IMPACT OF KNOWLEDGE MANAGEMENT SYSTEM IN AN ORGANIZATION: AN OVERVIEW

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Abstract
The paper gives an overview of Knowledge Management (KM) and its role in organizational activities, these activities can be facilitated through the use of knowledge management system, the paper highlighted the various types of KMS that are commonly used in organizations. It also focuses on the various aspects of Knowledge Management Systems and their impact in knowledge creation, storage and transfer in an organization. The practical example of KMS with respect to knowledge creation, storage and transfer that will make knowledge to be easily accessible and disseminated within and outside the organization is presented. The paper also discussed the use of KMS in organizations as well as pitfalls associated with the use of KMS.

Introduction

In today's global open market, organizations of different type use knowledge to stay competitive. The knowledge however is now considered to be a valuable asset within which an organization develop activities which eventually improve organizational performance. The strength of an organization is no longer on tangible assets that it possessed, rather on intangible assets and the ability to effectively utilize it to achieve their set goals and objectives. The process of creating, storing and sharing such intangible assets is the cardinal principle of knowledge management. Knowledge management (KM) is about building organizational intelligence by enabling people to improve the way they work in capturing, sharing, and using knowledge, (Leask et al, 2008). It involves using the ideas and experience of employees, customers and suppliers to improve the organization's performance. Building on what works well leads to better practice, strategy and policy.

Knowledge is power as they anonymously say, however it is the knowledge that is rightly created, stored and applied through the right systems that is actually power. This is because many organizations have knowledge but the problem lies in the right system to apply the possessed knowledge that will bring about an enhanced organizational performance. The effective and efficient management of knowledge is extremely crucial to enhancing organizational success (Evwierhurhoma et al. 2020). Hall and Andriani (2003) define knowledge as all factors that have the ability to influence human though, actions and behavior, it sometimes allow the prediction, explanation and control of physical phenomena. Knowledge management (KM) centered on managing organizational knowledge effectively by systematic creation, storage and sharing of knowledge. The utilizations of knowledge according to Mohammad, Musa and Hasan (2016) must be followed by proper planning and pursue knowledge management in an organizations, this is especially as it relate to the employee in order to ensure continues supply of various sector elements with qualified human resources. Knowledge Management mainly focuses on type of knowledge that resides in an organization or institution, it is primarily the knowledge that employees or researchers

learn from doing an organization's work, and the knowledge here is different from book knowledge or from lists of regulations or databases of customer information (Bhattacharya and Kumar, 2004).

Knowledge creation is an activity that results in conversion of knowledge. The process involves creation of tacit knowledge through informal sharing, moving to explicit, and enhancing explicit content by combining codified knowledge and using explicit knowledge to create new tacit knowledge through thinking and sharing. Knowledge storage is also an organizational activity that involves storing knowledge in various component or forms including written documentation, codified human knowledge and information in electronic database for organizational benefit. Knowledge transfer involved sharing of knowledge within the organization for utilization which eventually leads to the creation of new knowledge.

The main purpose of this article is to discuss about knowledge management systems and their impact in knowledge management activities in an organization.

Literature Review

Understanding Knowledge Management

Knowledge is an important and intangible asset that people, organization and society can possessed, different scholars and expert define knowledge from a different perspectives, thus, there is no Universal definition of Knowledge. However, knowledge can be defined according to Nonaka, (1994), as justified belief that increases the ability and capacity for effective action. There are two types of knowledge, Tacit and Explicit knowledge, the former refer to knowledge embedded in the mind of human being which is actively base in actions and experience its solely personal and the latter it's kind of knowledge that is generally articulated, its codified and documented information, for example manual, database, etc.

Knowledge management according to Wong, Tan, Lee and Wong (2015), is the process of managing knowledge through a systematic specified process. Knowledge management is strategies and processes that enable creation, production and efficient knowledge flow in order to meet the expectations of organization efficiency (Yang 2004). Nunes et al. (2017) view KM as the practices that enable an institution to optimize its academics that is teaching, research and administrative activities as well as to reinforce the utilization and sharing of data and information for decision-making purposes. Girard and Girard (2018) expressed that Knowledge Management is the availability of needful knowledge to, and its accessibility by, senior executives to make important corporate decisions.

The above definitions of knowledge management were all centered on the series of activities which includes; creation/generation, processing, storage, utilization and transfer of knowledge. Thus, Knowledge management can be defined as the processes of utilizing both past and current knowledge in a manner that is understandable to employee for the benefits of the organization.

Organizational Knowledge creation

Knowledge creation in organizations involves producing new knowledge or replacing existing one within the organization's knowledge in both tacit and explicit. The creation of knowledge in an organization relates to the intra-organizational process that facilitates the producing tacit and explicit knowledge, starting through individuals, group and integrating to

the organizational level. (Gold et al., 2001; Huber, 1991), therefore, the Organizational knowledge creation is the acquisition of knowledge within the organization through a learning process, and external knowledge acquisitions which can be originated in associative action with other organizations and business consulting.

There are four modes of knowledge creation in an organization identified by Nonaka, (1994) these are, socialization, internalization, externalization, and combination. The socialization mode refers to conversion of tacit knowledge to new tacit knowledge through social interactions and shared experience among organizational members, e.g., apprenticeship. Internalization refers to creation of new tacit knowledge from explicit knowledge, e.g., the learning and understanding that results from reading or discussion. Externalization refers to converting tacit knowledge to new explicit knowledge, e.g., articulation of best practices or lessons learned. The combination mode refers to the creation of new explicit knowledge by merging, categorizing, reclassifying, and synthesizing existing explicit knowledge, e.g., literature survey reports. (Alavi and Leidner, 2001).

Nonaka and Takeuchi, (1995) explained that, Organizations of all types are constantly generating knowledge in various forms and the perspective of the knowledge is predicated on the ability of organizations to capture and reuse such knowledge in order to unlock innovation potentials. For any organization to succeed, knowledge must be created constantly. March (1991) provided two situations where the creation and dissemination of organizational knowledge occur: firstly, is when individuals socialize to exchange and develop organizational knowledge; while secondly, is based on competition driven knowledge creation, where individuals and organizations compete for limited resources.

Organizational Knowledge Storage

The knowledge storage in an organization can be refers to the organizational memory formation process, in which knowledge formally stored in physical memory systems which eventually retained informally as values, beliefs and rules that are associated to culture and organizational structure (Alavi & Leidner, 2001; Argote et al., 2003). Organizational memory includes knowledge residing in various component forms, including written documentation, documented organizational procedures, codified human knowledge stored in expert systems, processes and tacit knowledge acquired by individuals and networks of individuals and structured information stored in electronic databases, (Tan et al. 1999). Lin (2007) explains that knowledge storage implies in a conversion process involving organization, structuring, storage and, finally, the combination of knowledge in order to facilitate future use by those concerned.

The organization stores knowledge in different ways. Walsh & Ungson (1991) identify five types of knowledge repositories in an organization. The first is the individuals who compose the organization, which are based on their experiences and direct observations. Culture is the second repository which can defines the way of thinking and feeling the problems by individuals. The third repository is the transformation process that occurs through the development, selection, and analysis of new working methods, which are subsequently socialized. Fourth is the structure store the set of rules, hierarchies, and attributes that define the functional model of the organization. Finally, ecology helps in the sharing process within the organization.

Organizational memory extends beyond the individual's memories which include other components such as organizational culture, structure (formal organizational roles), transformations (production processes and work procedures), information archives (both internal and external to the organization) and ecology (physical work setting (Walsh and

Ungson, 1991). Alavi & Leidner, (2001) provided that, advanced computer storage technology and sophisticated retrieval techniques, such as query languages, multimedia databases, and database management systems, can be effective system in enhancing organizational memory. These tools or systems increase the speed at which organizational memory can be accessed.

Organizational Knowledge Transfer

Knowledge transfer in the organization may be a process by which new information from different sources are shared which eventually drive the creation of new knowledge, understanding and information. Communication processes and the flows of information lead to knowledge transfer in organizations, consequently the organization should ensure the proper Communication channel and flow of knowledge in order to enable the learning process between individuals in an organization which positively resulting in improved performance. Gonzalez and Martins (2017), classified references dealing with the distribution of knowledge process in to three aspects: the exchange of experiences and knowledge between individuals through social contact in sharing tacit and explicit knowledge; sharing knowledge through communities of practice; and distribution of explicit knowledge through the use of Information Technology.

Information Technology can enhance knowledge transfer in an organization by extending the individual's reach beyond the formal communication lines. The search for knowledge sources is usually limited to immediate co-workers in regular and routine contact with the individuals. However, individuals are unlikely to encounter new knowledge through their close-knit work networks because individuals in the same clique tend to possess similar information (Robertson et al. 1996). In order to share knowledge there is need for a different kind of environment, and a unique combination of human and information system so that information gap can be reduce. There is also need for different set of tools and mind-set that appreciates the following: Knowledge/ Learning is by people i.e., it is a human activity; Thinking creates knowledge; and Knowledge is created as it gets used and is dynamic. It moves through Organization and Communities in many ways. (Bhattacharya and Kumar 2004)

Levine & Prietula (2012), identify four ways to transfer knowledge. The first, called self-learning, and it's the knowledge acquired by manual reports of the organization containing relevant information. The second form is the changes that occur due to contact between individuals within the organization in a social life perspective. The third mode is per formative relations that include the specific knowledge exchanges in a group, which eventually come from communities of practice that dominate specific knowledge and a common language, and finally, the distribution of knowledge is based on exchanges that an organization performs with other organization, which can be regarded as external knowledge that the organization acquires.

Knowledge Management System (KMS)

A System is the systematic collection of different interrelated parts that are combine to accomplish an overall objective, the system however has various inputs which eventually go through certain processes in which it produce desired outcome that accomplish the overall desired objective of the system. Onifade and Akinwade (2019) provided that a system usually consists of different but interrelated parts or components working together to achieve set objectives. They further explained that, there are many types of system and most systems however are characterized by features like organization, integration, interaction, interdependence and central objective. KMS are developed to support and enhance

knowledge-intensive processes, tasks or projects (Detlor 2002). In simpler terms, KMS are described as ICT platforms on which a number of integrated services are built. The KMS is built on the basis of an already existing ICT platform that provides basic functionality for e.g., data and document management, office management as well as communication. Examples are an Intranet solution or a Groupware platform, such as Lotus Notes.

Knowledge Management System (KMS) Facilitate Knowledge creation, storage, sharing, application and use through collaborative capabilities of both people and tools in order to provide knowledge available among employees. Knowledge management system (KMS) in an organization can be effective when there is an established system that support the practice and purpose of knowledge management especially the one that allow individuals in the organizations to access and share knowledge. Alavi and Leidner (2001) stated that KMS is a system primarily developed to support and enhance the creation, storage/retrieval, transfer, access and application of knowledge in an organization. KMS provide a seamless pipeline for the flow of explicit knowledge through a refinement process (Zack 1999). However, it should be noted that information technology (IT) as a whole does not reflect Knowledge Management System; it is only one among the important aspect of it which specifically relies on human skills for successful operations. Consequently, having IT infrastructures does not ensure success of Knowledge Management System on its own; there is need for integrating other component for a successful operation of the system (KMS).

The ever-increasing pace of innovation in the field of ICT support for organizations has provided numerous technologies ready to be applied in organizations to support these approaches. Examples for information and communication technologies that are related to knowledge management are:

- Intranet infrastructures,
- Document and content management systems
- Workflow management systems
- Artificial intelligence technologies
- Business intelligence tools
- Visualization tools
- Groupware and collaboration software
- E-learning systems,

Knowledge management systems (KMS) promise significantly enhanced functionality through an integrated combination of a substantial portion of the above mentioned information and communication tools and systems from the perspective of knowledge management. KMS should not be seen as a voluminous centralized data base. They can rather be imagined as large networked collections of contextualized data and documents linked to directories of people and skills and provide intelligence to analyze these documents, links, employees' interests and behavior as well as advanced functions for knowledge sharing and collaboration. Goals of using KMS are for example to generate, share and apply knowledge, to locate experts and networks, to actively participate in networks and communities, to create and exchange knowledge in these networks, to augment the employees' ability to learn and to understand relationships between knowledge, people and processes.

Knowledge Management System in any organization is to provide collaborative capabilities, using a variety of tools to facilitate sharing of knowledge both explicit and implicit among employees. It meant to change people's behavior in order to make their experience and expertise available to others, this is however, involves a process that helps

organizations identify, select, organize, and disseminate existing vital information and expertise in an unstructured manner which are part of the organizational memory. Technology is at the core of knowledge management system, yet they require the input of people to continually grow and leverage the organizations knowledge base.

In the area of KM systems, Hoong (2012) conducted a study and found the followings as the most common types of documents being created and shared in the knowledge management system:

a. Project Scope

b. Timetable Schedule

c. Project Team

However, he further stated that, most of the employees in some organizations are only using this system to store and retrieve documents rather than providing collaborative knowledge creation and sharing.

The followings are the types of knowledge management system that are commonly used today

1. Organizations knowledge management platforms
2. Research and insights libraries
3. Customer services knowledge bases
4. Libraries management systems
5. Online community forums.

The main objective of Knowledge Management System according to Onifade and Akinwade (2019) is to identify knowledge and organized it in a way that it can be disseminated in a formal manner, and thus enhancing its re-use. It assists in transferring the intellectual assets of the organization to value processes such as innovation and knowledge creation. It is also meant to improve an organization's ability to execute its core processes more efficiently by capturing intellectual assets for the overall benefits of the organization. In the same vein, Dhamdhere (2015) noted that a KMS provides tools and techniques for externalizing knowledge hidden in organizational experts' minds and preserving it for future reuse in order to facilitate problem-solving and decision-making processes. In most organizations, KMS influence the way by which information, knowledge are applied to problem-solving to support decision-making.

Use of KMS in an organization, practical example

The use of KMS to support an organization's professionals in their decision making through organizational knowledge creation is a double-edged sword. For organizations to fully exploit the benefit of KM the Use of Knowledge Management (KM) initiatives or Knowledge Management System (KMS) is required; these are the technologies that support KM in creating, storing, sharing, and disseminating knowledge. Alavi and Liedner (2001) note that some researchers raise questions as to whether KMS users may not develop their own knowledge while relying on the expertise of others, which may lead to a lack of expertise development in the next generation of organizational ''experts'' and ultimately a dwindling of human expertise within the firm. The KMS should also improve the ease by which the user can find a rule and/or example that applies to the current situation and facilitate interpretive problem solving (Alavi and Leidner 2001). Knowledge-management systems (KMS) focus on bringing together the explicit knowledge that exists in

organizations, the know what that can be easily documented and shared (Sambamurthy and Subramani 2005).

The use of Knowledge management system (KMS) in organizations facilitates organizational learning through capturing the important knowledge and making it accessible to the employee upon requirement for reuse. The impact of the use of KMS on explicit knowledge acquisition is critical given that explicit knowledge provides the foundation for and is the precursor of tacit knowledge development (Alavi and Leidner 2001). This is consistent with recent findings in the knowledge-based system (KBS) literature showing that novice users gravitate toward explicit knowledge support while experienced decision makers gravitate toward available tacit knowledge support (Arnold et al. 2006). Its however noted that, the method of KMS used varies across organizations, for instance, at the core of KMS typically used by accounting firms is top-down knowledge including manuals, directories, and newsletters; work processes knowledge consisting of working papers, proposals, client correspondence, and other engagement materials; and customer related knowledge including customer continuity and history information (O'Leary 1998). Studies also shows that to a certain degree, the KMS relieves the user of the need for encoding of explicit knowledge in long-term memory as applicable knowledge components can be readily accessed by the user's active working memory. Alavi and Leidner (2001) stressed that a KMS includes both explicit and tacit knowledge. However, the explicit knowledge is first provided in the system as it is the most easily definable, then the tacit knowledge which makes sense of the explicit knowledge is added by users to create a shared-knowledge environment. Despite the benefits and impacts attributed to the use of KMS, some writers argue that these impacts might be positive or negative. KMS may impact the knowledge acquisition of the user—although there are conflicting theoretical views on whether this is likely to be a positive or a negative impact. (McCall H. et al 2008). Given the widespread adoption of KMS in professional environments, research examining the impacts of KMS adoption on user performance and expertise development is imperative to fully understand the consequences of KMS use. A report shows that, KMS users were found to perform better than users of traditional reference materials in solving structured problems, (Arnold et al. 2006).

Pitfalls of the use of KMS in an organization

Every system has its successes and challenges, KMS is not an exception. However, many writers highlighted some of the pitfalls associated with the use of KMS. Badpa, Salim, Yahaya and Shakib (2018) stated that, KMS usage has different pitfalls and issues associated with different dimensions and factors which can be human, technology, organization and knowledge. Human factors According to Wint (2016) can be unwillingness to share tacit knowledge; Sociotechnical factors and fear of knowledge sharing. Ahmad (2016) stressed that, inadequate human involvement social norms, culture and lack of management and employee's commitment are human factors that hindered the successful utilization of KMS in an organization. Technological factors according to Oyefolahan, (2012) are merely developing sophisticated KMS without considering human and lack of KMS development in developing economy. While Desai and Rai focused on tendency to work individually, social norms, transition cost and inadequate technological use provide serious issues for the successful utilization of KMS in organizations. For the organizational factors Gardiner, (2014) opined that, unfavorable organizational culture and lack of rewarding system are serious issues which hindered the effective utilization of KMS in an organizations. While Akeel, (2013) focused solely on Lack of leadership commitment, and he further stressed that, relative strength of a person's compliance, involvement in, internalization, and emotional attachment to a particular group or organization by leaders can improve the utilization of KMS in that organization. Knowledge factor according to Moffat and Crichton, (2015) is lack

of integration different types of knowledge and sources. Some of the issues faced by organizations when implementing KMS according to Fontain and Lesser, (2002) include inadequate alignment between an organization's knowledge management efforts and strategic objectives, failure to embed knowledge management into employees' work activities, an overemphasis on formal learning, and limiting the organization's knowledge management efforts to internal boundaries. They further stressed that, senior management not being familiar with knowledge management dimensions, lack of a separate budget, inexperienced knowledge management team leader and team members, top management not supporting the KMS project, the culture of the organization, users' resistance to change, and conformities between the old and new KMS.

The problem is that rarely are both these sets of knowledge known by a single person. Moreover, technology is rarely designed by the people who use it. Therefore, firms are faced with the issue of fit between IT systems and organizational practices, as well as with acceptance within organizational culture (Gamble & Blackwell 2001). Akhavan et al (2005) identify several additional failure factors to KMS use including: lack of top management support, organizational culture, lack of a separate budget, and resistance to change.

Building upon all this, and incorporating previously discussed elements, failure factors of knowledge management systems are as follows:

- Inadequate support: managerial and technical, during both implementation and use.
- Expecting that the technology is a KM solution in itself.
- Failure to understand exactly what the firm needs (whether technologically or otherwise).
- Not understanding the specific function and limitation of each individual system.
- Lack of organizational acceptance, and assuming that if you build it, they will come – lack of appropriate organizational culture.
- Inadequate quality measures (e.g. lack of content management).
- Lack of organizational/departmental/etc. fit - does it make working in the organization easer? Is a system appropriate in one area of the firm but not another? Does it actually disrupt existing processes?
- Lack of understanding of knowledge dynamics and the inherent difficulty in transferring tacit knowledge with IT based systems (see segment on tacit knowledge under knowledge sharing).
- Lack of a separate budget.

The issue of standardization should also be considered. Will the systems be used in the same way and with the same rules throughout the organization? This should not be enforced if it may lead to a lack of acceptance and/or if it is not practically feasible.

Conclusion and recommendations

Knowledge Management is generally regarded as a processes involving various activities which involves Creation, application, Storage, disseminating and use of knowledge in an organization. To achieve this however, the organization should actively involves the collaboration of various activities through the effective application of KMS in order to enhance knowledge management activities. Despite the challenges associated with the use of KMS in an organization, the report shows that it can lead to a greater breadth and depth of knowledge creation, application, storage and dissemination in organization; these will result to a greater utilization of available knowledge which eventually improves decision making, organizational efficiency and productivity.

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