledge transfer success (Syed- Ikhsan & Rowland, 2004). The positive significant relationship between

ICT usage and knowledge transfer point to the fact that information workers require adequate training on using computers in order to improve the transfer of knowledge. Interestingly, this study did not confirm any significant relationship between ICT usage, ICT infrastructure and transfer of knowledge meaning that possession of ICT infrastructure and continued use of ICT do not improve knowledge transfer among information workers in Uganda's higher institutions of learning. It is only improved ICT know-how that lead to improvements in knowledge transfer.

5.0 IMPLICATIONS OF THE STUDY

Findings do confirm a positive significant relationship between ICT know-how and knowledge transfer, a revelation that Higher Institutions of learning need to put more emphasis and make budgetary provisions for ICT related training. Information workers need not only be provided with ICT infrastructure and only encouraged to use the existing Infrastructure but must be adequately trained. Universities should therefore develop training policies targeting ICT as a critical priority need and increase ICT training budgets to cater for all information workers.

6.0 FUTURE RESEARCH

One of the areas that need further research is the effect of ICT on knowledge transfer other organizations since this study only covered only Higher Institutions of Learning . Another important area that needs further exploration is the role of organizational culture in the relationship between ICT and knowledge transfer in Higher Institutions of learning.

7.0 CONCLUSION

Since the acceptance of knowledge as a critical economic resource, organizations have been striving to harness their employees' knowledge as a strategy to learn and remain relevant in the global turbulent market. Higher institutions of learning have also followed suite and so have information workers whose role is to support academicians generate more knowledge. The best strategy therefore is to continue learning from each other, through teams and across Departments and apply all or part of what is learned to attain best practice.

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