SAMSON ESUDU

ID: UD68920HSU78054

COURSE: DSK 035 DATABASE SYSTEMS AND KNOWLEDGE MANAGEMENT

TOPIC: Knowledge Management and Modelling

ATLANTIC INTERNATIONAL UNIVERSITY

August 2022

Table of Contents

1.   Introduction

Knowledge is vital in any aspect of life. Organizations regard it as a vital asset for a competitive advantage. Knowledge Management is understood as the gathering of strategies relating to sharing using different approaches and managing information of an organization. A multidisciplinary approach used to achieve organizational objectives by taking advantage of acquired knowledge. This is a critical aspect that is highly considered while working with an organization and whose roles entail gathering of information, documentation as well as professional experience and understanding at different levels. Theoretical models of information and knowledge management are designed to introduce a diverse group of professionals in different organizations. A theoretical foundation is a requirement as a basis of information management or knowledge management initiative that is to succeed.

Knowledge Management has established itself more credibly as both an academic and discipline of study and professional field of practice at the work that has been done on conceptual models of knowledge management.

The first widely adopted knowledge management model was "Socialization, Externalization, Combination and Internationalization model" (SECI) which originally was developed by Ikujiro Nonaka in 1990 and later refined by Hirotaka Takeuchi. This had described how tacit knowledge and explicit knowledge can be transformed in an organization. The knowledge spiral model has been extended and modified with alternative models that considered the complex and dynamic nature of knowledge and cultural and contextual influences in agencies. It is therefore clear that theoretical models have been discussed extensively in the knowledge management literature. Knowledge Management models help to put the disparate pieces of disintegrated parts together in a way that leads to a deeper understanding of both the pieces and the ensemble that makeup a model driven approach. The makes it a much better description of what is happening, but they help provide a better prescription of meeting organizational goals for a progressive productive operation.

2.   Importance of Knowledge Management

Knowledge is the core to every decision made within an organisation. Development of product and service improvement and engagement with customers/clients and entire company operation that could not function without without knowledge. Available knowledge in an organisation is distributed throughout and where knowledge management process come in. Its organised in an accessible and effective way which in turn allows one to;

- Maintain knowledge documented, structured and easy to locate or find.
- Standardise processes across an organisation
- make training materials accessible and well-organised.
- Mitigating risks especially during the time frame when employees dealing with particular knowledge areas are having vacation or sick leave.

The importance of knowledge management is a continuous act which requires commitment. Organisations can strive to improve on knowledge management through;

a.   Build a single source of truth

This is taking care of knowledge management when one creates a centralized location for information which remains available and continuously updated as employees come and go. This eliminates information gap that employees may not be able to bridge hence remains and prevents loss of information.

b.   Lead successful innovation

Prioritising knowledge management significantly increases chances of achieving successful innovations. An integral part of knowledge management that fosters innovation is an act of getting knowledge from external sources. Through all these insights, one stays ahead of change, spot on and embraces the trends early on with informed decisions and improved organisation performance.

c.   Encourage team collaboration.

Knowledge Management model/system and the process will help employees in overall get better transparency despite employees might be very job specific. Well-organised management shall

contribute to a firm alignment of values, outcome based expectations and collaboration tactics in different ways.

d.   Streamline onboarding of new employees

Knowledge Management accelerates the onboarding of new employees and makes it more effective and smooth. New employees get access to organisational processes and policies, improved aspects of products, services and customer segments where all information and knowledge new employees might need for an effective and productive start. Therefore, to make onboarding faster and smooth, there is a need for reliable information.

e.   Improves employees wellbeing

Psychologically, knowledge management supports in singling outsource of the truth documented and shared across for easy access and maintain expectations, team values and other documentation accessible and accepted by team members. This is vital especially during the 21st century of digital era.

Making knowledge management a priority and curating it at organisation level, employees are therefore helped to focus on important areas, eliminate excess informational load, reduce stress hence improve their wellbeing.

3.   Knowledge Management Strategies

Knowledge Management depends on the two foundational blocks which include; Culture and Continuous Improvement while supported by four pillars of People, Business processes, Content & technology.

a. **Culture:** Organizational culture that encourages lobbying and spreads knowledge is vital to the success of knowledge management in an organisation which is highly dependent on the behaviours of both individuals and the clinical development of an organization. In other words, technology alone can never result in effective implementation and use of acquired knowledge. The role of culture in all aspects of life has significant improvement and sustainability. Neglecting cultural involvement leaves no option than short-lived knowledge management practices.

b. **Continuous Improvement:** In any organized structured arrangement, the key goal of knowledge management is to enhance sustainable learning, improvement and to be creative in an organization /business building on the laid roadmap that guides on evolution. In periodic review of knowledge management, it will evolve to meet changing demands of business in response to internal and external influences. The flexibility approach will ensure the changing demands of an organization that will factor into progress towards the desired level of maturity of knowledge management model.

The main two foundation blocks that knowledge management depends on, are supported by four pillars that include;

a. **People**: People are the most vital element of any knowledge management effort. Organizations need to set expectations that everyone embraces the knowledge management behaviours of spreading knowledge and collaborating across functional areas and geographical boundaries in each setting. Engagement of people by using knowledge management is directly relates to company culture. Depending on the size of an organization, these roles maybe served by multiple people, shared or outsourced.

b. **Business Processes:** Elaborated steps for critical knowledge capture and use should be

integrated into clinical development business processes so that knowledge management approaches become a routine part of doing business. It enables oversight across the entire knowledge management program including governance, infrastructure, measurement and change management processes. Key knowledge management processes ensure routine functioning of each step of tools, user support and ongoing review of potential improvements. Given example of Governance processes that include sponsorship, critical decision making on the scope and direction, approval of required support such as resources or funding and ongoing alignment of the knowledge management program in meeting organization goals. At different stages of development and maturity.

c. **Content:** The scope of the content both in explicit and tact knowledge covered by knowledge management program will be driven by; what content is needed for a given business process or roles? Who creates the content and at what point in the business process lifecycle? Who has and who needs the content? Given example of search tools and or taxonomy categories for sustainable where validation of the content on initial capture remains current.

d. **Technology:** This is not the prime consideration in selecting the knowledge management focus neither strategy or approach, it enables storage, retrieval and access to the knowledge bank where people remain updated on the latest procedures and regulations through social media, internet/intranet and use technology as a bridge connection with each other. Given the example of Training new employees that might necessitate reviewing of policies and procedures during onboarding followed by real time access to online training modules and mentoring or the job training as required. This ensures the highest ability of success, the selected technology should be fit for purpose and existing business processes where technology can range from a simple database to inclusiveness, web-based or licensed software that simplifies the complex multiple sources of information through categorization and algorithms.

Some of the examples of companies that have applied successfully Knowledge Management model in their operations include:

- **Optimizely:** Here knowledge base offers an array features of an academy, community forum, certifications, developer documentation and more
- **SurveyMonkey:** Its allows users or subscribers to search by keyword or by topic.
- **Microsoft:** Knowledge base is compiled as a helpful video, training and even talks with product managers.
- **Canva:** This knowledge base is easy to navigate and search hence access.
- **Ever-note:** This is a knowledge base that includes not only helpful resources but clear-cut directions on how to contact the company.
- **Google Analytics:** Its knowledge base offers its own predictive search engine.

The vital part of knowledge management systems is that the best practices are available to interested parties, which creates happy and exciting productive success. Through success, people will always come back with a positive mindset. No mistake creates a true business value in knowledge management model.

4. **Establishing Knowledge Management Model.**

   a. Developing a knowledge management model is one of the key areas one must undertake as a first step. This involves identifying critical knowledge necessary to drive optimal outcomes tailored to organizational needs.

   b. Implementing knowledge management falls in as second step in knowledge management model where display mechanisms to enable and improve knowledge access and sharing.

   c. Sustaining knowledge management model is the last step in establishing knowledge management. At this stage assessment of performance against anticipated outcomes and adjust as necessary. Available opportunities can be assessed for continuous improvements to sustain the framework.

Making individual knowledge available to others is the foundation of the knowledge management model. The process of knowledge creation is a continuous act at all levels of an organization.

The four modes of knowledge conversion according to Nonaka and Takeuchi model of knowledge conversion are as follows;

   i. **Socialization (tacit to tacit)**: The process of sharing tacit knowledge in the form of imitation, practice and participation in communities. Usually it is pre-empted by the establishment of boundary where a given community interacts socially. For example, while growing up, the way of transferring knowledge to children was through riddles and parables where every evening, elders used to sit children around fire and telling stories. This has disappeared in most communities.

   ii. **Externalization (Tacit to Clarity)**: This process of articulating tacit knowledge into clarity concepts. This process involves a high level of internalized knowledge which becomes key to knowledge sharing and creation.

   iii. **Combination (Clarity to Clarity)**: This process involves integrating concepts into knowledge system.

   iv. **Internalization (Clarity to tacit)**: The process of integrating clarity knowledge into tacit

knowledge

It therefore concludes that, the learning process, above all things, enables one to capture knowledge and make sense out of it before, during and after.

5.   Methodology.

This defines and outlines the processes of the proposed lifecycle framework that will have transfer, storage, application, creation and acquisition of knowledge from diverse sources.

a.   Knowledge Transfer

This is the conveyance of knowledge from one person or place, ownership to another according to Corday Hayes, 2000 p. 412. It's therefore a process in which knowledge is transferred or associating it with reproduction of learning from others in different societies of interest. This is a process well known to be efficient and effective to accommodate everyone. It is a process which knowledge is communicated to other people across and within departments and organizations through face-to-face interactions or the use of modern technology.

a.   Knowledge Storage.

This is known as the identification and coding of knowledge which exists and know how to organise it into organizational memory. Through storage, it helps organizations as a means by which knowledge from the past to influence present organization activities which knowledge is stored for operational and reporting reasons. It is captured and stored in the organization databases. Knowledge storage is important because knowledge can easily be lost once not stored properly especially if it is still tacit held by knower. After leaving organization, all information gone. Giving example of my former employer where one employee was keeping company documents using her external drive. When she resigned, all the data was lost of more than 1-year compilation. This happened as a result of employer not buying an employee memory drive. Organizations can store knowledge both manually and electronically. Manfully can be on paper folders while electronic storage involves storing in organization database.

a. Knowledge application

This refers to the use of captured and stored knowledge from organization databases. For example, traditional Africa that, elders are the encyclopedia of cultural history. Knowledge must be applied in organizational routines and processes. The knowledge-based view highlights the source of advantage that lies in the application of knowledge. Many writers highlight that the available knowledge must be applied to the processes of the organization. It should be something innovative, productive, consultative, proper decision-making and many other tasks that require knowledge.

a. Knowledge Establishment

Nonaka and Takeuchi (1995) stated that knowledge is created through the conversion of tacit and explicit knowledge in the four areas of; socialization, externalization, combination and internalization. Knowledge creation involves developing new knowledge from existing content. Sharing knowledge, concepts with justification while building a prototype and cross levelling knowledge. An example of knowledge establishment is developing a software product as a process. It therefore implies that knowledge is created through education, interaction, practice and collaboration as the different types are shared and converted.

a. Knowledge Acquisition

Knowledge Acquisition means accepting knowledge from the external environment and turning it into a commodity that can be used within the organization. The process includes; locating, accessing, capturing and collecting knowledge from different sources such as from customers, competitors, suppliers and libraries and older generation sources. Knowledge acquisition as a stage at which knowledge is contextualized through different interpretations in order to be understood. Knowledge can be acquired from repositories, learning from others and learning from experience. Therefore, knowledge acquisition is considered the process of accepting knowledge from external sources to impact in an organisation.

6.   Building effective Knowledge Management Model

Organizations that focus on knowledge management model can free up the time of support staff while providing a similar or even greater level of satisfaction. The following are stages for building an effective knowledge management model;
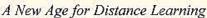
a. **Collection of data;**

Data collection is the first step in developing a knowledge bank that accounts for the reason one has to be knowledgeable of what knowledge to document. One can easily ask questions such as what the common problems, issues and questions people have and how answers can be documented. Some of the few methods to determine these factors.

- Sift through support ticket system. This form common questions people always ask which highlights issues. Such questions can be answered first before proceeding to next steps.

- Discuss with the team about what issues come up frequently. Gather a support team together and have them contribute ideas for knowledge management model articles to proactively answer questions that they get all the time. Sometimes, these frequent questions frustrate workforce hence need to be included in the database.

- Using Google Analytics for discovering what people commonly search from websites. If one has enabled the site search feature in google analytics where one can easily go to behaviour site search, search terms to see common terms of people are searching for. One can easily compare time periods and sort by absolute change to view rising trends over time.

- Use of social listening and social tools to discover what customers are saying about company, products, service and many others. In building a knowledge management model, all view points become relevant where full participatory approach is applied, and an insight will shed some insight on problems or issues dealt with.

a. **Organize the Information.**

The following steps involve how knowledge management model organized the information. How

some of the best practices for use when designing and organizing knowledge management model such as related links, videos and training. Having a sidebar that links out to a supplementary resource like chat, community and courses. By including a feedback mechanism to measure the response to articles and other areas of interest. Variety of media such as videos, images and extra can be of great importance as people learn differently and adopt situations differently. Therefore, the structure of knowledge management model should vary but it should reflect expectations to create an attractive site with multiple features such as frequently asked questions (FAQ).

a. **Analyse and optimize system performance.**

Managing information is a different story of its own where someone has to tell the story to the rightful audience. One needs to attract metrics that are not intuitive as the process isn't the same as measuring a landing page where one can just use metrics like leads generated or conversion. Knowledge article isn't something straight forward to answer. There must be a prior discussion in an organization about goals and objectives and how they can be tracked. Therefore, brief feedback that people can be asked online such as Was the page successful or was it easy to use the page? These are open-ended questions which require yes or no, hence makes it simple for people visiting the site.

a. **Continually update the system.**

Knowledge Management does not only require one to keep a close eye on metrics but also in support trends and issues that pop up as many changes happen daily such that systems are upgraded every second such as applications on internet. Creating the system doesn't mean one is finished or summarized but must continue to keep a close eye on what questions people are curious about and always drop in questions either on bottlenecks within the website or any other platform. Feedback form where people can ask questions they may not find on the website would add value and positive results.

Continued self-serve service and supportive measures that one will be rewarded with excited customer base, increased revenues and decreased support costs. It is well known to be a challenging endeavour, but it offers a huge return on investment.

7.   Conclusion

The Knowledge Management model for developing, implementing and sustaining knowledge is not a new concept. Approaches that enhance sharing and searching of knowledge in an organizational and geographic boundaries facilitate consistent quality of execution, enhanced efficiency and continual improvement of processes. A knowledge seeking and sharing culture coupled with supporting processes and people are critical for the successful integration of knowledge management approaches into routine work. Analysis of loopholes or barriers in the flow of critical knowledge spells out those areas where knowledge management improvements would have the most impact. Training, ongoing communication and change management are important aspects of successful implementation.

Knowledge Management helps us put the disparate pieces of a puzzle together in a way that leads to a deeper understanding of both the pieces and the ensemble that they makeup. A model driven knowledge management approach enables not only a better description of what is happening, but they help provide a better prescription for meeting organization goals.

8. **Reference**

- Alavi, M. and Leidner, D. (2001), Knowledge Management and Systems: Conceptual foundations and research issues" MIS Quarterly, Vol. 25 No. 1, pp 107-136.

- Argote, L. and Ingram, P. (200). Knowledge transfer: Human Decision Processes, Vol. 82 No. 1, pp 150-169.

- Argyris C and Schon, D(1978), Organizational learning: A theory of action perspective, Addson-Wesley Publishing Company.

- The Nonaka and Takeuchi Knowledge Spiral Model (1995)

- The Choo Sense-Making Knowledge Management Model (1998)