

Closing the Knowledge/Experience Gap between Generations of Civil Servants using IT knowledge Transfer Platform

¹Umo-OdiongAsuquo A., ²Emmanuel UbeneOyo-Ita And ³Ogban, UsangEkume

¹IT Program Analyst, Akwa Ibom State Ministry of Lands & Town Planning.

²Assistant Lecturer Department of Computer Science, Cross River University of Technology Calabar.

³Lecturer III, Department of Business Education (Computer Education), Cross River State College of Education, Akamkpa.

Corresponding Author: Emmanuel UbeneOyo-Ita

Abstract

Effective Civil Service Administration is at the core of developing a strong, productive and vibrant workforce. However, in the face of a continuously retiring workforce and shortage of experienced personnel, the role of knowledge management in propelling administrative functions can therefore not be underestimated as it focuses on integrating people, processes and technology to nurture and share knowledge. This study focused on identifying and analysing the knowledge management culture within Akwa Ibom State Civil Service and the related factors that either impede or enhance effective service administration; as a proactive measure towards alleviating the administrative loopholes created by generational gap and poor resource planning. Findings showed the need for knowledge transfer and retention through the implementation of knowledge information systems, mentorship and organisational learning programs as an innovative approach towards ensuring an effectively consistent civil service administration.

I. INTRODUCTION

Human resources are the strongest and most valuable resource any organisation can engage because their efforts and intelligence are the foundation of organisational success or failure, as the case may be (Sivz, 2013). Even the performance of IT machinery and infrastructure depends on management skill cultivated by human resource. As such, their skills and technical expertise is crucial to delivering the most competitive advantage.

In public administration, the core of Human Resource Management is in creating and managing guidelines for recruiting, selecting and training new employees, compensating and rewarding employees appropriately, discipline and termination of appointments as well as retirement, resignation, etc. Poor implementation of these functions has the potential to create inefficiencies, reduce effectiveness and create liabilities for government (Ingraham and Rubaii, 2017).

In light of this, knowledge management (KM) offers a platform to improve productivity of system administrators in the face of an increasing human cost of system administration against the cost of hardware and software tools (Velasquez, Durcikova and Sabherwal, 2009). The focal point of Knowledge management (KM) generally is on integrating people, processes and technology in order to direct organisational structure towards stimulating and nurturing the sharing and use of knowledge: firstly, on the most appropriate methods to locate, create, capture and share knowledge; and secondly on technology needed to facilitate storage, accessibility and use over time (Lodhi and Mikulecky, 2010). Efficient KM guarantees the preservation and improvement of quality public administration and increases its effectiveness (Kallinger, 2012).

This study was conducted to ascertain the knowledge management culture as regards its creation, capturing, sharing, digitised storage and transfer within Akwa Ibom State Civil Service. Simultaneous, the effects of the lack of knowledge transfer structures coupled with inconsistent employment culture within the State Public Service was investigated in order to proffer an effective solution powered by technology and synonymous with the administrative dynamics as well as the political culture of the state, as a proactive measure towards alleviating the administrative loopholes created by generational gap and poor resource planning.

II. RELATED WORK

A. Knowledge Management Overview

Knowledge management provides the most up-to-date techno-management trend for improving the work process and creating value for organizational operations as it has the largest influence on competitiveness, strategic development and growth (Surbakti, 2015). Nonaka and Takeuchi's (1995) SECI model of KM expresses Polanyi's (1966) differentiation of knowledge management which is broken down into explicit and tacit knowledge.

Tacit knowledge is regarded as either technical: which encompass precise capabilities and competences applicable to a specific context; or cognitive which are mental models that include ideas, beliefs and schemes that enable individuals find their way in the world and achieve personal goals (Sejdija, 2012). This tacit knowledge although difficult to quantify can only be transferred with appropriate communication between transferor and transferee. Trust is a major factor that determines the transfer of technology (Verberne, 2012). Odigie and Li-Hua (2008) also identifies trust as an important factor for successful transfer of tacit knowledge and deliver competitive advantage; but expresses difficulty in quantifying trust. More so, where trust is limited and training is lacking, willingness to share knowledge reduces and the KM environment becomes ineffectual. Lodhi and Mikulecky (2010) however argue that people are the most important factor/component in a knowledge creation, sharing and transfer system because managing knowledge is dependent on their willingness to share and reuse it. Nevertheless, Trautman (2017) asserts that knowledge transfer be it through sharing, learning or any other KM tool, spans beyond replicating expertise, wisdom and skill in workers through in-service trainings and retraining. Therefore, it makes available the right skill just in good time to ensure workforce preparedness, productivity, innovativeness and competitiveness.

Nevertheless, in order to successfully transfer tacit knowledge, it is important to establish trust and an appropriate communication channel between transferor and transferee while acknowledging and addressing individual uniqueness and difference applicable to each generation of employee as a vital tool towards organisational effectiveness.

B. Management of Knowledge in Public Service

Knowledge Management in Public Service serves to improve work performance of public servants by transforming them to knowledge workers. Lodhi and Mikulecky (2010) argue that knowledge systems associated with understanding the relationships between administrative authorities and political actors that public managers are directly dependent on, can be highly unstructured and as such difficult to systemise and automate. Knowledge at the level of administrator and policy makers is usually created at an individual level hence it is difficult to codify, standardise and link to other sources and transformers of knowledge in public parastatals.

CASE I: Pakistani Public Service (Lodhi and Mikulecky, 2010).

The Pakistani public service has been riddled with inefficiency and low performance arising from years of political turbulence, systemic corruption of public enterprise and regional instability powered by influential connections and vested interests of civil

and military bureaucracy (Lodhi and Mikulecky, 2010). Reasons that drive the need for knowledge management in the public sector arise from the need to enhance internal collaboration, capture and share best practices and also provide e-learning. In view of this, suggested steps towards improving public service performance include:

- Clear Knowledge Map for the Sector
- Clear strategic goals on knowledge management support for government and public governance.
- Integration of knowledge management into governmental activities
- Awareness of Government work as knowledge work par excellence

CASE II: The Austrian Federal Ministry of Internal Affairs (Heisig, 2016)

Research findings from an audit into knowledge management aimed at assessing its strategic concept and organisation, “fitness-for-purpose” of some KM instruments and use of performance indicators for knowledge management, shows that Implicit knowledge based on Polanyi (1985) has not been systematically addressed. However, knowledge retention for planned retirement or resignation are addressed with classical HR instruments such as job descriptions, training, frequent exchange of experiences and meetings, job rotations and on the job training. Further techniques deployed also include structured exit interviews and analysis. Nevertheless, various existing knowledge databases also provide access to internal content via a centrally maintained intranet although their search capability below acceptable standard. Study recommendations were directed towards: the development of an inter-ministerial Federal KM strategy; to establish a coordination function including a KM working group; to use human resource management as a starting point for a cross-functional KM approach; and to integrate KM indicators into the new impact-oriented budgeting approach. Given that an estimate of over 36% of staff will retire by 2023, further development of a Federal Intranet to incorporate discussion forum and social networking with the aim to preserve knowledge from leaving employees was the most viable solution proposed.

CASE III: THE GERMAN FEDERAL GOVERNMENT

Knowledge management in the German public service is aimed at improving efficiency and reducing cost while maintaining high quality service through E-Governance activities which digitalizes administrative work through a central information and knowledge management platform which enables users access experiences from other projects to identify reusable solutions (Bundesregierung, 2014). According to (Tsintsifa, 2014) the knowledge management system comprises 3 platforms:

- A public internet platform for transparency, information and participation of users.
- A Federal Intranet: an internal network for synergies and innovation to support information sharing about re-usable solutions and innovative ideas
- A program specific platform which supports the management and delivery of the program.

Practically the KM tools and instruments used within the German department of Administration are tailored to reflect the different tasks of each departmental unit: one department uses a Wiki to capture experiences from internal organisational development projects; another department maintains a “Handbook” where the most important work-related information is recorded; another department implemented a database with details recorded about legal regulations and court decisions.

III. METHODOLOGY

An investigation into the knowledge transfer strategy adopted in civil service administration of Akwa Ibom State required a focused study on a properly defined sample area. Hence, the Civil Service Commission, an apex parastatal of administration among the 27 Government Ministries, departments and agencies, was selected as a case study to obtain primary data, detailing real life experiences from respondents. This selection was conducted using a random stratified sample: because the commission’s mandate strategically empowers it to execute general administrative functions in the entire service e.g. recruitment, promotion, retirement, maintenance of service records and to ensure continuity of service among senior officers of different parastatals within the service; to ensure proper alignment of objectives and methods used. Questionnaires were distributed to recruitment officers to gather data required to meet the objective of identifying the employment and knowledge retention culture/policy within the commission. Results obtained were analysed to deduce the most likely effects of the investigated culture on the State Civil Service administration. Semi structured interviews were also conducted via telephone calls to 20 employees, equally distributed among different representative office cadres and salary grade levels to ascertain their level of receptiveness to the principles of knowledge transfer and retention. Further information obtained through this method was aimed at corroborating the recruitment manager’s responses on the frequency of knowledge transfer activities in the state civil service.

IV. RESULTS

A. On Recruitment

Study results showed that the statutory responsibility of the civil service commission with

regards to recruitment was conducted every 4 years for senior cadre civil servants from SGL 8, as stipulated and guided by the civil service scheme of service. However economic and political factors alongside personnel needs within the service were identified as huge dependencies which regulated and altered the frequency of recruitment. Internal selection structures such as aptitude tests and interviews conducted by a board of experts and guided by the scheme of service were also identified as proactive measures to ensure competence and maintain specified service standards through the recruitment process.

B. On Knowledge Transfer And Retention

Findings revealed that no permanent, consistent IT-based or manually oriented knowledge transfer and retention structures existed in the case study as corroborated by both Administrators and employees from different cadre and SGL. However, 70% of respondents admitted that work schedules are usually distributed randomly to employees at the discretion of their departmental Administrator or Director, based on the provisions of the scheme of service. In service courses and trainings are organised periodically to develop knowledge. Nonetheless, the experiences of senior officers throughout their service years are not captured effectively as succeeding officers and direct subordinates to retiring officers are only mandated to understudy their predecessors for 6 months to 1 year before retirement from service.

C. Further Analysis and Deductions

One significant role of Akwa Ibom State (AKS) civil service is to ensure that Government policies yield tangible services for the populace of the State (Ogunrotifa, 2012). Study findings showed that despite the proactive structures put in place to ensure that high standards are maintained during recruitment, poor adherence to the recruitment schedule as guided by the scheme of service creates a vacuum. This vacuum becomes imminent as more employees retire from service and the need arises for replacement of skilled personnel. According to Balasubramanian (2014) recruitment is the first step of staffing aimed at attracting qualified job candidates to fill up vacancies/ skilled needs in the service. The effect of inconsistent recruitment is in the shortage of personnel. Consequently, Government cannot function efficiently and effectively in the absence or shortage of professional civil servants with experience (Ogunrotifa, 2012).

In accordance to Cox’s (2013) opinion of knowledge transfer, as a process whereby experienced employee share or distribute their knowledge, skill and behaviour to their subordinates. Consequently, a continuously retiring workforce of old generation civil servants coupled with a poor recruitment and manpower training structure raises

the need for an effective knowledge capturing, transfer and retention strategy in order to extract tacit knowledge and store in an explicit format as a means to ensure understanding, continuity and uniformity of work processes in compliance with prescribed service standards of the state civil service.

Furthermore, the inexistence of an effective knowledge transfer and retention structure has the tendency to create a lack of understanding among the workforce on how they impact business goals. According to Cox (2013), this development causes slow productivity and role confusion in the service.

Although the civil service is not profit oriented, random distribution of work schedule at a director's discretion can be biased. This scenario of Favouritism in job distribution creates an environment where an administrator shows personal preference towards one staff over another (Kwon, 2005; Aydogan, 2012); an instance which negates the principles of a knowledge environment in the area of fair development and distribution of skill and experience among employees of the state civil service.

D. 4 to 6 Months of Mentorship/Understudying a predecessor:

Research findings showed that apart from the training and re-training of personnel on work ethics and skill optimisation, mentorship between skilled and unskilled personnel only existed at an unofficial and unstructured and informal level, while direct formal mentorship was conducted between an outgoing (mostly retiring) Administrator and their direct successor using a time span of 4 to 6 months. It is noteworthy to assert that mentorship is an effective means to facilitate knowledge transfer and build intellectual capacity (Karkoulian, Halawi and McCarthy, 2008). Although informal mentoring tends to correlate more with KM principles in terms of willingness to share and learn, it usually lacks management design, support and reward. By implication, this means the current mentorship system may not be effectively explored to reach its highest potential. Consequently, human resources available may not be adequately equipped to take over tasks. This creates the need for succession planning which considers who will take over as well as how well equipped they are to take over.

V. RECOMMENDATION

Study findings have shown the need to capture, store and re-use precisely acquired knowledge by the ageing/experienced but retiring workforce. Surbakti (2015) attests that the outcome of this process can be beneficial in decision making, for preventing past failures and can also be used as a guideline to treat recurrent administrative issues. In a bid to achieve this, the first and most crucial step

essential to the replication of knowledge has to do with capturing it from its tacit state to an explicit state which can be accessed, decoded and utilised by any succeeding generation of civil service employees regardless of the frequency at which new public administrators are employed to replace the retiring ones. Considerations were also made concerning unstructured knowledge with regards to relationships with Political office holder which is usually subject to individual differences and preferences of individuals involved. In summary, the following recommendations were made:

A. Creating a Knowledge Environment

According to Mikulecky and Lodhi (2010), creation and sustenance of knowledge environment requires actions to be directed towards the following cornerstone initiatives:

- Evaluation of current forms of knowledge to improve sharing.
- Adoption of a participative approach to knowledge access.
- Promoting effective integration of knowledge policies

However, practical considerations to successfully create a knowledge environment according to Kopac and White (2017) are summarised as follows:

- 1) **Identification of Critical Knowledge:** As experienced and knowledgeable administrators retire from the state civil service, critical knowledge ought to be identified first as an active step towards addressing potential loss of critical knowledge and the resulting effects.
- 2) **Integrate Learning into Work Process:** To successfully create a knowledge environment, it is necessary to integrate organisational learning structures into every work process. This can be achieved by reorganising learning-focused mentoring programs whereby participating workers are mandated to reflect and share on the impact of such programs and enhancing performance management systems alongside job rotation.
- 3) **Learning Flexibility:** knowledge is generally constructed hence there is important to understand how a learner creates knowledge and how the environment impacts its construction. Understanding the preferred learning pattern (visual, audio, hands-on, etc) of an employee gives understanding as to the most effective approach for organisational learning and knowledge transfer.
- 4) **Acknowledging Knowledge Owners and appreciating Sharing Efforts:** Overcome

knowledge hoarding by recognizing ownership and acknowledging employee efforts towards sharing. Failure to do this may cause skilled employee not to share knowledge. They may however, use their social influence based on their expertise to achieve personal goals at the expense of collective office administrative goals.

5) **Reward Systems:** a competitively autonomous knowledge sharing environment where rewards are collected based on the assessed value of knowledge contributed is bound to empower employees to share expertise and capitalize on each other’s contributions for organisational innovation.

B. Systematic Knowledge Integration

Karkoulian, Halawi and McCarthy (2008) opine that any new knowledge created in an organisation gives capacity for competitive advantage. However, this potential can only be maximized through intensive knowledge integration within a continuous knowledge life cycle.

Knowledge Retention Methodology: the proposed steps to be adopted and considerations are highlighted as follows:

	STEPS	CONSIDERATIONS
I	Identification of core knowledge carriers	<ul style="list-style-type: none"> • Complexity of knowledge • High Degree of Implicit/Tacit Knowledge
	Selection of Recipients	
	Selection of appropriate KM method	<ul style="list-style-type: none"> • Storage media considerations: print, audio, video, image • Appropriate formats corresponding with type of knowledge • Availability of technology • Ease of use/ robustness of storage technology
	Implementation	<ul style="list-style-type: none"> • Knowledge capture in routine projects • Transfer of learning into ongoing processes. • Interactive functions enabled to enhance knowledge creation by commenting, discussing and authoring. • Develop an Intranet with incorporation of technologies that will aid comments and discussion forum and

		well as social networking. <ul style="list-style-type: none"> • Integrate role specific guidelines customized to suit the experiences that may reoccur and manage interrelationships with other cadres in the service. • Development of a knowledge management toolbox which will serve as a collection of instruments used to share experience.
	Debriefing and Exit Interview	<ul style="list-style-type: none"> • Critical knowledge areas • Work procedures • Story telling on relationship management and work instances

B. Benefits

The fundamental benefits in view of the implementation of KMS in the state civil service administration include:

- Innovation in Administrative service delivery.
- Minimal loss of knowledge of retiring workers
- Prompt response to emergency situations that require knowledge transfer e.g. unexpected loss of a critical administrative expert.
- It helps set best practice standards and improves consistency.
- Reduces over reliance on a single expert individual
- It creates an enabling environment where administrative officers can come on board faster and establish understanding of their roles and job description thereby stirring up productivity.

Critical Success Factors to the Successful Implementation of KMS.

Based on Mikulecky and Lodhi (2010), some of the critical success factors associable to the effective implementation of knowledge management principles in AKS public service administration were summarised as follows:

- Top Management Support
- Creation of a Wide Bias and inclusion of Users
- Robust IT Infrastructure and Support System
- Internal Marketing, training and awareness

VI. CONCLUSION

The effect of Poor Knowledge Capturing, Transfer and Retention compounded by an Inconsistent Recruitment culture which leads to shortage of

personnel, is reflected in the loopholes found in administrative procedures and shortage of expertise. Retired employees vacate office without sharing most of their experiences to the relevant succeeding generation of officers hence there is a continual degradation of service delivery.

Failure to translate research knowledge into action contributes to professional inequities and wastages (Ward, House and Hamer, 2009). Knowledge translation encompasses the exchange, synthesis and application of research results. To effectively forestall the effects of poor recruitment culture in the face of an increasingly retiring workforce, the following IT based knowledge transfer and expertise retention structures are recommended:

Efficient knowledge management through automated capturing, storage and transfer strategies can guarantee the preservation of administrative standards as well as the improvement of quality of service through innovative knowledge working (Kallinger, 2012). Thus, Public Service Organisations can maintain higher productivity, effectiveness and performance culture through continuous development, diffusion and utilisation of knowledge and intellectual capital assets with the aid of Technology.

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