

## Assessment of Practices and Challenges of Knowledge Management in Selected Government Organizations: The Case of Addis Ababa City Administration and Oromia Region

Temesgen Dagne<sup>1</sup>    Yohannes Tamiru<sup>2</sup>    Bonsen Alemu<sup>3</sup>

### Abstract

This study focuses on assessing the practices and challenges of knowledge management in selected organizations of Addis Ababa City Administration and Oromia Regional State. The main objective of the study was to assess and describe the current KM practices and challenges of A.A City Administration and Oromia Regional State in light of KM cycle, associated concepts, and suggests viable, remedial, and appropriate solutions or measures that can enhance its overall KM systems. With a view to achieving this objective, a descriptive research survey design had been dominantly applied. Moreover, the researchers employed mixed research approach, where qualitative method was made to be embedded within the quantitative method. A total of 315 respondents drawn from five study units, namely PSHRDB, EB, TVTEA, ICTDA, and M/PO were involved and used as a typical data source of the study. The respondents were selected using purposive and random sampling techniques. The data were collected by means of different primary and secondary research instruments, such as questionnaires and group interviews. Data analysis was largely made using descriptive statistics by means of SPSS version 21.0 and Microsoft Excel spreadsheet programs, and the findings were further discussed or interpreted through theory analysis approaches. Of the responses gathered, data collected, and analyzed, it was found that the study organizations have little concern in respect of treating KM as part of their asset base, there is no as such clearly written and communicated administrative procedure so as to guide knowledge capturing in the organizations, the knowledge sharing habit of respondent employees is very poor, the main reasons for the low level of knowledge sharing in the study organizations were lack of support and reward that initiates knowledge sharing, lack of established culture on information exchange, and lack of interest of sharing knowledge among workers (knowledge hoarding behavior of workers). The overall status of knowledge management practices in the study organizations was found to be very low. The study recommended that top managers/leaders should set directions, drive and support knowledge management in every way they can. In addition, a KM framework policy document that would serve as a blue print for knowledge management in the organizations should be developed and implemented. On top of this, employees should be knowledge-oriented, and the organizations should install knowledge management as an inseparable part of their organizational culture.

**Key words:** Knowledge, Knowledge Management

<sup>1</sup>Institute of Public Management and Development Studies, Ethiopian Civil Service University, E-Mail: [teme2112@gmail.com](mailto:teme2112@gmail.com).

<sup>2</sup> Institute of Public Management and Development Studies, Ethiopian Civil Service University, E-Mail: [tamiruyohannes@yahoo.com](mailto:tamiruyohannes@yahoo.com)

<sup>3</sup> Institute of Public Management and Development Studies, Ethiopian Civil Service University, E-Mail: [seebon2@gmail.com](mailto:seebon2@gmail.com)

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## 1. Introduction

A light bulb in the socket is worth two in the pocket.

— Bill Wolf (1950 – 2001)

Knowledge is the nucleus of all organizations (profit or nonprofit). A successful management of knowledge is therefore needed to develop compatibility, efficiency and effectiveness of an organization in a present and especially future surrounding (which is more dynamic and turbulent). Although the phrase “knowledge management” entered popular usage in the late 1980s, knowledge management (KM) has been around for many decades. Librarians, philosophers, teachers, and writers have long been making use of many of the same techniques. However, it could also be argued that knowledge management has been around far longer than the actual term has been in use. The ability to manage knowledge is becoming increasingly more crucial in today’s knowledge economy. The creation and diffusion of knowledge have become ever more important factor in competitiveness. More and more, knowledge is being regarded as a valuable commodity that is embedded in products and in the tacit knowledge of highly mobile employees (Dalkir, 2011).

Knowledge management is an emerging methodology/discipline that harnesses an organization’s largely untapped resource. Organizations need to harness knowledge not only to stay competitive but also to become innovative. Since knowledge is a crucial resource, it should be managed judiciously. Knowledge management helps integrate, manage, store, retrieve, and disseminate organizations’ information and intellectual assets to improve organizational performance (Gupta, Iyer & Aronson, 1999).

The world is fast moving from a production-based economy to a knowledge-based one (Drucker, 1995). Drucker also emphasized that the most important contribution management needs to make in the 21<sup>st</sup> century is similar to an increase of the productivity of knowledge work and the knowledge worker. Development and transfer of knowledge, therefore, seems vital for public organizations as they must be able to respond to each new and alarmingly growing requests of the public by drawing on the knowledge accumulated from past engagements and present works.

Knowledge management (KM) has evolved as a significant process for managing and exploiting organizational knowledge. Knowledge is a key asset in equipping public sector organization employees to meet clients’ need and the sustainability of public sector organizations relies on the effective use of the organizations’ knowledge assets and resources (McNabb, 2007). However, the literature relating to KM in public sector organizations is limited. Nowadays, it is essential to recognize that knowledge management in public sector organizations is of interest as it has already proven to have positive effect on performance and innovations in these organizations, though the field of knowledge management is fairly new partially explained by the under development of its research base (Choi, Poon & Davis, 2008).

Whilst the positive effect of knowledge management towards organizational performance seems to be indisputable, there is a considerable contextual and practical gap when it comes to understanding of the application of knowledge management, especially in public sector organizations, as these organizations tend to act differently from other sectors.

In Ethiopia, knowledge management (KM) seems to happen often person to person. Few past efforts such as the Woreda Net initiative attempted by the Government of Ethiopia to facilitate knowledge sharing was not as successful, because IT based KM is still in its infancy stage (<http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan034887.pdf>). Apart from this, in Ethiopia, only little attention is given to knowledge creation and sharing mechanisms and

approaches. This in turn leads to the confinement of crucial knowledge somewhere else, that should have been shared and learned among all stakeholders involved in the country's public sector organizations.

These contextual and practical gaps would hinder the further advancement and reception of knowledge management in the public sector. Knowing that knowledge management and the involved activities have positive effects is an important point of departure. Nevertheless, for embracing these positive effects, it is necessary to assess and describe the practices of knowledge management along with the major challenges that affect its operation in the public sector context. The consequence from a practical perspective is that with knowing more about its practices and challenges, the application of public sector knowledge management would be supported and enhanced. Put it differently, closing the gap of understanding with regard to its functionality is a valuable endeavor. Therefore, assessing and describing the practices and challenges of knowledge management in the selected regions of Ethiopia has been the overarching purpose of the research. This study aimed at assessing and describing the current knowledge management practices and challenges of public sector organizations the case of Addis Ababa City Administration and Oromia region. More specifically, the study has aimed at a) assessing the practices of knowledge management in light of KM cycle in the study organizations; b) identifying the major challenges that are associated with the operation of Knowledge management in the study organizations; and c) drawing practical lessons that could be learned from the knowledge management experiences of the study organizations.

## **2. Literature Review**

### **2.1 Meaning of Knowledge and Knowledge Management**

As a starting point for exploring the realm of Knowledge Management, let us first take a close look at the definitions of knowledge. Most scholars agree that knowledge is a higher level of understanding than information (Davenport et al., 1998). Thus, information is often viewed as a kind of preliminary stage to knowledge where knowledge is often seen as information with specific properties (Lueg, 2001). When information is integrated with experience, intuition and judgment, information becomes knowledge.

For Davenport and Prusak (2000), "knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms."

From all efforts to define knowledge, it seems that the attempts to define knowledge has reflected the multifaceted nature of knowledge itself and it is almost impossible to have one single definition that covers all aspects of knowledge and at the same time receive unanimous consensus, especially when the embodiment of knowledge changes at different individual, organizational and social levels. This is the reason why many authors have pointed out the difficulty of succinctly defining the concept of knowledge, suggesting that it would seem appropriate to avoid imposing a strict definition but rather regarding knowledge as a "multi-layered, multifaceted concept" that "can impact different organizations in a very different ways". However, by borrowing from these various definitions put forward by different scholars we can conclude that knowledge is a fluent mix of structured experience, beliefs, relevant information and intuition of experts and, besides residing in human minds, knowledge can also exist in such forms as organization's systems, processes, products and culture.

Knowledge Management is about making the right knowledge available to the right people. It is about making sure that an organization can learn, and that it will be able to retrieve and use its knowledge assets in current applications as they are needed. In the words of Peter Drucker, it is "the coordination and exploitation of [organizational knowledge](#) resources, in order to create benefit and competitive advantage" (Drucker 1999).

To American Productivity and Quality Centre, (1998), knowledge management means the "strategies and processes of identifying, capturing, and leveraging knowledge to help the firm compete". There are two type of knowledge: Tacit and explicit.

### **Tacit vs. Explicit Knowledge**

*"We know more than we can tell" Polanyi (1966)*

A more widely accepted taxonomy on knowledge, first introduced by Polanyi in 1966 and popularized by Nonaka and Takeuchi, is the categorization of explicit and tacit knowledge. Polanyi (1966) put tacit knowledge as difficult to articulate and difficult to put into words, text, or drawings whereas explicit knowledge represents content that has been captured in some tangible form such as words, audio recordings, or images. Tacit knowledge tends to reside within the heads of knowers, whereas explicit knowledge is usually contained within tangible or concrete media. This form of knowledge is commonly referred to as being: complex, unrefined, difficult to articulate, implicit, automated, internalized, abstract, and idiosyncratic (Choo, 2002; Wiig, 1993). Tacit knowledge is personal and action oriented (Choo, 2002; Polanyi, 1966). It must be acquired and accumulated in the minds of employees (where it resides), through experience and over time (Wiig, 1993; Choo, 2002).

Explicit knowledge is commonly defined as knowledge that can be formally expressed using a system of symbols (Choo, 2002; Polanyi, 1966; Nonaka and Takeuchi, 1995; Wiig, 1993) expounds explicit knowledge as being 'describable and tangible'. Thus, explicit knowledge in organizations is typically found in documents and databases, while tacit knowledge is that which is in the heads of people. More than often, tacit knowledge is even based on the subjective insights, intuitions, and hunches and is deeply rooted in an individual's actions and experience and even ideals, values and emotions. According to Polanyi (1966), knowledge that can be expressed in words and numbers only represents the tip of the iceberg of the entire body of possible knowledge. Explicit knowledge is also sometimes called formal knowledge while tacit knowledge is called informal knowledge.

### **2.2 Knowledge Management Strategies**

A knowledge management strategy does not only set up the mission and objective for the company using it, but also how the form of their deliveries should look like (Storey and Barnett 2000). There are two main knowledge management-related strategies; they are in contrast to the other; codifying and personalization. In one end we have codifying, with a focus on computers, and on the other end we have personalization with a focus on the personnel. There are wild discussions whether they can be seen as strategies or not. But according to Alvesson et al. (2004:166) it is not false to define them as strategies since both of the approaches influences the fundamental infrastructure of the organization. Even though the strategies may affect the organizations way of work there are still little guidance in order to measure the results gained from it (Storey and Barnett 2000). But as the world is not completely black or white, nor is the aspect of knowledge management strategies. According to Alvesson et al. (2004:167) an organization can and should not use only one of the proposed strategies even though one should

have more focus on one strategy. Further they propose a mixture with a proportion of 80/20 to be able to use a knowledge management in the most successful manner. The different strategies are often said to fit different types of organization during certain stages of their maturity (Alvesson et al. 2004). Either strategy has a direct impact of the services or products offered to the clients. And will in many situations create a certain competitive advantage for the organization that chooses to have a knowledge management strategy (Storey and Barnett 2000)

### **2.2.1 Codification**

The first of the two strategies, codifying, is probably the most associated when thinking of knowledge management. It makes the tacit knowledge more explicit. Within this strategy the focus is on the computers and with help from the techniques. The information should be accessible for everyone within the organization. The basic idea is that the knowledge has been very carefully codified and stored within a database. The knowledge has been stored together with a relevant pattern and meta-data so that everyone in the organization should be able to understand and use it. Codifying can be synonymous with formalization, just because it is often used within the bureaucratic and mature organizations (Alvesson et al. 2004:166) normally associated with production-firms or where standardized approaches can be made (Storey and Barnett 2000). This strategy originates from the theories of reuse, where the employees are reusing knowledge more or less voluntarily. If used correctly, the organization can create a lever, by using and refine the already made code in order to create cheaper solution with a higher quality (Alvesson et al. 2004:166). Codifying knowledge within an organization can in many cases increase a company's advantage by having the knowledge packaged in services (Storey and Barnett 2000).

### **2.2.2. Personalization**

Personalization is the second of the main strategies there is within knowledge management through direct person-to-person interaction (Storey and Barnett 2000). As told by the name, personalization is about having certain knowledge bounded to a certain person and disseminated by a directly interaction between the knowledge-owner and the one being taught (Alvesson et al. 2004). Personalization is employed when relaying on tacit knowledge. A major setback with this strategy is that quality cannot be ensured since the knowledge is bound to a person and cannot be objectively judged (Storey and Barnett 2000). The strategy is tight coupled to the knowledge conversion-process of socialization and is depending on the ability of guiding the knowledge by mixing certain situations and certain individuals. When using personalization discussions, observing and imitating are the most common ways of sharing the knowledge (Alvesson et al. 2004:166). The key-point in an organization that chooses to use personalization as a knowledge management strategy is to recruit and maintain personnel with a high qualification. The strategy is by its nature reducing the strategic importance of the leaders since it is relaying on the independency of the employees (Alvesson et al., 2004:167).

## 2.3 The Knowledge Management Processes

### 2.3.1 Knowledge Acquisition and Creation

#### i. Knowledge Creation

Knowledge creation is the development of new knowledge and know-how innovations that did not have a previous existence within the company (Dalkir, 2011). Thus, it is the initial task performed in implementing KM in any organization. Knowledge creation always begins with the individual (Dalkir, 2011). This is because of the fact that knowledge usually exists in the mind of people in its tacit form.

#### ii. Knowledge Acquisition

Knowledge acquisition refers to the knowledge that a firm can try to obtain from external and internal sources (Alan, 2011). The external sources include suppliers, competitors, partners, alliances, customers and external experts. Whereas as internal sources include experts and other employees of the organization. Hence, eliciting the knowledge that exists at the internal and external sources is essential.

As per Nonaka and Takeuchi (1995), the organizational knowledge creation / conversion process is based on a simple framework that contains two dimensions. The first dimension shows that only individuals create knowledge while the other dimension relates to the interaction between tacit and explicit knowledge. These two dimensions constitute the base for defining the four knowledge creation / conversion processes – Socialization, Externalization, Combination and Internalization (SEIC).

**Socialization:** tacit knowledge is converted into tacit knowledge during discussions, communications, meetings, etc.

**Externalization:** tacit knowledge is converted into explicit knowledge, and embodied in documents, manuals, etc.

**Combination:** explicit knowledge is converted into another form of explicit knowledge.

**Internalization:** explicit knowledge is converted by individuals into tacit knowledge.

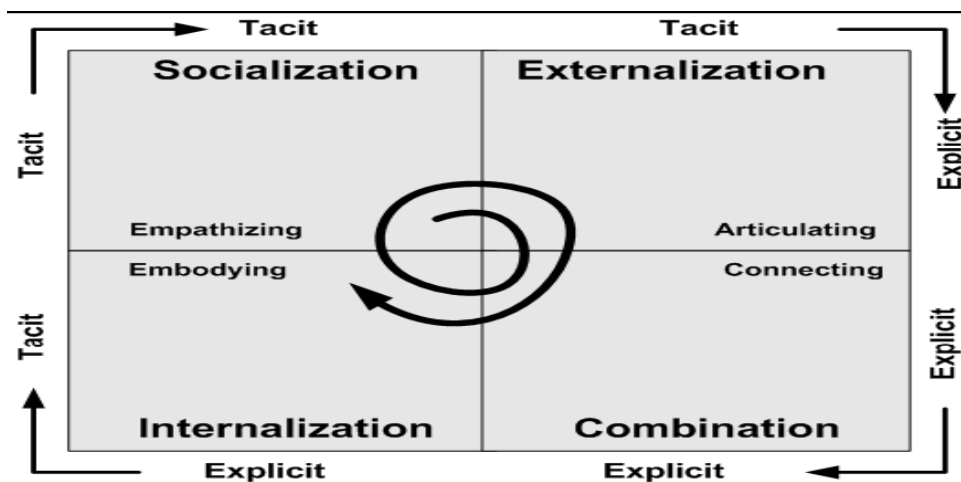


Figure 2.2.: SEIC Model

Source: Nonaka and Takeuchi (1995)

### **2.3.2 Knowledge Refinement**

The refinement phase, may it be in a physical (e.g., translation of information between various media) or logical form (e.g., labeling or indexing the information), is the primary source of value added and can also include a process of cleaning and standardizing the information (Meyer and Zack, 1999). This phase creates value not only through producing usable information, but also through allowing the information to be stored flexibly, in different formats and on different media.

### **2.3.3 Knowledge Storage/Memory**

As it has been put by Newman and Conrad (1999), after the acquiring the knowledge from different sources and experts, it should be codified or recorded for making easily accessible for whoever wants to use. Knowledge Storing includes all activities that preserve knowledge and allow it to remain in the system once introduced. This process will transform knowledge into a coded form to make knowledge structured, explicit, transferable and easy to understand as possible (Paween, 2006). Knowledge codification involves conversion of tacit knowledge into explicit knowledge in usable form. Knowledge codification is stored and retrieved via information retrieval systems such as Decision tree, Decision table, Boolean logic, fuzzy logic, Vector query and Extended Boolean logic.

### **2.3.4 Knowledge Sharing and Transfer**

According to Greenes et al (1999), the old paradigm, which is, knowledge is power is changed, and it needs to be explicitly understood that sharing knowledge is power. Performing activities in an organization requires a collaborative effort. If you try to work alone you are likely to fail, you need not only the input from other people but also their support. Therefore, being open with them, and sharing with them helps you achieve your objectives.

### **2.3.5 Knowledge Improvement**

The learning that takes place in the previous phase leads to further refinement of the knowledge assets. New value is either identified or created from them and additions or updates are made to keep them current in the organizational memory and applicable to the organizational context. The knowledge assets are repackaged to be stored or referenced (in the case of more tacit forms) so that their value may be effectively leveraged in the future. Bukowitz and Williams (1999) viewed this stage as a cleansing or sanitizing of sorts, which they refer to as divesting.

## **2.4 Factors Affecting Knowledge Management Practices**

The ability to determine whether KM project or initiative is succeeding or failing and whether it is a worthwhile endeavor for the organization is crucial for its long-term success. Performance indicators are therefore required to assess progress, devise improvements, and compare one's own situation to that of a different organization (Wu et al, 2010: 272). KM must be linked to economics, meaning that its value must be made apparent (Botha, Kourie, and Snyman, 2008). As put by many scholars, the most common factors affecting KM are leadership, organizational culture, organizational structure, and technological infrastructure.

## **2.5 Organizational Leadership/Management**

The implementation of a KM program involves the creation, acceptance, and adoption of processes, values, and systems that are either company-wide or in the very least span across functions, departments, and communities. The implementation and long term success of such far reaching changes require top and central management backing, both from the perspective of resource and political support but also to ensure day-to-day acceptance of such measures.

### **2.5.1 Organizational Culture**

Culture is one of the most critical elements in implementing KM. An ideal KM culture is characterized by trust, openness, teamwork, collaboration, risk taking, tolerance for mistakes, autonomy, common language, courage, and time for learning. Implications of culture in implementing KM are emphasized in the work of Albers & Barnowe (2003). As stated by Dalkir (2011), significant organizational changes may need to take place before effective knowledge sharing can begin to take place.

### **2.5.2 Organizational Structure**

The structure of the organization plays an important role in determining how power is distributed, how decisions are made, the degree of "freedom" in the company, and the barriers between different groups and individuals. Organizational structure therefore strongly influences the ability and willingness of people and communities to share and create knowledge, and it also determines how the KM program is actually managed (Lee and Choi, 2000). Organizational structure has been listed by numerous authors as an important element in the implementation of KM (Guptara, 1999; Lee and Choi, 2000; Davenport and Vopel, 2001; Singh and Kant, 2008; Wu et al, 2010, Tan, 2011; Yazdani, Yaghoubi, and Hajiabadi, 2011). Wu et al, (2010: 265) identify three dimensions of organizational structure: centralization, formalization, and complexity.

### **2.5.3 Technological Infrastructure**

Technology infrastructure needs to have the appropriate capabilities to support business processes with knowledge dissemination. The discussion of the Knowledge Management life cycle has assumed that an infrastructure of sorts provides the support necessary for each phase of the life cycle. This infrastructure consists of tracking, standards, and methods of insuring security and privacy of information. In most organizations, this infrastructure brings with it considerable overhead or both the company and the knowledge workers.

## **2.6 Knowledge Retention**

KM is recognized as making a contribution to knowledge retention and knowledge sharing. The issue of knowledge retention has been addressed by Liebowitz (2011), who indicates that the process of retaining knowledge should be integrated into the organization from the instant the employee is hired. According to Liebowitz, few organizations have formal strategies in place for knowledge retention. Once retired, key employees can still act as a valuable resource for the firm and can be brought back, for example as consultants (Liebowitz, 2009; Yazdani, Yaghoubi, and Hajiabadi, 2011). The bottom line is that if the organization does not plan and identify and protect its key knowledge resources, its KM initiatives risk failure.



### 3 Research Design and Methodology

#### 3.1 Research Approach

Creswell (2009) noted that the choice of a research approach is determined by an amalgamation of many factors, such as the research problem, objectives of the study, resource availability, and personal experiences of the researcher/s. Accordingly, the researchers engaged mixed research approach, where qualitative method was made to be embedded within the quantitative method. Put it another way, the latter approach was predominantly used in the research, while the former was used to get broader and deeper understanding of the subjects under review with an objective of enriching the findings of the study.

#### 3.2 Research Design

Since the purpose of this study was to survey and describe practices and challenges of knowledge management contingent upon individual employees as primary units of analysis, descriptive survey design was considered as the most preferred method.

#### 3.3 Target Population and Sample Size

The target populations of this study were public sector organizations that had been categorized into five groups, to make the research project manageable, these were PSHRDB, EB, TVTEA, ICTDA, and M/PO, i.e. the research had five major units of analysis. The target population of the study was found to be 1,480. In this research project, confidence interval-based sample size calculations are used, as they are more applicable to descriptive surveys. Besides, the researchers allowed the maximum discrepancy between the sample and population proportion to be 5% signifying that there might be a 5 percent chance that the estimation of the population characteristics by the sample statistics would be wrong. In view of these considerations, the total

sample size (n) was calculated using the following formula:  $n = \frac{N}{1 + N(e^2)}$  (Corbetta, 2003)

Given: N=1,480  
e= 0.05

Then,  $n = \frac{1,480}{1 + 1,480(0.05^2)} = 314.89 \approx 315$ . Thus, the appropriate sample size (n), for this study, was determined to be 315.

#### 3.4 Sampling Design

Both purposive and random sampling methods were used to draw the samples from the five study units. At the outset, five public sector organizations were purposely selected and made the focus of this study from Addis Ababa City Administration and Oromia Regional State Government, namely Public Service and Human Resource Development Bureau, Education bureau, Technical and Vocational Training and Education and Agency, Information Communication Technology Development Agency, and Mayor Office. The main reason for the deliberate inclusion of these organizations is largely attributed to the very fact that the selected organizations have a lot to do with KM activities better than other public sector organizations, and thus worthy of the study. The selection of individual respondents was made using simple random sampling for its simplicity and randomness.

### **3.5 Methods of Data Collection**

The data required for this study were collected both from primary and secondary sources. Primary sources of the study data were employees and officials working in the study organizations, while the secondary data sources consisted of reports, plans, programs, and different kinds of statistical and information records. The primary data of the study were procured using combinations of different data gathering tools, such as questionnaires composed of both closed and open-ended questions and semi-structured group interview, in order to balance the pros and cons of each of these primary data collection methods and validate the collected data. Whereas, the secondary data were gathered from documents, including official publications, regulations, archives, plans and reports of the study organizations in a way pertinent to the development of the study findings. To triangulate and supplement responses obtained from the questionnaire, plenty of qualitative data were gathered from key informants and government officials via group interviews that were conducted three times.

### **3.6 Methods of Data Analysis and Interpretation**

The collected data have been analyzed using both quantitative and qualitative analysis tools or approaches. The quantitative data were analyzed using Statistical Packages for the Social Sciences (SPSS) version 21.0 and Microsoft Excel spread sheet programs. As a result, descriptive statistics, such as averages, percentages, frequencies, and some other pertinent results have been displayed via tables, graphs, and charts. The qualitative approach has been used to analyze ideas and opinions of the study participants in a discussion and narrative form in a way it could augment and enrich the results of the quantitative analysis. The findings of the study were further discussed or interpreted via theory-based analysis approaches, as the analysis made in light of the theoretical framework of KM helped to provide reasonable, rich, and acceptable explanations, thereby enhancing the credibility of the research results and its interpretations.

## **4 Data Presentation, Analysis and Interpretation**

### **4.1 Knowledge Management Processes**

Knowledge management is the systematic process of acquiring and or creating, refining, organizing, sharing and or transferring, utilizing, and improving knowledge. Tacit knowledge is the knowledge we each carry in our heads about how to do things, who to call and the lessons learned through experience. Making it explicit is recording in some media that allows another person to use it-explicit knowledge (Dalkir, 2011).

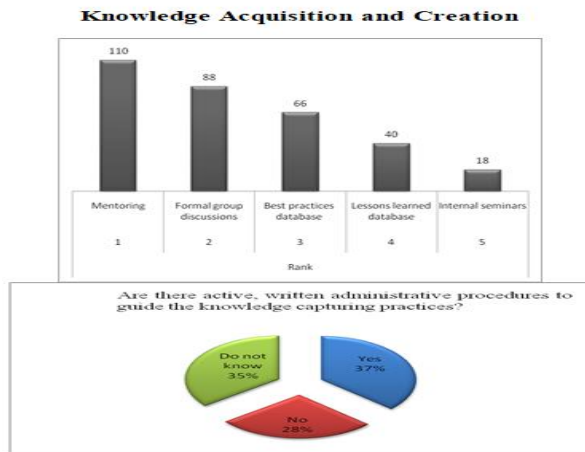


Figure 4.1: Administrative procedures to guide knowledge capturing

Source: Questionnaire survey, 2016

As can be seen from the above graph respondents were asked to rank the major knowledge acquisition and creation mechanisms in their organizations. Consequently, respondents arranged the mechanisms from highest to the lowest as follows: mentoring, formal group discussion, best practice database, lesson learned database, and internal seminars.

The pie chart above shows that the existence of written administrative procedures to guide the knowledge capturing practices. As can be seen from the pie chart, 37% replied yes, 35% replied, do not know, and the remaining 28% replied no. The key informants also indicated that there is no well-organized knowledge acquisition and creation process in the organization. Nevertheless, respondents indicated that the organizations have been using the following strategies to some extent for knowledge acquisition: coaching and mentoring, formal discussion and best practices database. This confirms that there is no as such clearly written and communicated administrative procedure so as to guide knowledge capturing in the organizations.

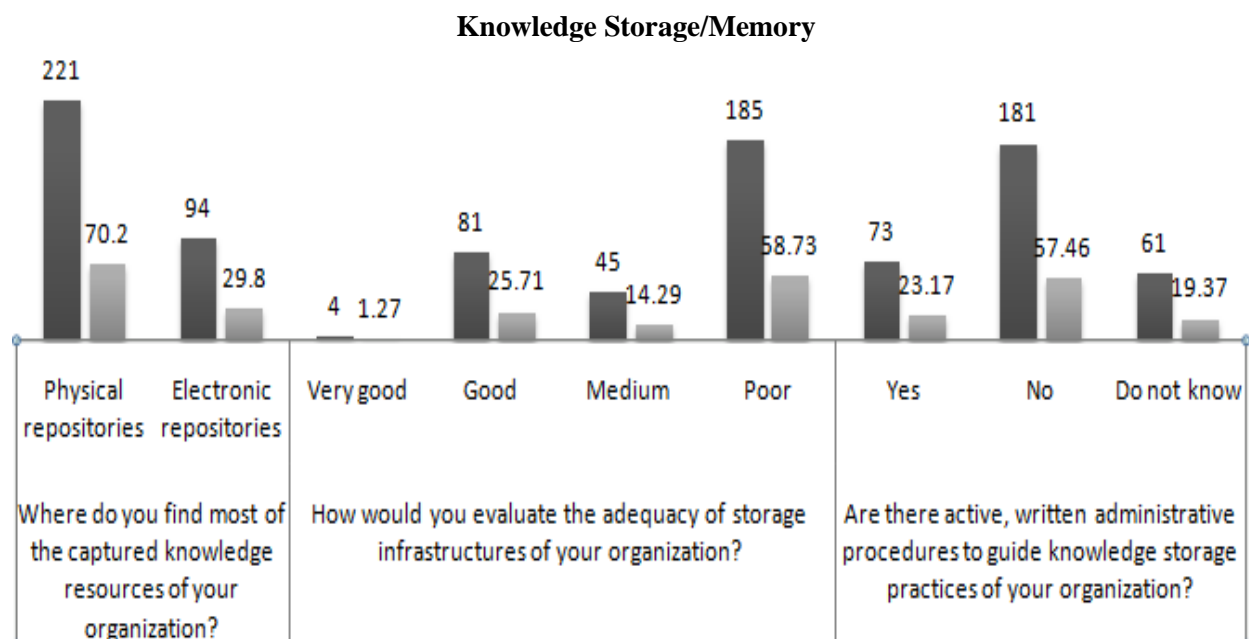


Figure 4.2: Knowledge Storage/Memory

Source: Survey Questionnaire, 2016

When questioning about the place where the study organizations locate knowledge, 221(70.2%) replied on physical repositories/shared copies, and the remaining 94(29.8%) replied on electronic repositories/databases. This is a very good indicator that the organization is still accumulating knowledge on traditional means from which retrieval is somehow time taking and tedious.

Concerning the adequacy of knowledge storage infrastructure, 4(1.27%) replied very good, 81(25.71%) good, 45(14.29%) medium, 185(58.73%) poor. From the data, it is apparent that the storage infrastructure is in impoverished state.

Regarding the existence of active, written administrative procedures to guide knowledge storage practice in the organizations, 73(23.17%), 181(57.46%) and 61(19.37%) replied yes, no and do not know respectively. This indicates that there is not as such written administrative procedures to administer knowledge management activities.

### Knowledge Retrieval

**Table 4.1: Knowledge Retrieval**

No	Items	Alternatives	Frequency	Percent
1	Which technique is most utilized in your organization to find and identify stored knowledge?	Indexes	65	20.6
		Codification systems	74	23.5
		Search software like intranet portals	57	18.1
		There is no organized system/technique	119	37.8
		<b>Total</b>	<b>315</b>	<b>100.0</b>
2	How much time does it take an employee to get pertinent knowledge in your organization?	A few seconds	5	1.59
		A few minutes	80	25.4
		A few hours	156	49.52
		A few days	74	23.49
		<b>Total</b>	<b>315</b>	<b>100</b>
3	Does your organization have a single point-of-contact by which individuals from within or outside can obtain published information or documents, such as reports and policy guidelines?	Yes	188	59.7
		No	93	29.5
		Do not know	34	10.8
	<b>Total</b>		<b>315</b>	<b>100</b>

Source: Survey Questionnaire, 2016

The above table shows that the rate of knowledge retrieval and the mechanisms to do so. As can be seen from the table above, respondents were questioned about the techniques mostly used to retrieve stored information for use. Accordingly, 65(20.6%) replied from indexes, 74(23.5%) codification system, 57(18.1%) search software like internet portals and 119(37.8%) stated there is no organized system/technique to get back stored information. The overall responses to this question showed that knowledge retrieval is tilted towards the traditional way of getting stored knowledge. If we now turn to the time it takes to get pertinent knowledge in the organization,

5(1.59%) replied a few seconds, 80(25.4%) a few minutes, 156(49.52%) a few hours, and the remaining 74(23.49%) a few days. A possible explanation for this might be that customers could not manage to get the required information on time. With respect to the existence of a single point-of-contact by which individuals from within or outside can obtain published information or documents, such as reports and policy guidelines, 188(59.7%) replied yes, 93(29.5%) replied no, and the remaining 34(10.8%) do not know whether there is such a point or not in the organization. From this data it is worthwhile to note that majority of the respondents stated the existence of a single point-of- contact (information desk).

### Knowledge Sharing and Transfer

**Table 4.2: Knowledge Sharing and Transfer**

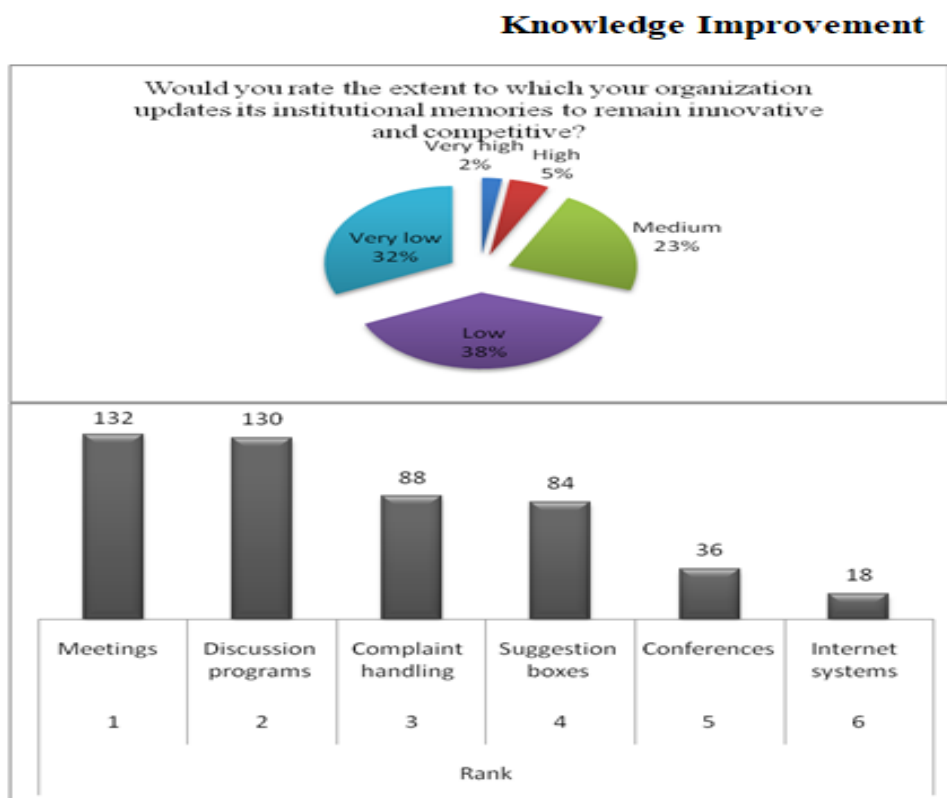
No.	Items	Alternatives	Frequency	Percent
1.	Encircle your interest of work style	In a team	33	10.48
		Individual	174	55.24
		Any kind	97	30.8
		No opinion	11	3.5
		<b>Total</b>	<b>315</b>	<b>100.0</b>
2.	Have you ever had any chance of participation in national and international knowledge/information sharing groups offered by your organization?	Yes	116	36.8
		No	199	63.2
		<b>Total</b>	<b>315</b>	<b>100</b>
3.	Would you measure the level meetings are used as a means of transferring knowledge in your organization?	Very high	12	3.8
		High	77	24.4
		Medium	60	19
		Low	139	44.1
		Very low	27	8.6
		<b>Total</b>	<b>315</b>	<b>100</b>
4.	Would you rate the level of interest of workers to share knowledge for their colleagues?	Very high	21	6.7
		High	60	19
		Medium	88	27.9
		Low	141	44.8
		Very low	5	1.6
		<b>Total</b>	<b>315</b>	<b>100</b>

Source: Survey Questionnaire, 2016

As revealed in the literature review, scholars agreed on the point that knowledge sharing is knowledge gaining. The above table shows the work preference of employees and the mechanisms through which knowledge is shared among the employees and the management. Regarding their interest of work style, 33(10.48%) replied in team, 174(55.24%) individual, 97(30.8%) any kind, and the remaining 11(3.5%) do not have opinion about it. This reflects that the work habit of majority of the employees is individual which is against the principle of knowledge sharing strategies. When examining whether the respondents had any chance of participation in national and international knowledge/information sharing groups offered by their organization, 116(36.8%) replied yes, the remaining majority of the respondents 199(63.2%) replied no. This clearly indicates that the knowledge sharing practice of the organization is weak. Concerning the use of meeting as a means of transferring knowledge in the organization,

12(3.8%) rated it very high, 77(24.4%) high, 60(19%) medium and 139(44.1%), 27(8.6%) rated low and very low respectively. This depicts that majority of the respondents rated the information sharing nature of meetings below average. Lastly, respondents were questioned about their level of interest to share knowledge with their colleagues, 21(6.7%) very high 60(19%) high, 88(27.9%) medium, and the remaining 146(46%) rated low and very low respectively. This shows that the information sharing habit is not as required.

Respondents who responded low and very low were questioned to state the main reason why that is the case and they mentioned the following reasons: no established culture on information exchange in the organization, there is no support and reward that initiates knowledge sharing, lack of interest of sharing information/knowledge among workers (knowledge hoarding behavior of workers). In addition, key informants indicated that there is weak knowledge sharing culture. Apart from this, there is no free information flow and innovative system/culture that can support wide ranging knowledge sharing.



**Mechanisms the organizations use to collect feedback from different stakeholders**

Figure 4.3: Knowledge improvement

Source: Survey Questionnaire, 2016

The pie chart above shows the knowledge improvement practice of organizations. In connection with it, 7% of them rated high and very high, 23% of them rated medium, about two-third of respondents rated very low and low. The result of this study shows that the organizations do not update their institutional memories to remain innovative and competitive.

Concerning the most applicable mechanisms the organizations use to collect feedback from different stakeholders so as to enhance their memory, respondents ranked them in the following order as it is clearly indicated in the above graph: meetings, discussion programs, complaint handling, suggestion boxes, conferences and internet systems.

## 4.5 Factors Affecting Practices of Knowledge Management

So many factors affect knowledge management practices in different organizations. The factors could be seen from different perspectives. For the purpose of this study, the factors are divided and examined in four categories, i.e. organizational leadership/management, organizational culture and structure, technological infrastructure and Knowledge retention issues. Here under are the consecutive discussions focusing on these factors.

### 4.5.1 Organizational Leadership/Management

**Table 4.3: Organizational Leadership/management**

No.	Item	Measurement	Frequency	Percent
1.	Which sources most triggered your organization to put the KM practices currently being operational in to effect?	Management of the organization	144	45.7
		Non-management workers	38	12.1
		Higher authorities other than the management of your organization	68	21.6
		Clients of the organization	65	20.7
		<b>Total</b>	<b>315</b>	<b>100.0</b>
2.	Does your organization have dedicated budgets or spending for implementation of KM practices?	Yes	123	39
		No	192	61
		<b>Total</b>	<b>315</b>	<b>100</b>
3.	Does your organization have a system of recognition for staff who shares their knowledge, such as rewards and internal publicity?	Yes	84	26.7
		No	161	51.1
		Do not know	70	22.2
		<b>Total</b>	<b>315</b>	<b>100</b>
4.	What do you think is the attitude of the Top Management with regard to KM in your organization?	Sees it as very important and provides full support	97	30.8
		Sees is as very important	126	40
		Sees it as a waste and hardly bothers	77	24.4
		Was very supportive in the beginning but now lost interest	15	4.8
		<b>Total</b>	<b>315</b>	<b>100</b>

Source: Survey Questionnaire, 2016

Regarding the sources that most triggered the study organizations to put the knowledge management practices currently being operational, 144(45.7%) replied that management of the organization, 38(12.1%) non-management workers, 68(21.6%) higher authorities other than the management of the organization, and the remaining 65(20.7%) clients of the organization. This clearly shows that the lion share of the initiative of KM practices has been carried by the management of the organization.

When questioning about the existence of dedicated budgets or spending for implementation of knowledge management practices in the organizations, the majority (61%) replied no and the remaining 39% replied yes. These result shows that there is no as such good practice of allocating budget for knowledge management activity. Concerning the availability of a system that recognizes staff who shares knowledge, such as rewards, and internal publicity, 84(26.7%) replied yes, 161(51.1%); no and the remaining 70(22.2%) do not know. About two-third of the respondents have not seen a system that gave recognition for those who shared their knowledge. Regarding the attitude of top management to knowledge management in the organization, 97(30.8%) replied that the management sees it as very important and provides support, 126(40%) sees it as very important but no support, 177(24.4%) sees it as a waste and hardly bothers, and the remaining 15(4.8%) were very supportive in the beginning but now lost interest. Key informants also discussed that the perception of top management towards knowledge management issues is poor. The interviewees, basically, attributes this problem to the fact that many of the top managements are appointees with low level of understanding about knowledge management and its benefits. Overall, the data depicts that there is no full understanding and support from the side of the management about the importance and application of knowledge management.

#### 4.5.2 Organizational culture and structure

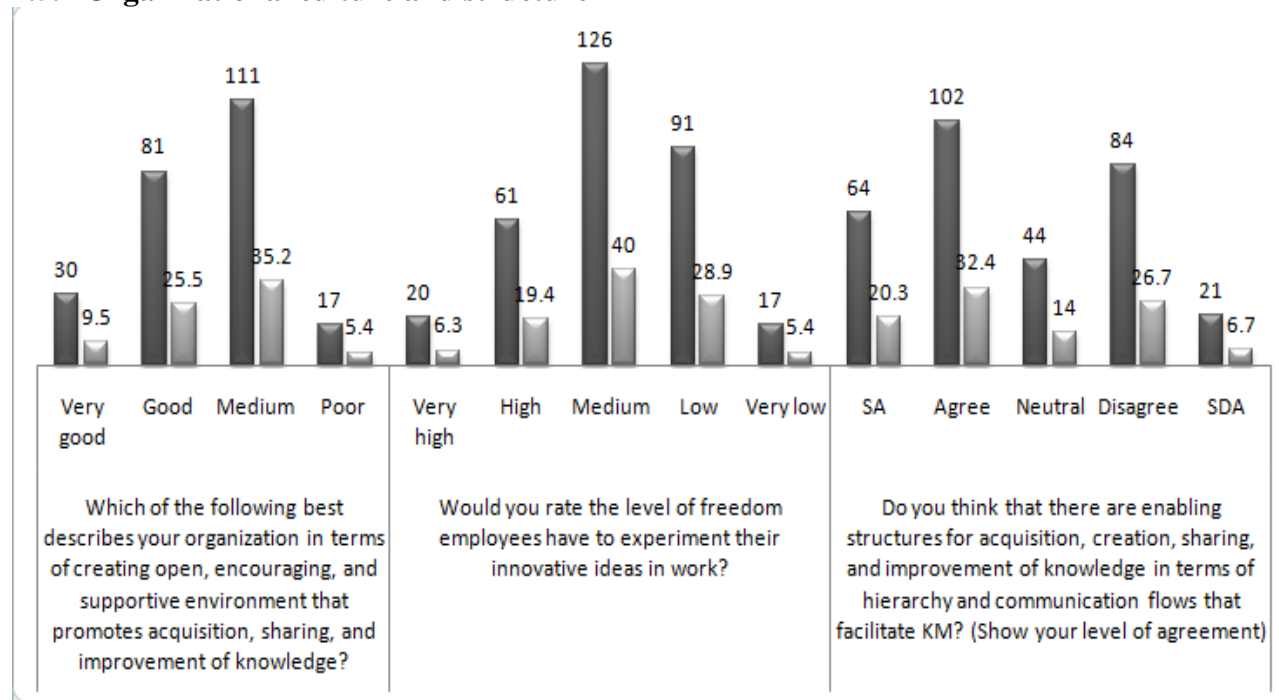


Figure 4.4: Organizational Culture and Structure

Source: Survey Questionnaire, 2016

The study respondents were asked about the efforts of their organizations to create open, encouraging, and supportive environment that promotes acquisition, sharing, and improvement of knowledge, 30(9.5%) replied very good, 81(25.5%) good, 111(35.5%) medium and the remaining 17(5.4%) poor. This shows that though it is in its beginning stage the organization has a good prospect in creating conducive environment for knowledge management practices.



Concerning the level of freedom employees have to experiment their innovative ideas in work, 20(6.3%) replied very high, 61(19.4%) high, 126(40%) replied medium, and the remaining 91(28.9%) and 17(5.4%) replied low and very low respectively. This shows that there exists freedom for employees to experiment and innovate ideas in work. Respondents were asked to rate their level of agreement regarding the presence of enabling organization structures for acquisition, creation, sharing, and improvement of knowledge in terms of hierarchy and communication flows that facilitate knowledge management. Accordingly, 64(20.3%) strongly agree, 102(32.4%) agree, 44(14%) neutral, 84(26.7%) disagree and the remaining 21(6.7%) strongly disagree. This shows that the structure of the organizations is relatively helpful to acquire, create, share and improve knowledge.

### 4.5.3 Technological Infrastructure

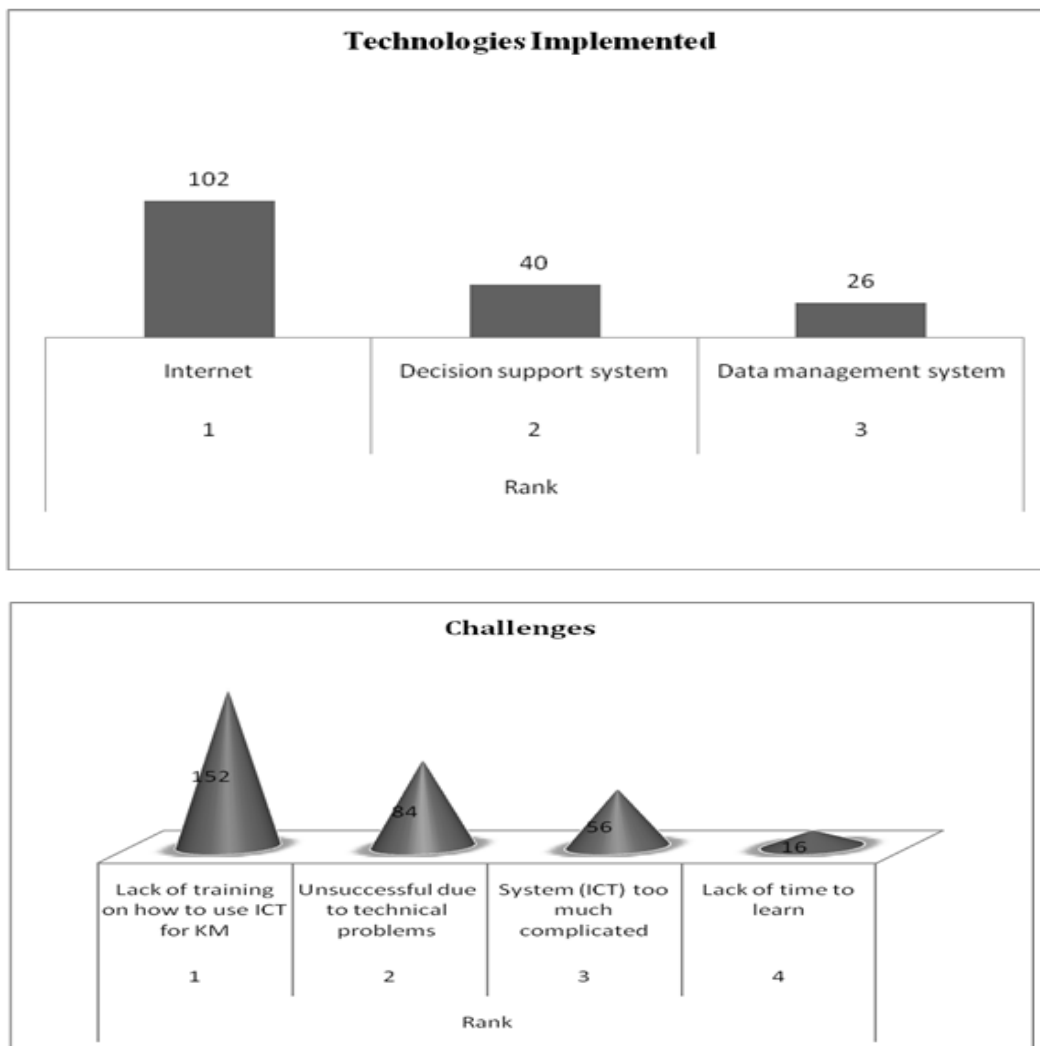


Figure 4.5: Technolgcial infrstructure

When asked to rank the technologies implemented in their organization, respondents ranked internet, decision support system and data management system as 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> respectively. In addition, respondents were requested to identify the major challenges that have been affecting them while using ICT for knowledge management practices.

Respondents mentioned many factors that have been affecting knowledge management practices from ICT implementation point of view. However, the dominant ones included were lack of training on how to use ICT, unsuccessful due to technical problems, ICT is too much complicated, and finally lack of time to learn.

#### 4.5.4 Retention Issues

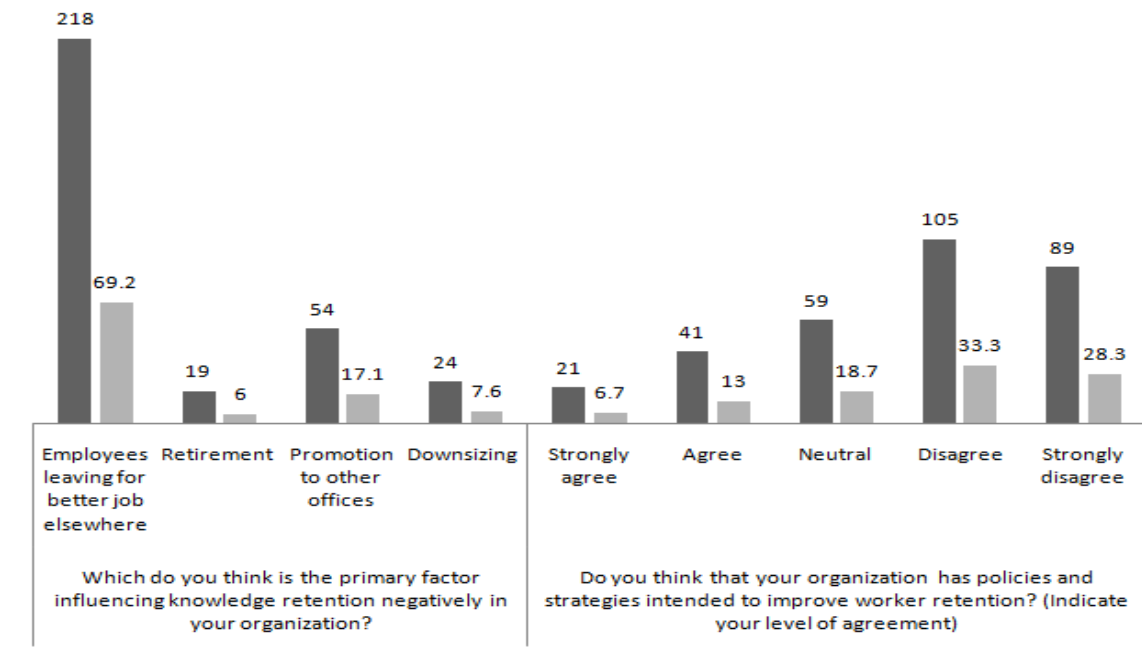


Figure 4.6: Retention of Knowledge and workers

Source: Survey Questionnaire, 2016

The above figure shows the issues related to knowledge retention practices in the study organizations. When requested to identify the primary factors influencing knowledge retention negatively in their organization, 218(69.2%) identified employees leaving for better job elsewhere, 19(6%) retirement, 54(17.1%) promotion to other offices, and 24(7.6%) downsizing. These data show that employee turnover for better job is the major factor that has been affecting knowledge retention in the study organizations. In addition, the respondents were questioned to check whether the organizations have policies and strategies intended to improve worker retention, 21(6.7%) strongly agree, 41(13%) agree, 59(18.7%) neutral, 105(33.3%) disagree and the remaining 89(28.3%) strongly disagree. The data depict that there is no clear policy and strategy which is intended to improve worker retention.

Besides, key informants confirmed the following as the major factors/challenges of knowledge management practices: lack of awareness, failure to consider knowledge as one of, even the most, organizational resource, knowledge hoarding behaviour of employees, failure to retain talented and knowledgeable workers, and lack of sufficient technical infrastructure.

## Hurdles, responsible body and practice of KM

### Ranking

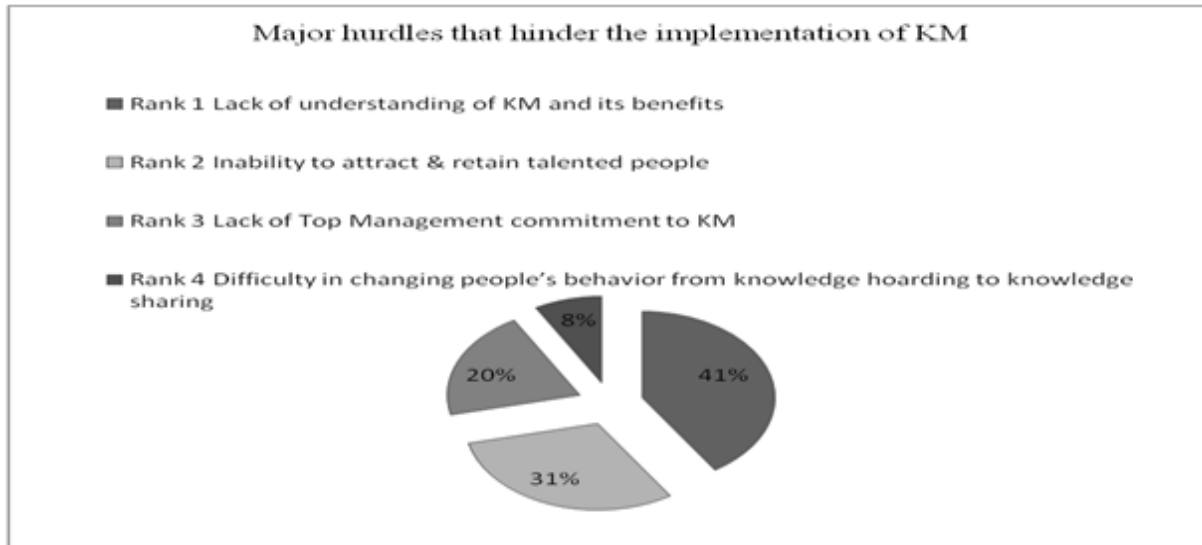


Figure 4.7: KM Hurdles

As can be seen from the above pie chart, respondents ranked the hurdles that hinder the implementation of knowledge management in the study organizations. The first and the most challenging one is lack of knowhow of knowledge managed and its benefits followed by inability to attract and retain talented people. The third hurdle was lack of top management commitment to knowledge management and the fourth was difficulty in changing people's behavior from knowledge hoarding to knowledge sharing.

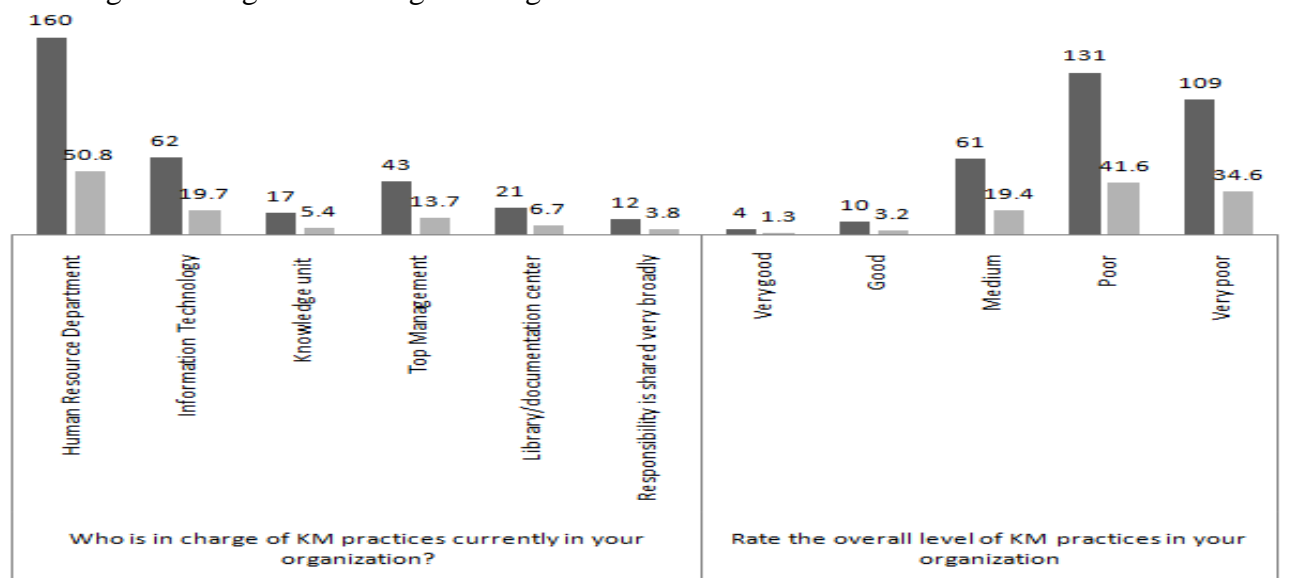


Figure 4.8: Responsible bodies and overall level of practices of KM

Source: Survey Questionnaire, 2016

When the participants were asked about who is in charge of knowledge management practices currently in their respective organizations, 160(50.8%) human resource department, 62(19.7%) information technology, 17(5.4%) knowledge unit, 43(13.7%) top management, 21(6.7%) library/documentation center and 12(3.8%) replied responsibility is shared very broadly. Taken together, these results show that human resource management department has taken the lion share of responsibility followed by information technology department.

Finally, the respondents were asked to rate the overall level of knowledge management practices in their organizations. Accordingly, 4(1.3) rated very good, 10(3.2%) good, 61(19.4%) medium, 131(41.6) poor and 109(34.6%) very poor. Overall, these results show that the knowledge management practice in these organizations is at very low level.

To summarize, the study respondents identified the following as the major challenges affecting the practices of KM:

- Low top management commitment towards knowledge management,
- Failure to organize research based knowledge,
- Lack of interest among employees to share knowledge,
- Lack of awareness creation training,
- Poor skill to use IT and other technological infrastructures as enabler for knowledge management,
- Lack of interest to learn from each other,
- Poor data management and exchange,
- Lack of knowledge sharing platform,
- Lack of transferring knowledge gained from trainings to the work place,
- Lack of attention towards knowledge management by the top management,
- Lack of team spirit,
- Failure to budget knowledge management,
- Failure to value knowledge,
- Poor HR management and retention strategy,

Following these the respondents suggested the following as mechanisms to mitigate the aforementioned challenges:

- Establishing well organized and articulated knowledge management policies and strategies
- Providing training (conceptual and technical) on knowledge management to top management and employees,
- Establishing a sound culture/system for knowledge acquisition and sharing,
- Due attention has to be given to knowledge management by the top management,
- There have to be knowledge management plans and programs that are supported by budget.
- Valuing and using knowledge of employees,
- Designing and implementing appropriate knowledge and people retention strategies,
- Deciding and celebrating knowledge day in order to initiate knowledge acquisition, creation, and sharing.

## 5. Conclusions

Based on the findings and analysis of the study, the following conclusions were drawn.

Knowledge management is an all-encompassing activity which is one of the vital assets of an organization in the 21<sup>st</sup> century. The findings of this research revealed that the knowledge management practices in the study organizations were at introduction and growth stage, which is

manifested in its traditional way of creating knowledge, storage, retrieval, sharing, and improvement. Based on this, it can be said that the study organizations cannot deliver the desired product and service in this competitive and demanding society.

The management did not give full attention and support to KM in the study organizations. The manifestations for this were low budget allocated for knowledge management, no recognition or incentive for those who took KM initiatives, poor retention programs, and doing business as usual.

Though clear policies, strategies, favourable culture and structure are the major enablers of knowledge management in organizations, the investigated organizations do not have place for such issues, i.e. the study organizations one way or the other do not pave the way to KM. In addition, the knowledge sharing habit of respondent employees is very poor.

Knowledge management has its own procedures to be followed. The findings of the study gave safe ground to conclude though they were aware of it, they failed to follow. They have been doing business as usual.

Mentoring, formal group discussions, best practices database, lessons learned database and internal seminars in order were the major mechanisms of knowledge creation and acquisition in the study organizations.

There is low level of knowledge sharing in the study organizations because of lack of support and reward that initiates knowledge sharing, lack of established culture on information exchange, and lack of interest of sharing knowledge among workers (knowledge hoarding behaviour of workers).

The study organizations do not update their institutional memories to remain innovative and competitive though they have a single point-of-contact (information desk). The major mechanisms the study organizations use to collect feedback from stakeholders so as to enhance their KM practices were meetings, discussion programs, complaint handling, suggestion boxes, conferences and internet systems.

Lack of training on how to use ICT, unsuccessful due to technical problems, ICT is too much complicated, and lack of time to learn (in order) are the main challenges that obstruct them while using ICT for knowledge management practices.

Lack of understanding of KM and its benefits, inability to attract and retain talented people, lack of top management commitment to KM and the difficulty of changing people's behaviour from knowledge hoarding to knowledge sharing (in order) are the major factors affecting effective KM implementation in the study organizations. In general, the overall status of knowledge management practices in the study organizations is very low.

## **6. Recommendations**

The various issues that surfaced during the study have promoted the researchers to put forward the following recommendations that they think could further strengthen the knowledge management practices of the study organizations in particular and the public sector organizations in general.

- Strong commitment and teamwork of the top management team will contribute significantly to numerous achievements of the public sector. Top managers/leaders should set direction, drive and support knowledge management in every way they can. Alignment of knowledge management with the public sector strategies will also help in aligning employees to the same direction toward strategic objectives. More importantly, the top management of the study organizations should be a role model for knowledge management through their personal involvement in knowledge management activities. They should also motivate and encourage employees' participation through various rewards and recognitions.

- Although the concept of knowledge management itself is a recent development, public sector organizations should adhere to it and the management should continually upgrade the ICT infrastructure, the capacity of employees, and the budget to be allocated among others.
- Implementing a knowledge management framework and strategy: in general terms it is suggested that a KM framework policy document that would serve as a blue print for knowledge management in the organization should be developed and implemented. Such a framework should outline the vision, aims and objectives for knowledge management at both organization and individual level.
- Employees should be knowledge-oriented when doing their jobs, or when looking for opportunity for improvement, such as asking themselves the knowledge required to perform well in their jobs, or to make improvements, seek and share knowledge.
- The organizations should install knowledge management as an inseparable part of the organization culture, of the work process, and of the information system. However, the researcher would like to sign off by emphasizing that knowledge management should be practiced carefully. It is important to begin with small steps that will lead to initial successes. Building on these successes, these steps will gradually get bigger and stronger, until the organizations are striding confidently alongside the leading knowledge management organizations.

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