

FACTORS AFFECTING IMPLEMENTATION OF KNOWLEDGE MANAGEMENT PRACTICES IN STATE CORPORATIONS IN THE NATIONAL TREASURY IN KENYA

Mariam M. Yusuf (Corresponding author)

Department of Entrepreneurship and Procurement Development, School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology, KENYA

Dr. Kenneth Wanjau

Department of Entrepreneurship and Procurement Development, School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology, KENYA

ABSTRACT: *Globally government institutions are faced with demands to change and modernise their operations so as to facilitate development in the new 'knowledge' economy. Failure by Government Institutions to adopt knowledge management practices poses challenges in preservation of institutional memory due to frequent transfer of knowledge workers. Ineffective implementation of knowledge management practices leads to inadequate capacity to sustain Government projects which impacts negatively on the economic growth of the country. The study investigated the factors affecting implementation of Knowledge Management Practices. The objectives of the study included Organisational Structure, Organisational Culture, Information Technologies and Human Resource Capabilities. A census survey of middle level managers from Human Resource and Technical operations department based in Nairobi was conducted, using a structured self administered questionnaire. Data was analysed using SPSS. The findings revealed that organisational structures in Government organisations are hierarchical which hindered sharing of information, the existing organisational culture does not support and encourage creation and sharing of knowledge amongst employees, inadequate skills in information technology and computer networks to facilitate sharing of knowledge hindered knowledge management practices efforts and lack of defined responsibilities for knowledge management (KM) initiatives affected execution of KM in organisations. Recommendations included flexible organisational structures to support distribution of knowledge, a strong culture that values trust, openness and sociability to stimulate knowledge sharing, investing in information infrastructure to support distribution of knowledge and acquisition of requisite competencies and skills on effective implementation of knowledge management to ensure sustainability.*

KEYWORDS: Knowledge Management, Knowledge Economy, Knowledge Workers, Knowledge Sharing

INTRODUCTION

Local government institutions are faced with demands to change and modernise their operations so as to facilitate development in the new 'knowledge economy'. To remain globally competitive and keep abreast of these changes, local governments need to become aware of the significance of KM in achieving organizational and subsequent service delivery successes (Haricharan, 2004). As suggested by Grant (2001) among the innovations that have swept through the world of management during the past two decades KM has probably aroused the greatest interest and made the biggest impact. While the goal of KM has been the improvement of organisational efficiencies, effectiveness and competitiveness through knowledge, only moderate successes have been experienced to date, with recent reports suggesting the full benefits have yet to be realised (Schultze & Leidner, 2002). The sparse population of many knowledge repositories is popularly attributed to employees hoarding knowledge, or lacking the time or attention to contribute – with a common solution being the rewarding of contributions (Davenport & Beck, 2001). Considering the reforms within the State Corporations over the past few decades, it is evident that most State Corporations now follow a businesslike approach where the focal point of service provision is responding to citizen needs and providing integrated and comprehensive service delivery. Consequently, state corporations are accommodating the KM concept as a means of attaining a competitive edge, by using the human and intellectual resources within their organisations (Fowler & Pryke, 2003). As Ondari & Minishi (2007) suggests Africa is termed as a —Knowledge Society. This is backed by Drucker (2006) who contends that the basic economic source in Africa would no longer be capital or natural resources or even labor but knowledge. Banhenyi (2007) suggests that among the knowledge bank is Knowledge Management Africa (KMA) which has become the knowledge engine that drives appropriate development solutions for Africa. The mission of KMA is to promote the use of Africa's collective knowledge as a key development resource. A study carried out by Maingi (2007) brought into focus the need to mould knowledge management as an additional measure of the organizational profitability, sustainability and continuity. One of his conclusions was that many people are still not aware of what Knowledge management entails. This clearly indicates that Knowledge Management implementation in Kenya has not reached the required level, hence a lot has to be done in this area. The Government of Kenya acknowledges that an economic and institutional regime that provides incentives for the efficient use of existing knowledge and creation of new knowledge is one of the elements that allow effective exploitation of knowledge (RoK, 2007). The Kenya government appreciates the fact that knowledge economy is a window of opportunity to improve welfare and move along an accelerated path toward sustainable development by shifting the economy onto a higher performance path (Chifallu, 2011). As part of its development strategy, the Government of Kenya has put in place programmes to strengthen the adoption of knowledge management within the State Corporations. This is evidenced by Vision 2030, where Kenya is committing to her intentions of becoming a knowledge-led economy, wherein the creation, adoption and use of knowledge will be among the most critical factors for rapid economic growth.

LITERATURE REVIEW

As cited in (Evans, 2003), Peter Drucker is credited for having said that in contemporary society the most important source of wealth is knowledge and information. Knowledge Management can be used to create business value, generate competitive advantage, achieve business goals, and develop greater value from the core competencies of the business (Tiwana, 2001).

Organizational culture is believed to be the most significant factor in effective knowledge management (Gold, Malhotra, & Segars, 2001). An effective organizational culture can provide support and incentives as well as encourage knowledge-related activities by creating suitable environments for knowledge exchange and accessibility (Janz & Prasarnphanich, 2003). As suggested by (Ngoc, 2005) an organization must have a strong culture that values trust, openness, and sociability to stimulate people's interactions and knowledge sharing.

An effective knowledge culture encourages innovation, from the initial creative idea to the experimentation and sharing of insights with others. There is a need to encourage flexible and adaptable behaviour. Routines and processes need to be flexible as it encourages people to look for opportunities to work towards creative alternatives (Debowski, 2006).

Gold et al. (2001) argue that a team-based, non-hierarchical, self-organizing organisational structure is the most effective for knowledge sharing. Claver-Cortés et al. (2007) indicated that the important role of the flexible organisational structures on successful KM implementation. They further suggest that flexible structures help achieve decentralisation of decision-making process by facilitating the communication process at all organisational levels. In the same vein, Al-Alawi, Marzooqi & Mohammed (2007) emphasized that organisational structure characterized by participative decision making, ease of information flow and cross-functional teams contribute positively to support knowledge sharing. Wang and Ahmed (2003) believe that for the structure of knowledge-based organizations it must be created in higher levels of structural dimensions. This level includes trust-based relationship, externally-oriented interactive relationship, emotionally- inclusive relationship.

Davenport and Prusak (2000) regarded information technology (IT) as both a key contributor and an enabler in the field of knowledge management. Marwick (2001) proposed that a number of IT tools be applied to the different knowledge creation processes. IT that is a part of effective knowledge management can thus be classified into two types: Communication technologies (e.g., e-mail, video conferencing, electronic bulletin boards, and computer conferencing) and decision-aiding technologies (e.g., decision-support systems, expert systems, and executive information systems) (Song et al., 2001). Stenmark (2002) has suggested a multi-perspective view of intranet, a technology that helps in creating an effective knowledge management environment, which includes Information perspective, Awareness perspective and Communication perspective. Haldin-Herrgard (2000) maintained that a great deal can be done through modern IT to diffuse explicit knowledge. It is also becoming easier to capture tacit knowledge with the aid of retrieval

technologies (Singh et al., 2006). Mohamed, Stankosky & Murray (2006), through their research identified Information technology as a variable that could impact knowledge sharing.

The efficiency of KM depends on institutional capacity and trained human resource that can disseminate knowledge quickly. As Nair (2005) put it Governments need to continually learn in order to remain relevant to the constituents they serve. In order to gain competitive advantage from KM, organizations need to identify core competencies, or integrated knowledge sets, that distinguish them from competitors and add value for customers (Bohlander, Snell and Sherman, 2001). Employees create knowledge within the organization and a significant part of the organizational knowledge is saved in their minds, thus small mutation in their task positions can impose a fundamental effect on its total performance (UN, 2003).

A research carried out by Mosoti and Masheka (2010) on Knowledge Management in Kenya (Nairobi) revealed that Knowledge Management practices though practiced is not well understood by most organizations within Nairobi. The findings indicated that most of the challenges faced by organizations in Nairobi are how to create and implement KM Practices as part of organizational culture, organizational strategy and organizational leadership. Though most organizations confirmed that they use IT, it was noted that there is need for a synergy with other enablers' of KM such as organizational culture, organizational strategy and organizational leadership.

The conceptualised relationship between the independent variables and dependent variable is shown in Figure I.

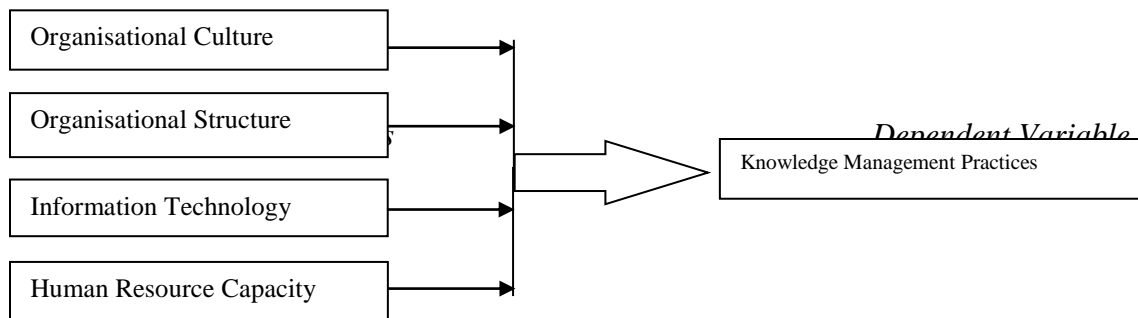


Figure 1 Conceptual framework

METHODOLOGY

The study used descriptive research. The sampling frame was a list of Middle Managers in Technical and Human Resources departments. The study utilized a self administered structured questionnaire, which was refined after a pilot study. The Cronbach's alpha reliability was above 0.75 for all variables indicating that the data gathered had relatively high internal consistency (Zinbarg, 2005). A census of all middle level managers was conducted. This was a total population of 60 middle level managers. The study used descriptive statistics, correlation coefficient, regression analysis and ANOVA to show the relationship between dependent variables and the independent variable.

RESULTS

50 of the 60 questionnaires distributed were completed and returned, constituting a response of 83%. The findings indicate that majority (60%) of respondents' organisational structure was hierarchical. Majority (86%) of the respondents felt that the type of the organizational structure affected knowledge management practices in the organization. On KM strategies majority (77%) of the respondents affirmed that KM strategies were employed in individual departments while only (23%) indicated that Knowledge Management (KM) strategies were employed in organization wide. Majority (68%) of the respondents indicated that there was no formal department responsible for knowledge management. On structure of knowledge repositories in the organisation majority (72%) of the respondents indicated that knowledge repositories was shared among individual departments while only (14%) of the respondents indicated that knowledge repositories was shared organization-wide.

Findings on whether there is formation of teams, work groups and communities of practice within the organisations majority 40% indicated that they strongly agreed that they had this in place, while 34% agreed 8% disagreed and 4% strongly disagreed. On whether KM supports learning and sharing of knowledge among individuals in various departments, Majority of respondents 32% strongly agreed that KM, 38% agreed, 10% disagree and 6% strongly disagreed.

Findings on whether organisational culture encouraged sharing of knowledge and experiences (16%) of the respondents agreed while majority (84%) disagreed. Majority of respondents (22%) indicated that the culture of the organization fostered collaboration and team working while (78%) disagreed. Only (18%) of the respondents affirmed that creativity and taking initiatives was fostered at the workplace while (82%) disagreed. On having a climate of openness and trust in organisations the findings showed that majority (44%) strongly disagreed, (12%) disagreed while (12%) agreed and only (8%) strongly agreed. On whether cooperation and knowledge sharing activities are rewarded and promoted, majority (54%) strongly disagreed, (14%) disagreed while (12%) agreed and only (8%) strongly agreed.

The findings show that majority (58%) indicated that the organization lacked adequate computer network to facilitate sharing of knowledge. On whether knowledge repositories are updated regularly (10%) strongly disagreed, (50%) disagreed while (14%) agreed and (10%) strongly agreed. The findings also show that only (8%) of respondents strongly agreed that IT applications that support KM are user friendly, (36%) agreed, (16%) disagreed and (14%) strongly disagreed.

On Human resource capacity (28%) of the respondents indicated that there existed defined responsibilities for KM initiatives in their organizations, while majority (72%) disagreed. Findings on whether organisations undertook formal training programs to enhance skills and competencies in KM, a majority (66%) of respondents agreed while (34%) disagreed. On whether organisations encourage staff to constantly generate new ideas (14%) strongly agreed, (12%) agreed, while (36%) disagreed and (18%) strongly disagreed. Findings also show that

(4%) strongly agreed that Management provides time and resources for employees to take part in learning and sharing exercises, (12%) agreed, while (44%) disagreed and (28%) strongly disagreed.

Multiple regression analysis was used to determine whether independent variables organisational culture (X1), organisational structure (X2), information technology (X3) and human resource capacity (X4) simultaneously affected the dependent variable Knowledge Management Practices (Y). The findings indicated that the independent variables organisational culture, organisational structure, information technology and human resource capacity explained 89.6% of factors affecting implementation of KM practices in state corporations in Kenya.

DISCUSSION

The study was to investigate the factors affecting implementation of Knowledge Management Practices in State Corporations in Kenya. The key variables affecting implementation of Knowledge Management Practices were thought to be organisational culture, organisational structure, information technology and human resource capacity. A review of related literature and empirical studies informed the formulation of the research instrument used to obtain the research data. The results indicated that there was a positive relationship between the independent variables organisational culture, organisational structure, information technology and human resource capacity, and the dependent variable knowledge management practices.

The findings indicated that most organisational structure in state corporations are still hierarchical in nature, thus an impediment on knowledge management sharing within the organisation. This echoed findings by Lee and Choi (2003) that hierarchical organizational structure cause deviation and discontinuance in ideas due to its time consuming communication channels and this hampers effective implementation of knowledge management practices in the organization. On organisational culture the findings revealed that most organizations did not encourage sharing of knowledge, as the existing organizational culture did not support and encourage the sharing and creation of knowledge amongst employees. The findings concurred with Gumbley (1998) that internal culture is very important for the development and transmission of knowledge within the organization. Findings also indicated that the culture of the organization did not foster collaboration and team working in the organization. These corroborated with findings by Bhatt (2001) that core values that influence the knowledge sharing in organizations include; collaborative orientation, flexibility, open communication, interaction, and a willingness to trust. The findings affirmed that most state corporations lacked adequate computer network to facilitate sharing of knowledge which hindered knowledge practices. These findings concurred with Mills and Smith (2011) that organization that lacks effective information technology infrastructure finds it challenging to facilitate knowledge sharing across the organization. The findings indicated that majority of organizations' website are not updated regularly, which hindered the contribution of the organization website on promotion of knowledge acquisition and sharing practices amongst the organization staff. This supported finding by Smith and Schurink (2005) that integration of the organization website with online KM resources helps in the promotion of knowledge acquisition and sharing practices amongst the organization staff. The findings revealed that there was lack of defined responsibilities for

KM initiatives in state corporations which affected effective execution of knowledge management practices in organizations. This concurred with Dobrai and Farkas (2007) findings that organization that lack clear defined responsibilities for knowledge management initiatives hindered effective execution of knowledge management practices across organization departments.

IMPLICATION TO RESEARCH AND PRACTICE

Previous studies carried out on Knowledge Management included comparison of KM practices in Private and Government sector Park (2007). Relationship between organisational factors and the process of knowledge transfer (Rowland and Syed, 2004). Mosoti and Masheka (2010) study established that most challenges experienced are on implementation of KM practices, however the study did not focus on factors affecting the implementation of KM This research therefore provides new knowledge to guide on effective implementation of knowledge management practices.

CONCLUSION

State corporations need to become aware of the significance of KM in achieving organizational effectiveness, quality service delivery and to operate in an environment characterised by transparency and accountability. State Corporations still operate in traditional structures where decisions are made at the top. Hierarchical structure negatively affects dissemination of information and can be detrimental to Knowledge Management Practices causing limited access to information by other departments within the organization. State Corporations should encourage organizational culture that foster collaboration, trust, team work which are most significant in the implementation of knowledge management practices. Organization Culture creates suitable environments for knowledge exchange and accessibility. Information Technology plays a pivotal role in Knowledge Management practices as it determines how new knowledge is sourced, stored and disseminated in the organisation thus state corporations should endeavour to have IT infrastructure that will support knowledge management practices across the organisation departments. Human Resource Capacity determines the requisite skills to effectively execute knowledge management practices. Based on the study findings, the type of Organisation Structure, nature of Organisation Culture, level of application of Information Technology and Human Resource Capacity invariably affect implementation of Knowledge Management practices in state corporations in Kenya.

FUTURE RESEARCH

Further areas of research in Knowledge Management in state corporations that need to be conducted include the effect of Knowledge Process Capability ; Knowledge Acquisition, Knowledge Conversion, Knowledge Protection and Knowledge Application on Organizational Performance. This is because Knowledge Process Capability is the backbone of Knowledge Management practices, and if not managed well, there is a risk of organisations not reaping the

benefits of Knowledge Management. It will be important therefore to explore further whether there is a link between Knowledge process capabilities and organisational performance.

REFERENCES

- Al-Alawi, A. I., Al-Marzooqi, N. Y., & Mohammed, Y. F. (2007). Organizational Culture and Knowledge Sharing: Critical Success Factors. *Journal of Knowledge Management*, 11(2), 22-42.
- Banhenyi, S. (2007). *A Knowledge Engine Driving Africa's Development*. A paper presented in KMAfrica, Nairobi. Retrieved on September 3, 2012 from <http://www.kmafrica.info/news,5-18>.
- Bhatt, G. (2001). Knowledge Management in Organisations: Examining the Interaction Between Technologies, Techniques and People. *Journal of Knowledge Management*, 5 (1), 68-75.
- Bohlander, G., Snell, S. & Sherman, A. (2001). *Managing Human Resources*. USA: South-Western College Publishing.
- Chifallu, J. (2011, August 24). *Varsity-linkage to Boost Knowledge economy*. The standard, Nairobi: The standard Group
- Claver-Cortés, E., Zaragoza-Sáez, P., & Ortega, E. P. (2007). Organizational Structure features supporting Knowledge Management Processes. *Journal of Knowledge Management*, 11(4), 45-57. Retrieved July 17, 2012 from ProQuest database.
- Davenport T. H. & Marchand D.A (2001). Is KM just Good Information Management? *National Post Online*, Retrieved July 24, 2001 from <http://www.nationalpost.com>
- Debowski, S. (2006). *Knowledge Management*. Qld. New York: Old: John Wiley & Sons Inc.
- Dobrai, K., & Farkas, F. (2007). Professional Service Organizations Meeting the Challenges of a Changing Business Environment. *International Journal of Knowledge,Culture and Change Management (Common Ground Publishing, Australia)*, 7(3): 73-84
- Drucker, P. F. (2006) Classic Drucker: Essential Wisdom of Peter Drucker. *Harvard Business Review*. Boston, MA: Harvard Business School Publishing.
- Evans, C. (2003). *Developing and Retaining Organisational Knowledge*. Roffey Park: Horsham
- Fowler, A. & Pryke, J., (2003). KM in Public Service Provision: The Child Support Agency. *International Journal of Service Industry Management*, 14(3), 254–28.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems*, 18(1), 185-214. Retrieved September 6, 2012, from ProQuest database.
- Gumbley, H. (1998). Knowledge Management. *Work Study*, Vol. 47, No.5, pp. 175– 177. Retrieved August 3, 2012 from http://www.emeraldinsight.com/browse.htm?content=bibliographic_databases
- Grant, R. M. (2001). *Managing Industrial Knowledge: Creation, Transfer and Utilization*. London: Sage Publications.
- Haldin-Herrgard, T. (2000). "Difficulties in Diffusion of Tacit Knowledge in Organizations", *Journal of Intellectual Capital*, Vol. 1 Iss: 4, pp.357 – 365
- Haricharan, S., (2004). KM in the South African Public Sector . KSP hologram newsletter 3. Retrieved on September 27, 2012 from <http://www.ksp.org.za/holonl03.htm>.

- Lee, H. & Choi, B. (2003). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *Journal of Management Information Systems*, Vol. 20 No. 1, pp. 179-228. doi: 120083937394801865
- Maingi, N, N. (2007). Knowledge Management in a Competitive Economy: *The Knowledge Management Readiness Score (KMS)*. Retrieved July, 20 2012 from <http://www.strathmore.edu/news/knowledge-mngt.php>
- Marwick, A.D. (2001). Knowledge Management Technology. *IBM Systems Journal*, 40(4), 814-830. Retrieved on September 10, 2012 from <http://www.research.ibm.com/journal/sj/404/marwick.html>
- Mills, A. and Smith, T. (2011). Knowledge Management and Organizational Performance: A Decomposed View. *Journal of Knowledge Management* 15(1): 156-171. Retrieved on August 22 from <http://dx.doi.org/10.1108/13673271111108756>.
- Moffett, S., McAdam, R., & Parkinson, S. (2003). An Empirical Analysis of Knowledge Management Applications. *Journal of Knowledge Management*, Vol. 7 No. 32003, pp. 6-26. DOI 10.1108/13673270310486696
- Mohamed, M., Stankosky, M., & Murray, A. (2006) "Knowledge Management and Information Technology: can they work in perfect harmony?", *Journal of Knowledge Management*, Vol. 10 Iss: 3, pp.103 – 116 DOI: 10.1007/213773670410587100
- Mosoti, Z. & Masheka, B. (2010). Knowledge Management: The Case for Kenya. *The Journal of Language, Technology & Entrepreneurship in Africa*. Vol. 2. No.1. 2010, ISSN 1998-1279 107
- Nair, P. (2005). *Knowledge Management in the Public Sector. e-Government in Asia*. Singapore:Times Publishing
- Ondari, O. E. & Minishi, M. M. (2007). *Enhancing Governance, Performance Effectiveness and Capacity to Deliver Basic Government Services in Sub-Sahara Africa through Knowledge Management*. Paper presented at The Knowledge Management Africa (KMA) second biennial conference 2007, Nairobi, Kenya: 1-15
- Park, S. (2007). *The Comparison of Knowledge Management Practices Between Public and Private Organizations: An Exploratory Study*. Retrieved on August 10, 2012 from <http://www.proquest.umi.com>.
- Republic of Kenya (2009). *Ministry of Science and Technology Science, Technology and Innovation Policy and Strategy*. Retrieved on June 30,2012. From http://www.scienceandtechnology.go.ke/index.php/downloads-1/doc_download/67-science-a-technolgy-a-innovation-policy
- Rowland, F. and Syed-Ikhsan, S.O.S. (2004). Benchmarking Knowledge Management in a Public Organization in Malaysia, *Benchmarking: An International Journal*, Vol.11, No.3, pp. 238-266
- Schultze, U. & Leidner, D. E. (2002). "Studying Knowledge Management in Information Systems Research: Discourses and Theoretical Assumptions", *MIS Quarterly*, Vol 26, No. 3, pp213-242.
- Singh, M.D., Shankar, R., Narain, R., & Kumar, A. (2006) "Survey of knowledge management practices in Indian manufacturing industries". *Journal of Knowledge Management*, Vol. 10 Iss: 6, pp.110 – 128

- Smith, H. & Schurink, W. (2005). The Interface between Knowledge Management and Human Resources: A Qualitative Study. *South African Journal of Human Resource Management*, 3(1), 6–13.
- Stenmark D. (2002). "Information vs. Knowledge: The Role of Intranets in Knowledge Management", Proceedings of the IEEE 35th Annual Hawaii International Conference on Systems Sciences. Hawaii, Honolulu. United States.
- Tiwana, A. (2001). *The knowledge Management Toolkit: Practical Techniques for Building Knowledge Management System*. Upper Saddle River, NJ: Prentice Hall Inc.
- United Nations, (2008). *Evaluation of Knowledge Management Networks in pursuit of the Goals of the Millennium Declaration*. Retrieved on October 25, 2012 from <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/282/37/PDF/N0928237.pdf>
- Wang, C.L., & Ahmed P.K. (2003). "Structure and structural dimensions for knowledge-based organizations", *Measuring Business Excellence*, Vol. 7 Iss: 1, pp.51 – 62 DOI: 10.1108/13683040310466726
- Zinbarg, R. E., Revelle, W., Yovel, I., & Li, W. (2005). Cronbach's a, Revelle's b, and McDonald's wH): Their Relations with each other and two Alternative Conceptualizations of reliability. *Psychometrika*, 70 (1), 123-133 - 120. DOI: 10.1007/s11336-008-9101-0