

DO KNOWLEDGE MANAGEMENT PRACTICES IN HIGHER INSTITUTIONS OF
LEARNING AFFECT INNOVATION: EMPIRICAL FINDINGS FROM MANAGEMENT
DEVELOPMENT INSTITUTES IN UGANDA AND TANZANIA

By

Mary Basaasa Muhenda

Elizabeth Kawuma Lwanga

&

Agatha Wanderage

ABSTRACT

The study cross sectional in nature was conducted at Uganda Management Institute and Tanzania Civil Service College. A total of 109 out of the total population of 176 representing a 62% response rate of both training and senior administrative staff were interviewed using a semi-structured questionnaire that was administered over a period of one week. Data was analyzed using factor and reliability analysis and multiple regressions. Results revealed that knowledge application has a positive significant effect on innovation; knowledge evaluation has no significant effect on innovation whereas knowledge acquisition has a negative significant relationship on innovation. Implications are that MDI's should build cultures that facilitate learning and encourage staff to experiment and to make mistakes in order to come up with new ideas that result in new products and services. Future research could cover Universities and other Tertiary Institutions.

Key Words: Knowledge Management, Knowledge Acquisition, Knowledge Evaluation, Knowledge Application, Management Development Institutions, Innovation

1.0 BACKGROUND

Management Development Institutes (MDI's) in Africa were established in response to the government's capacity development, advisory and expertise requirements of African governments. Their role is the production of intellectual service which includes training, consultancy and research services aimed at transforming governments (Fraser – Moleketi, 2007). Management Development Institutes like all organizations are encouraged to devise ways of utilizing existing knowledge and experience to develop new products and services in order to adapt to the dynamic nature of business environment today. It is this new thinking that will enhance MDI's responsiveness to new ways of thinking, doing business, developing new competencies to address new challenges in the global village. One sure strategy is to become innovative because the need for MDI's to become more innovative has been accentuated by customers' sophisticated demands for better and new services (Kandampally 2000; Squiner and Snyman, 2004). Being customer focused, MDI's have no choice but to focus their entire energies to provide outcomes that surpass their customers' expectations. This new thinking is anchored on the promise that organizations that are more innovative are those that are able to stimulate and leverage their employees' knowledge (Wiig 1993; Ahmed, Lim & Hoh, 2002). Against this background MDI's have little option but to appreciate the skills of their human resources in searching, discovering and experimenting in order to build innovations.

1.1 INTRODUCTION

In the knowledge era, the principal goal of service organizations in particular is to enhance a system of production processes with emphasis on intangible assets like innovation, information people skills, experience and attitudes as the basic raw material (Masoulas, 1999). Knowledge Management defined as a process that is applied by organizations to generate wealth from their knowledge based assets (Wiig, 1993; Ahmed, Lim & Loh, 2002) seems the best way to go. This is especially true if MDI's have to be innovative since innovation is dependent on a mix of ideas, information and practical know how (Drejer, 2002). For although innovations involve using existing knowledge, they often require new knowledge which is underpinned by learning and sharing knowledge (Squiner & Snyman, 2004; Djer (2002). According to Murray,A (2008) and Squier & Snyman, (2004), managers must make it acceptable to take risks, implement employees' decisions and see mistakes as learning opportunities. Learning will then occur when knowledge that resides in one part of an organization is transferred effectively to other parts and applied in either problem solving or providing new and creative insights, (Goh, 2002; Argote & Ingram, 2000). Since knowledge ages rapidly and is liable to wear, that is why firms should continuously learn and innovate (Rampersad, 2002). Several researchers have argued that an organization that continuously learns and is able to continuously list, develop, share, mobilize, cultivate, put into practice, review, and spread knowledge, will be able to perform more effectively and meet current demands(Kiyaga- Nsubuga, 2009: Murray, 2002). Therefore, the ability of an organization to develop a new set of skills that encourage new ideas, experimentation, and learning from all employees, departments and partner organizations referred to as innovation in this study cannot be underscored (Chinowsky & Carrillo, 2007; Birkinshaw, 2001).

1.2 PROBLEM STATEMENT

Management Development Institutes are facing increasing complexity arising from rapid urbanization, advances in technology that are daily changing how they do things, the challenges and opportunities brought about by globalization, and the rising sophistication of citizen demands on government due to increasing awareness and access to information (Fraser-Moliketi, 2007; Kiyaga-Nsubuga, 2009). In order to cope with existing demands, adequate focus must be placed on building an array of skilled people that are adaptable to different situations; analytical, creative and capable of 'thinking out of the box'; to be able to generate new ideas, produce better products and services and get their organizations and the country moving in the correct direction and at the right speed. Unfortunately, MDI's in Africa of late have been a subject of criticism; major criticisms and shortcomings being their inability to focus on the real needs of their clients or consumers; their bureaucratic tendencies that have left their CEO at the apex of decision making leaving the staff along the base even in situations that do not necessitate a lot of bureaucracy (Agere, 2006; Fraser-Moliketi, 2007). These scenarios are in effect impeding the efficient and effective delivery of services and rendering MDIs incapable of meeting the complex needs of the sophisticated clients adequately. This has consequently derailed African MDI's from their original mandate of sustaining the core support delivery and technical advice that facilitate transformation of governments (Fraser-Moliketi, 2007). The imperative for enhancing the capacity of MDI's to address these issues will consist of creating a culture that emphasizes new and creative insights through innovation and learning.

2.0 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 assets include knowledge bases, documents, policies and procedures as well as inarticulate expertise and experience across organizations often categorized as either tacit or explicit. Whereas tacit is resident within the mind, behaviour and perceptions of

individuals, explicit is deeply rooted in action, procedures, routines, ideals and commitment (Nonaka, 1991; Nonaka & Takeuchi, 1995). According to Nonaka (1991), thriving organizations are those that consistently create knowledge, disseminate it widely throughout the organization and quickly embody it in new technologies and products which process is coined knowledge management. Successful knowledge management has become an important feature for organisational survival (Hoon, 2003; Payne & Sheehan, 2004). Many researchers have hinted on knowledge management as a key strategy to achieving organizational efficiency, staying ahead of competition, maximizing organizational potential, managing by reducing the loss of intellectual capital from employees who retire; reducing the cost of developing new services and making knowledge accessible to all employees (Argote & Ingram, 2000; Birkinshaw, 2001; Syed-Ikhsam & Rowland, 2004). Aware of the different KM strategies, we concur with Gorelick & Tantawy-Monsou (2005) that a good Knowledge Management strategy should consciously help people find, evaluate, share and put knowledge into action. This study therefore looked at KM strategies along similar arguments and adopted knowledge acquisition, knowledge evaluation and knowledge application. We adopted knowledge acquisition because MDI's need to get access to new knowledge and attain means of renewing their knowledge bases; secondly, knowledge evaluation taking into consideration that in order for knowledge to have value it must be applied within a specific business context to create value hence the need to sieve only such knowledge that is relevant to MDI's business operations; thirdly, knowledge application so that individuals knowledge can also be used by others to accomplish MDI's tasks and develop new practices.

2.1 Knowledge Acquisition

Knowledge is acquired through knowledge creation and content development through the distillation of experiences and lessons learned from client engagement projects, by collecting, synthesizing and interpreting a variety of information (Holsapple & Joshi, 2002). Knowledge is acquired within the organization, from external sources and by creating new knowledge from the already existing information (Payne & Sheehan, 2004; Hoon, 2003). This new knowledge must be able to create new ideas, recognize new patterns and must be embedded in new products and services in order to create value to the organization. MDI's have to innovate if they have to remain competitive and by thus doing they create new knowledge (Payne & Sheehan, 2004). "When employees invent new knowledge, they are also reinventing themselves and the company and even the world" (Nonaka, 1998).

2.2 Knowledge Evaluation

All knowledge available is not useful as all knowledge is not relevant to the business ventures at hand and it is not created equal (Lubit, 2001). One of the most important benefits of KM is to avoid repeating mistakes already made by others and reducing duplication of work (Payne & Sheehan, 2004). Once information is created, it is interpreted and evaluated from a contextual mental model to create knowledge and individuals and companies have different mental models (Senge, 1990). The knowledge gleaned from the same set of information can differ greatly, not just in quality but also in applicability. Therefore knowledge has to be filtered so that only that knowledge useful and applicable to achieve reality-based results is retained (Gupta & McDaniel, 2002).

2.3 Knowledge Application

In order for knowledge to have value, it must be applied within a specific business context to create value. Each industry does it differently though the underlying processes are similar, in that people with diverse expertise and knowledge work together to enhance existing value chains and create new ones (Dawson, 2000). It is hypothesized that the application of knowledge to organizational technologies and processes is an aid to discovering new business applications and

experimenting new ideas. The continuous sharing and applying of knowledge therefore facilitates knowledge retention within the organization following completion of the assignments, and thereafter, could be applied and modified in subsequent projects (Kamara et al; 2003; Ebgü, 2004; Anumba et al; 2002). Organizations need to generate new knowledge, facilitate its sharing within the organization and apply it on a continuous basis in order to be more innovative (Hoon, 2003).

2.4 Conceptual Foundation

Knowledge management in the public sector in particular has been investigated and many researchers have acknowledged the importance of a comprehensive knowledge management to support public administration (Wiig, 1993; Syed-Ikhsan & Rowland, 2004). Research in public sector organizations include Shields (2000) study that analyzed KM initiatives in the Canadian Federal services and the impact of the knowledge based economy on service provision. Wiig's (1993) study also investigated how KM could enhance decision making within public service; how it can assist the public in effective participatory decision making; improve intellectual capital capabilities and build a knowledge management work force. Syed-Ikhsan & Rowland (2004) conducted research in the Ministry of Entrepreneurial Development of Malaysia that investigated the relationship between organizational culture, structure, technology, human resource, political directives and knowledge transfer performance. Although research on knowledge management in public sector organizations has attracted attention, there is limited research that reports on how knowledge management strategies impact on innovation in Management Development Institutes in Africa in general and East Africa in particular. To underpin our conceptualization, the Knowledge Based Theory of the firm which is an extension of the Resource Based Theory of the firm and provides a strong theoretical foundation for organizational learning (Curado & Bontis, 2006) was employed. 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). 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 innovate. The conceptualized relationships are presented in the conceptual framework:

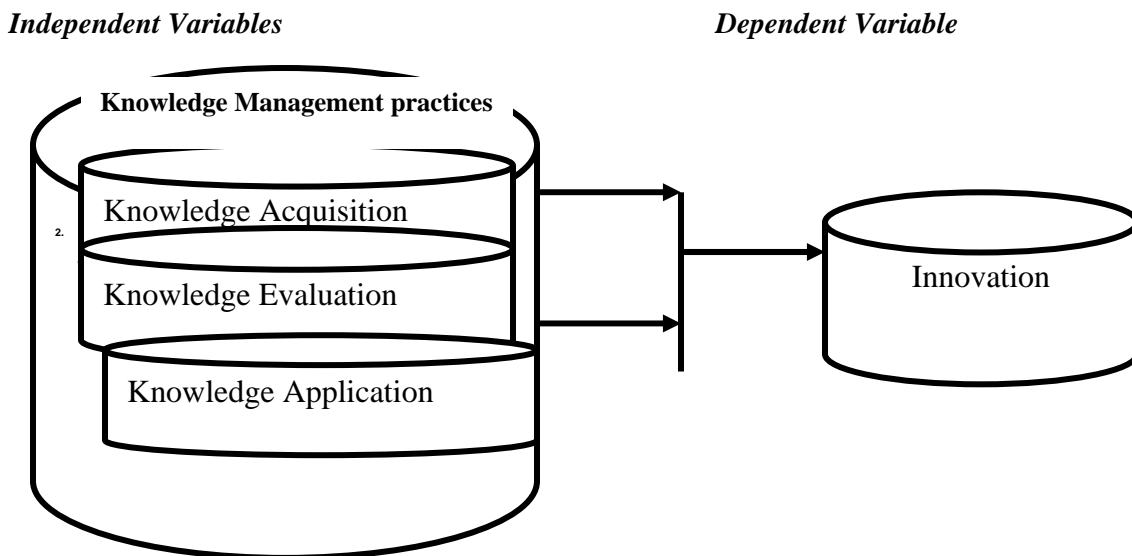


Figure1: Conceptual Framework

3.0 METHODOLOGY

The study cross sectional in nature was conducted at Uganda Management Institute and Tanzania Civil Service College. This paper examines the impact of KM practices on innovation. It is difficult to conclude that KM has a positive significant relationship on innovation in MDI's because of limited empirical research which has necessitated the empirical investigation of the link between KM and innovation. Since KM is considered as a process applied by organizations to generate wealth from their knowledge based assets (Ahmed, Kok & Loh, 2002), MDI's with effective KM practices are likely to be more innovative. We thus formulated three hypothesized namely:

- Knowledge acquisition positively affects innovation
- Knowledge evaluation positively affects innovation
- Knowledge application positively affects innovation

A total of 109 out of the total population of 176 representing a 62% response rate of both training and senior administrative staff were interviewed using a semi- structured questionnaire that was administered over a period of one week. Items in the questionnaire covered the three dimensions of KM as conceptualized in this study and also covered innovation. 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 relationship quality, inter-party attachment and firm-level learning capabilities; 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. In order to have a feel of the magnitude and direction of the relationship we used (β) and R square to show how well the values fit the data. The Beta Coefficient gave an indication of how strongly each predictor variable influenced the criterion variable, for the greater the β value, the greater the impact of X on Y. The R square on the other hand indicated the percentage of variance in the dependent variable explained jointly by the dependent variables

4.0 DISCUSSION OF RESULTS

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

4.1 Profile of respondents

Out of the total of 109 respondents that were interviewed, 49.5% were male and 50.5% were female. Fifty five point five percent 55.6% were from Uganda Management Institute whilst 44.4% were from Tanzania Civil service College. Staffs with doctoral programmes were less than 3%, those with masters degrees accounted for 28.7 %, those with Bachelors degree accounted for 29.6% and diploma holders accounted for 25.9%. The majority of staff that accounted for 56% had served their institutions for over 5 years

4.2 Differences in Responses

To answer whether there is a significant difference between knowledge management practices in Uganda and Tanzania, one way ANOVA was used to ascertain any significant differences. The results for all the three strategies namely, knowledge acquisition, knowledge evaluation and application were not significant. Since the ANOVA results were not significant, we concluded

that there is no significant difference between knowledge acquisition, knowledge evaluation and knowledge application between the two countries.

4.3 Effect of KM practices on Innovation

To test the simultaneous effects of knowledge acquisition, knowledge evaluation and knowledge application on the innovation at Uganda Management Institute and Tanzania Civil Service College, multiple regression was carried out to determine the variance of the effect of KM practices on innovation. Table 1 displays the regression analysis results

Table 1: Multiple Regression Analysis

Independent Variables	Beta coefficient & Significance levels
Knowledge Acquisition	-.03
Knowledge Evaluation	.06
Knowledge Application	.70***
Model Summary	
R	.72
R Square	.52
Adjusted R Square	.50

***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 knowledge

- Initiate processes and policy's that reward staff who introduce best practices and encourage sharing and celebrating innovation success stories

In particular, CEO's should;

- Support cultures that promote learning, transparency and active use of knowledge by encouraging employees with diverse expertise and knowledge to share new ideas, support idea application in order to enhance existing value chains and create new knowledge (Dawson, 2000).

6.0 FUTURE RESEARCH

One of the areas that need further research is the effect of knowledge management practices on innovation in private and or public organizations other than service organizations since this study covered only Management development Institutions. Another important area that needs further exploration is the role of ICT in the relationship between knowledge management practices and innovation.

7.0 CONCLUSION

In order to keep abreast with increasing competition in the global marketplace, innovation must be an essential part of an organizations strategy. There is also need to adapt new ways that help staff at the individual, team and organizational-level, learn what others know, share best experiences and translate it into best practices. Since knowledge encompasses a set of strategies to create, safeguard, and use knowledge assets to create more value for an organisation, MDI's need to translate new knowledge into best practices that will their versatile clientele's needs. Such a strategy would allow more innovations in order to come up with outcomes that surpass customer's present expectations and enable Management development Institutes stay a head of competition

REFERENCES

1. Agere, S (2006). Strengthening Management Development Institutions: The Role of MDI's in Public Service Reform; strategies for improvement series No. 9 Commonwealth Secretariat.
2. Ahmed, P.K, Lim K.K & Loh, A.Y.E (2002). Learning through knowledge Management, Butterworth-Heinmann, Oxford.
3. Anumba C.J.; Baugh, C. &Khalfan, M.M.A (2002).Organizational Structure to Support Concurrent Engineering in Construction. Industrial Management and data systems, Vol.102 .No.5. Pp.260-270.
4. Argote, A. & Ingram, P. (2000). "Knowledge transfer: a basis for competitive advantage in firms" Organizational Behaviour & Human Decision Processes,Vol. 82 no. 1, pp.150-169
5. Birkinshaw, Julian. Why is KM so difficult? Business strategy Review, 2001, Vol. 12, pg 11-18.
6. Chinowsky, P.; Carrillo, P. (2007) Knowledge Management to Learning Organizations Connection. Journal of Management in Engineering ASCE,Vol. 23 No.3
7. Dawson, R. (2000). Knowledge capabilities as the focus of organizational development and strategy.Journal of knowledge management, Vol.4, No.4, pp.327, MCP UP Ltd.
8. Drejer, A. (2002). Situations for innovations management: toward a contingency model. European Journal of Innovation Management Vol.5 No.1, pp. 4-17, 2002.
9. Egbu C.O. (2004). Managing Knowledge & Intellectual Capital for Improved Organizational Innovations in the Construction Industry: an examination of critical success factors.
10. Fraser-Moleketi (2007). Opening Address to the African Management Development Institutes Network Conference-(Republished Paper).
11. Goh,S.C. (2002).Managing effective knowledge transfer. Journal of Knowledge Manangement,vol.6 No.1.pp.23-30

12. Gorelick, C. & Tantawy- Monsou, B., (2005). Poor performance through learning, knowledge management is the critical practice. *The Learning Organization*, 12,(2), 125-139.
13. Gupata, A&McDaniels, J (2002) Creating Competitive Advantage by Effectively Managing Knowledge framework for Knowledge Management. *Journal of Knowledge Management Practice*.
14. Holsapple,C.W.;& Joshi,K.D.(2002)Understanding Knowledge Management Solutions: the evolution of frameworks in theory and practice. *Knowledge Management systems: Theory and Practice*, Thomas Learning.
15. Hoon,H.T.(2003)Knowledge Management :An exploratory study on Malaysian Organisations.Dissertation for Masters of Business Administration,Pusat Pengajian Pengurusan Universiti Sains Malaysia.
16. Kamara ,j.M.,Anumba ,C.J,Carrillo,P,&Bouchlaghem,N.(2003).Conceptual Framework for Live Capture and Reuse of Project Management .*Construction Informatics Digital Library* <http://itc.scix.net/2003>
17. Kandampally, J. (2000). How does Knowledge Management Influence innovation and Competitiveness? *European Journal of Innovation Management*. Vol. 5 ,No. 1 , pp.18-26, 2002
18. Lubit, R. (2001).Tacit Knowledge and Knowledge Management: the keys to sustainable competitive advantage.*Organisational Dynamics*, Vol.29.No.4, pp-164-78.
19. Masoulus Basilius (1999).Evolution of the Knowledge Environment. *Knowledge Management Journal* Vol.2, Issue May, 1999.
20. Murray A.J (2008).Workplace Innovation: The Enterprise of the Future. Tipping points on the horizon. Opportunities for applying the enterprise of the future framework. *The Journal of Information and Knowledge Management Systems*.Vol. 38 No. 2, 2008
21. Nonaka I & Takeuchi. H. (1995). *The Knowledge –creating company*, Oxford University Press, New York, N.Y
22. Nonaka I. (1991). “The Knowledge Creating Company” *Harvard Business Review*, on knowledge.*Harvard Business Review* ,November/December
23. Payne,J. & Sheehan. (2000).Demystifying Knowledge Management best practice for the construction Insustry.*Construction Excellence*.
24. Rampersad,H. (2002). Increasing organizational learning ability based on a knowledge management Quick Scan. *Journal of Knowledge Management Practice* October 2002,QM Consulting .Netherlands
25. Reed,R.'DeFillip R. (1990).Causal ambiguity ,barriers to imitation and sustainable competitive advantage. *Academy of Management Review*,Vol.15 pp.88-102
26. Senge, P. (1990).*The fifth Discipline: The art and Practice of the Learning Organisation*.Doubleday-Currency, New York, NY.
27. Shields R, Holden, T & Schmidt, R.A (2000). “A Critical Analysis of Knowledge Management Initiatives in the Canadian Public Service: the impact of a knowledge – based economy on work in the public service, the virtual organization of expertise and knowledge”. Available at www.carleton.ca/innovation/km-fed.pdf accessed 7th February, 2001
28. Squier M.M., & Snyman, R. (2004). Knowledge management in three financial organizations: a case study
29. Syed-Ikhasan, S.O.S & Rowland, F (2004). “Benchmarking Knowledge management in a Public Organization in Malaysia” *Benchmarking - An International Journal* Vol. 11 no. 2, in press.
30. Wiig K.M (1993).*Knowledge Management Foundations-Thinking About Thinking-How People and Organizations Create , Represent, and Use Knowledge*, Schema Press,Arlington,TX