COURSE GUIDE

LIS 406
KNOWLEDGE MANAGEMENT

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INTRODUCTION

Welcome to **LIS 406: Knowledge Management**. A two-unit credit course (2-unit), being a prerequisite made compulsory for all the undergraduate students in the Department of Library and Information Science. The course is planned and prepared to assist undergraduate students to learn, understand, internalize, apply and use the right type of knowledge (tacit and explicit knowledge) for the day-day operations in organizations. The application of knowledge management principles enables students to advance in their studies and every other academic activity they wish to embark on. The understanding surrounding how organization operates today depends largely on the application of tacit and explicit knowledge.

The concept of 'knowledge management' has attracted several interpretations and meanings with different scholars 'and research backgrounds. This has become a central focal point applied in most organizations today. Libraries are fundamental in the focus of the reason this module is developed because, graduates who are trained in library and information science and related course/module are expected to have adequate knowledge of the course discussed.

The reason that necessitates knowledge management in libraries and other related institutions/organization is increasing knowledge creation and sharing, where practical know-how of the use of interacting tools of networks is important. Knowledge management is significant in the transformation of employees' workforce, where they apply their tacit type of knowledge in accomplishment of their day-to-day tasks. Digital technologies have also infiltrated into how knowledge is managed in the organization. This result to easy access to multifarious information resources in libraries. Some of the digital technologies that have been used in knowledge management in the organization comprise of computers, laptops, digital tablets/ telephones, learning management systems (Olofsson, Fransson & Lindberg, 2020). These necessitate bringing transformation to the organization.

COURSE AIM

The aim of this course is to ensure that students registered for this course LIS 406 understand the meaning of KM and when, where and how to apply it in their day to day activities of academic pursuit and anyplace of work learning. To ensure this is actualized, the student's effort is required in planning and preparing for attaining the prerequisite for the knowledge and skills of employability hence the development of this module as part of the LIS curriculum and/ or program. The course is developed into five

modules and fifteen units such that it would enhance student understanding of knowledge management in any workplace.

COURSE OBJECTIVES

By the end of this course, students registered for this module should be able to:

i. Understand what knowledge management entails
ii. Identify the different types of knowledge
iii. Discuss the typologies of knowledge management
iv. Discover know knowledge sharing could be harnessed using different social networking sites approaches
v. Ascertain the effectiveness and efficiency of knowledge sharing using the social networking sites in library and information centres and related organisations
vi. Develop the skills and knowledge required in knowledge management, and knowledge sharing through the use of networking tools among libraries and information centres
vii. Understand knowledge management and knowledge management systems and strategies from organizational perspectives and its implication in the 21st century libraries and information centres and associated organisations
viii. Determine the factors associated with formulation and implementation of knowledge management in libraries and information centres
ix. Articulate values of technical approach that could strengthen knowledge management, knowledge sharing and knowledge management systems and strategies in libraries and information centres
x. Develop the principles/framework and practices of practical application of knowledge management, knowledge sharing and knowledge management systems and strategies in libraries and information centres and associated institutions.

WORKING THROUGH THIS COURSE

In order for students to have a comprehensive understanding of this course, they should partake in both the theoretical and practical parts of the course. In light of this, students should read the entire units very well, listen to all the video links that are provided. With this in mind, students should know what each section requires, thereby undertaking critical reading that would make them understand all recommended and required text, recommended books and other related materials that would increase students' knowledge and skills in the course unit provided, thus preparing the students for their assignment and examination when it comes.

The course is structured such that each unit is classified into the following sub-headings: introduction, intended learning outcomes, main content, summary, conclusion, references and further readings. The introduction part of this module indicates a summary of learning objectives and expectation meant to be covered in the unit, before it is further broadened or broken down into segment of analysis, detailing highlights enclosed in the unit.

It is expected that at this point students should read and acquaint themselves with the learning outcomes which gives a summary of what students are expected to complete at each unit. This will help the students to evaluate their learning processes at the end of each unit, to establish whether they have accomplished the intended objectives of the unit. To complete the intended learning outcomes, the content of each segment is presented in modules and units with LIS 406: Knowledge Management.

The videos and links provided in this course unit is on the provision that it would support the student on the course LIS 406: Knowledge Management, such that, you will not have to struggle with areas of the course unit that are not clear to you. Kindly copy and paste the link address as indicated in each course unit into a browser and follow the directive as shown on Youtube. There are portions of the video where you might have to click skip in order to avoid adverts, to get to the main content, please listen attentively as the video plays. There is segment where student will have to read offline, make notes and jot down points that could re-direct you back to what you have already studied and extent covered in the entire course unit. If possible, it would be better you download the videos to view or watch it offline, as that will save you data.

You can also download and print the entire manuscripts for the LIS 406 course study for easy readability whenever you want to study. This will give you relaxed mind where you will not have to open your computer all the time. Otherwise, if you are good at reading digitally, save it in your computer or external drive-in order not to download always. What is discussed in each unit outlines essential recap of the points that needs to be considered, thus leading as guide to other parts of units in the entire journey of the study. The conclusion takes the student to the pinnacle of the study and salient points or lessons that need to be taken into consideration in the unit being discussed.

In each unit, two key forms of assessments are required the formative and the summative. The formative assessments indicate how the student will evaluate their learning processes. These are presented in the form of text questions, discussion forums and self-assessment exercises. The summative assessments are based on the academic performance of the student as required by the National Open University of Nigeria (NOUN),

whether the student has met the minimum requirements stipulated on the course being studied. This are summarized in Computer-Based Test (CBT), serving as continuous assessment and final degree examinations for the course being studied. A minimum of three computer-based tests are given to the student, with one final examination at the end of each semester. It is mandatory for all students registered for this course to take and pass all computer base tests and the final examination before they could graduate from the National Open University of Nigeria (NOUN).

COURSE MATERIALS

The course materials for this module LIS 406 ‘‘Knowledge Management’’ is presented below.

INTRODUCTION

The course materials of knowledge management module, LIS 406 comprise of the definition, scope, and topology of knowledge management (KM) within an organization or business context; techniques for capturing/acquiring, organizing, distributing, and sharing knowledge; formulation of knowledge management strategies, requirements, and issues in designing enterprise knowledge architecture and implementing knowledge management projects; ethical issues and problems inherent in knowledge management; measurement of the impact of KM programs and practical work in knowledge management.

STUDY UNITS

There are 15 units in this course divided into five modules. The modules and units are presented as follows:

Module 1 Knowledge Management in Libraries

Unit 1 Overview/Definition, Objectives, Scope, and Models of Knowledge Management
Unit 2 Topology, Processes, Techniques, Tools, and Components of Knowledge Management
Unit 3 Practices and Application (organization or business context) of Knowledge Management

Module 2 Knowledge Sharing in Libraries

Unit 1 Definition, Objectives, and Methods of Knowledge Sharing
Unit 2 Techniques (capturing/acquiring, organizing, distributing), and Tools of Knowledge Sharing
Unit 3 Implication of Knowledge Sharing in Libraries

Module 3 Knowledge Management Systems and Strategies

Unit 1 Concept and objectives of Knowledge Management Systems and Strategies
Unit 2 Types and functions of Knowledge Management Systems and Strategies in libraries
Unit 3 Formulation and Implementation of Knowledge Management Systems and Strategies in Libraries

Module 4 Knowledge Architecture, Ethical Issues, And Problems In Knowledge Management

Unit 1 Definition, and Purpose of Knowledge Architecture
Unit 2 Design/Structure, and Segments of Knowledge Architecture
Unit 3 Requirements, Enterprise, Issues in Designing Enterprises in Knowledge Architecture and implications of ethical issues in Knowledge Management

Module 5 Measurement of the Impact of Knowledge Management Programmes

Unit 1 Overview of knowledge measurement and purpose of measurement of the impact of Knowledge Management
Unit 2 Implementing Knowledge Management Projects
Unit 3 Practical work in knowledge management

PRESENTATION SCHEDULE

In order to have a clear understanding of what the course entails, a presentation schedule is provided. The presentation schedule directs the student on essential dates to take note of, especially in the completion of computer-based tests, assignments, participation forums or discussions, if any and every other material and video that needs to be examined. Remember that the submission of all your assignments must be timely and appropriate as stated in the course. Please, there is a need to guide against delay or postponement and plagiarism while attending to your classwork/assignment given to you to do. Please bear in mind that, plagiarism is a criminal offence in academics, as such, it should be avoided at all cost because it is amount to weighty or serious punishment.

Note: Each student will earn a 10% score if he/she meets a minimum of 75% participation in the course study, forum discussions, and portfolios, or else the student will lose the 10% in their total score. The student is expected to upload their portfolio through Google Docs. The expectation

of students in their portfolio consists of the notes or jotting made during their time of study of each of the course unit and modules made available to them. This comprises all activities and time spent from the beginning to the end of the course in the entire duration of this course LIS 406: Knowledge Management.

ASSESSMENT

Two core forms of assessment are required in this course in order for any student offering this course to pass. The first assessments consist of Tutor-Marked Assignment (TMAs), which are included in each unit. Students are strongly advice to attend to them without delay, so that they do not pile up, otherwise it could discourage them from advancing to the next stage of another unit. The TMAs is part of the continuous evaluation module that are marked and recorded on a continuous basis. It amounts to 30% of the total scores from the cumulative. Therefore, students are instructed to be serious with it, because it will assist and support them to pass the course. The TMAs will be schedule according to the University calendar, as students do not need to panic. The second assessment will be the final examination, which will cover everything that was taught in the course LIS 406. Students are encouraged to adhere to all slated calendar in the University such that, they do not miss the examination.

FINAL EXAMINATION AND GRADING

After the completion of this course, students will be required to seat for the examination of the course LIS 406' Knowledge Management. The duration of the examination will last for 2-hours and the grade point of the course is 70%. Most of the questions that will be given to students are what they already had in their self-assessment of the TMAs, as such, they need to familiarize themselves more with continuous practices of the questions and serious reading of their course materials. This will enable them have good grades after finishing the course. Students are also advice to use their time judiciously so that, they do not miss any of the unit and assessment. It is expected that, the Tutor-Marked Assignment or activities would enable you to study very well as everything in the course is covered, even before your final examination.

COURSE MARKING SCHEME

This table represent the layout of total course marks

Assessment	30% (Undergraduate) 40% (Postgraduate)
Final Examination	70% (Undergraduate) 60% (Postgraduate)
Total	100% course work

HOW TO GET THE MOST FROM THE COURSE

In order to get the best from the course, the student needs an efficient own or personal laptop and access to the Internet. This will enhance the study, such that, learning becomes stress-free and the course materials can also be accessed without geographical boundaries (wherever and anytime). The student will be able to use the Learning Outcomes to guide themselves through self-study approach in this course LIS 406. It is expected that, at the close of each unit, students should be able to evaluate themselves whether they have inculcated the LOs, such that, the purpose of that unit course is achieved.

This could be strengthened through a thorough hard work of preparedness of the student based on the notes and jotting taken at the discussion forum and personal study time in each unit course. It is expected of every student to join the online actual time facilitation planned at schedule. Any time a student missed an actual time facilitation planned schedule, without wasting time, the student should create time to go over the recorded facilitation session, in order not to lag behind other students. The missed time facilitation session of any unit will be a video recorded, that will be dispatched on the online platform. Apart from the actual time facilitation session, it is expected at all times that, the student should watch the video and audio recorded, if any in each unit course. The video/audio helps to review salient points that the student could have missed in the online facilitation session in each unit course. Student can access the audio or videos by clicking on the links provided in the text of each unit concluded at the end of the course page.

It is expected that, students should work round all self-assessment exercises, such that, they leave nothing behind regarding the course content of this study. Lastly, adhere to all instructions given in the class regarding each unit course.

FACILITATION

Bear in mind that, as a student, you will be given online facilitation. The online facilitation is an interactive process where beginners could relate with one another as students learn. The style of facilitation can be asynchronous and synchronous. For the asynchronous facilitation, your organizer or facilitator will:

- Present the theme of the unit to you;
- Lead you through a summary forum discussion on what needs to be covered;
- Manage all the activities in the online platform;
- Score and grade all activities when they are needed;
- Upload students' scores into the university recommended platform;
- Support and help students you to learn in whatever regards provided the whole course is covered. This might include sending personal mails for communications purposes and following up with the extent students are doing in their studies.
- Send videos and audio lectures on WhatsApp, emails, Facebook, LinkedIn, among other social media sites to students, apart from the normal upload on online facilitation platform.

For the synchronous:

- Students are expected to spend minimum of eight hours of online actual time contacts in the course contents. This implies watching video conferencing in the Learning Management System. The eight hours consist of one-hour contact for eight times.
- It is expected that, after spending one-hour each watching the video conferencing, the video will be uploaded for possible viewing at students' own time and speed.
- The tutor or facilitator is expected to focus more on key themes that are most important and known to students in the course.
- The facilitator is the person to present the online actual time video facilitation timetable before the start of the course unit.
- It is the responsibility of the facilitator to take the students through the course guide at the beginning of the first lecture even before the facilitation begins.

Note: Please do not fail to contact your facilitator; in case of anything you are not clear with. You can do so based on the following:

- When you do not comprehend any part of the units or the assignments given.
- Have challenges following the self-assessment exercises.

- Have any questions or issues with an assignment or your tutor ‘s comments on an assignment that was given.
- Please use the contact provided for technical support as well.

Students are expected to read all recommended reading materials, make comments on notes provided by their facilitator specifically on those relating to assignments; participate in the forums and discussions. This provides the student the privilege to socialize with others in the course of the program. Students are encouraged to discuss any problem encountered during their course. This would help them improve tremendously and learn better while they prepare for course facilitation. It is also advisable for students to have outlined list of questions before the discussion session, so as to gain more knowledge from other folks and their facilitator. This will make students to learn broadly while partaking actively in the debate forum.

Lastly, facilitator or course lecturer should respond to the questionnaire posed. This will help the university to know areas of weakness and how best to advance on them for possible future review of the course materials and lectures.

MAIN COURSE

CONTENTS

MODULE 1 KNOWLEDGE MANAGEMENT IN LIBRARIES

Unit 1 Overview/Definition of Knowledge Management
Unit 2 Topology, Processes, Techniques, Tools, And Components of Knowledge Management
Unit 3 Practices and Application (Organization or Business Context) of Knowledge Management

UNIT 1 OVERVIEW/DEFINITION OF KNOWLEDGE MANAGEMENT

Unit Structure

1.1 Introduction

In module 1, unit 1, we shall be considering the overview and definition of knowledge management, scope, objectives, and models. These concepts are the basis for which knowledge management was developed. Knowledge management has to do with the management of tacit and explicit knowledge in organization. The tacit entail those hidden knowledges in human brain or mind while the explicit are the ones found in documents or print format. As students familiarize themselves with these concepts, they would found out that, the module is such an interesting one that encompasses every areas of human endeavours. Everything we do in life surrounds the understanding of knowledge management, whether in the workplace, university environment, political and socio-economic context.

The knowledge, skills and experience which students will gain from this unit would assist them even after graduating from the university. They will require the knowledge, skills and experience associated with

knowledge management for better service delivery and work performance in the organization.

1.2 Learning Outcomes

By the end of this unit, students should be able to:

- Define knowledge management
- Discuss the scope of knowledge management
- Explain the objectives of knowledge management
- Describe the models of knowledge management

1.3 Overview and Definition of Knowledge Management

Knowledge management has to do with the mechanism or capability by which individual and organizational knowledge are managed for longevity, transformation and enhanced work performance carried out on daily basis. Every task and/ or operation requires one type of knowledge or the other. The type of knowledge required for one task or the other comprise of tacit and explicit.

The tacit are those hidden in the mind or human brain while the explicit are those found on documents or print format. Sometimes, either the explicit could be tacit and tacit become explicit depending on the user application. When a user reads any information or study and internalize or digest the information obtained, such knowledge becomes tacit hidden in the mind of the user. In the same vein when the user decides to transfer the hidden knowledge into writing, let say he/she was given an assignment or write a piece of a story, the written information, now made open in print or document is now explicit. Therefore, managing such type of knowledge becomes important.

Take for an instance, a student who registered for a certain course or program at the university, is expected to play diverse roles in ensuring he/she passed the courses. With this in mind, the student would have to plan, prepare and attend classes, attempt his/her given assignment or research paper and at the end of the program seat for the final year examination. It is only when all these requirements have been satisfied before we could tell whether the student met the obligation of the course or program registered for. The processes surrounding when, where and how the student plan, prepare and carry out all the required task in ensuring he/she passed the examination or complete the program encompasses knowledge management. This implies that, when employees are recruited in the organization, they are given certain job description and the processes of harnessing and applying different strategies in fulfilling those tasks in the organization is termed knowledge management.

Knowledge management could be seen from the perspective of how knowledge is harnessed/tapped, created, processed stored, managed, used and disseminated to meet diverse information need of individuals and organization. The processes through which knowledge is created, processed, stored, managed, used and disseminated came from the idea of data being collated, information processed, knowledge acquired and wisdom used for decision making. The understanding gained concerning knowledge management has made present generation and business enterprise seek information and knowledge being panacea to individuals and organizations problem, which could have been difficult to handle ordinarily. Therefore, the expectation from this module is that, students registered for this course/module should be exposed to what knowledge management entails as they cannot tell where they would be tomorrow, that is, after graduating from the university.

The knowledge gained during their study period would sustain them in any organization they found themselves, such that, they could rely on its application for work performance and human sustainability. The understanding which the developer of this module has towards knowledge management is that, there is no organization that could survive with the application of knowledge. Knowledge management has the components of people, process, Information technology (IT), and strategy. These are key elements required for the manning the operations of task in any work environment.

There are several reasons why knowledge sharing being part of knowledge management is important in the organization. It helps to smoothen how information and knowledge are harnessed among colleagues in the organization, inclusive libraries. The shared knowledge has reduced uncertainty, such that, difficult tasks are easily addressed. Knowledge management has also reduced the financial burden of organizations, especially where they are supposed to hire a consultant to do a certain job, but because of the shared knowledge of expertise, the job description can be handled by staff members.

Knowledge management is significant in the present Nigerian economy where libraries and information centres are faced with problem that require solution in the organization. With the understanding surrounding knowledge management individuals in the organization or libraries could share their knowledge to sustain and preserve the organizational resources through the support of digital technologies. At present, there is no organization globally that could be independent and maintainable without necessitating needing one another. For this reason, staff members have to do their best in applying the necessarily policy in ensuring knowledge management practice are put in place.

As an undergraduate student, it is expected that you get prepared for your academic activities but there are times, when you could not meet up with your classes or submission of assignments. In that regard, you might need your fellow student support or assistance, where they will have to share with you the reading materials of the course unit. The core interest is to enable student attend to the obligation expected of them as a student in submitting your assignment. This act or practices could be regarded as a cross-fertilization of ideas between, within, and outside your environment.

Knowledge Management (KM) is not a new phenomenon in the developed world. The understanding from the developer of this module indicate that some developing countries are new to the concept. Knowledge management was first considered in the late 1980s by consulting and the business community. The factor that brought this debate was the importance placed on organization information and knowledge assets and the arrival of the internet being a utility tool for information and knowledge sharing irrespective of geographical boundaries where organizations are situated. Mclnerney & and Koenig, (2011) highlight on the understanding of knowledge management and stated that it involves the process of handling and utilization of information.

Mclnerney and Koenig (2011) categorized knowledge management into the public domain during a conference that was organized by Ernst and Young in Boston in 1993. During the cause of the debate, based on scholars' areas of expertise, several connotations were given to the term of knowledge management. The understanding surrounding what scholars felt was based on how it could help process and perform tasks in the organization.

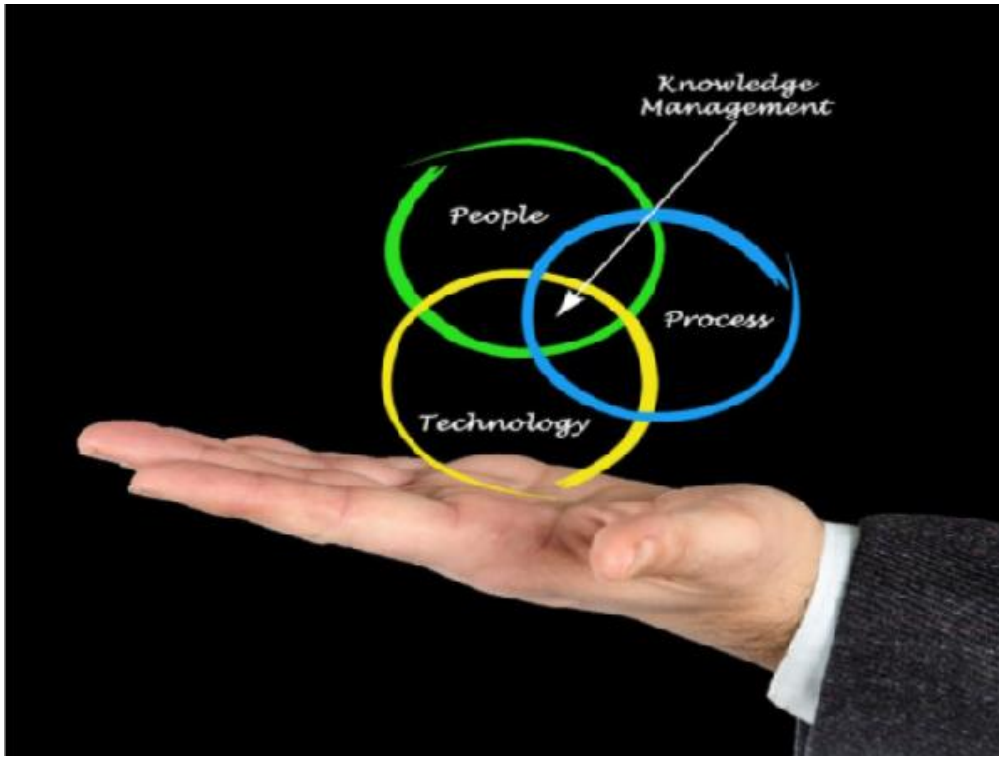

Fig 1: overview of knowledge management
https://www.tutorialspoint.com/knowledge_management/knowledge_management_introduction.htm

The practices of knowledge management irrespective of the organization cannot be overemphasized. The reason is that the human brain now helps to efficiently organize the work performance that leads to a competitive advantage over other competitors. The human brain which is the carrier of the knowledge used in knowledge management activities ensures that innovation is spurred through the evolvement of improving human capacity. Therefore, improving organizational efficiency implies the need for work flexibility since no human being could stay in any workplace forever. The process of turnaround times of employees in their career endeavours require continuous upskilling, and use of appropriate technological tools to sustain the organization, while maintaining lifelong learning for better quality service delivery.

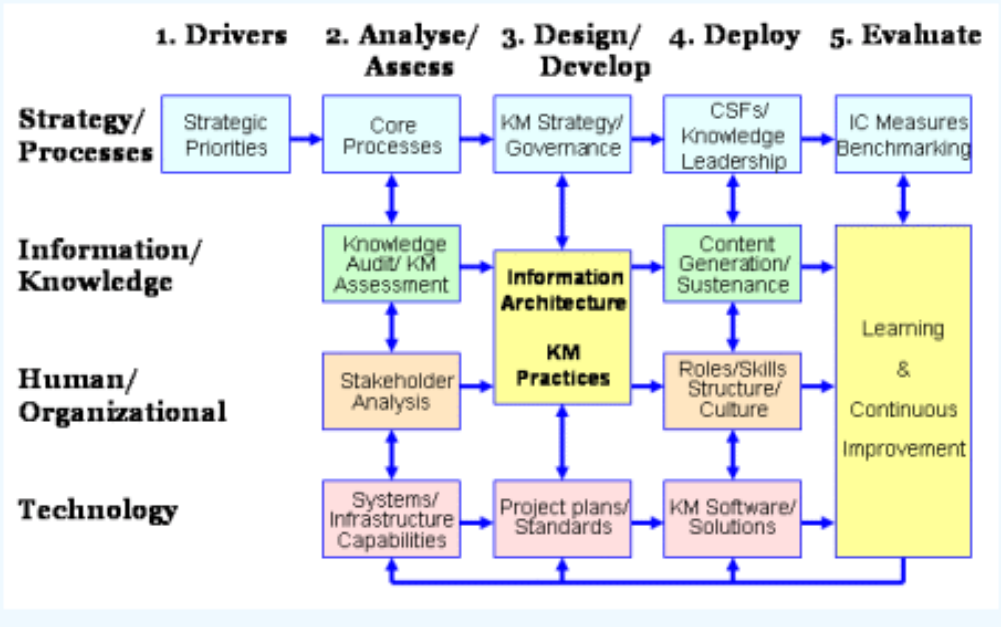

Fig 2: Roadmap to knowledge management
http://skyrme.com/kmroadmap/index.htm

The Women's Bureau of United States Department of Labor (2000) states that, employee's careers have been shorten from a long life to ten (10) and presently three years due to workers mobility and income. The employee's mobility and income fluctuation, which makes employees to move around different organizations has resulted to loss of individual and organizational knowledge. When this happens, the organization is made to suffer a lot of loss, especially, the valuable experiences and skills of experts. Part of the loss could also be attributed to death, loss of jobs, retirement and resignation of employees. Since it is too costly to train and acquire resources like tools to equip new staff members, the need for staff retention and the increase of attractive remuneration becomes imperative.

Malhotra (2001) indicates that 42 percent of organizational knowledge is stored in workers' heads, 26 on paper and 20 digital formats. It therefore, means that, with this percentage in mind, everything that the organization is comprised of is resident on the human head. Since humans are the drivers of organizational growth, KM cannot thrive without humans' effort. The need to continually capture and share humans' experiences, and skills become essential because it would help to reduce uncertainty and increase innovation and competition among other individuals and organization (Serban, and Luan 2002).

The intriguing fact in KM is that it encompasses everything within the organization, that is, from the acquisition of information and knowledge, processing, repackaging, storing, disseminating, and using it for

enhancing work performance and organizational transformation based on shared experiences and use of skills.

https://www.youtube.com/watch?v=oPnpfyAql7Q

Definition of knowledge management

Knowledge management (KM) is a broad term theorized by diverse scholars in multidisciplinary fields, such as Business Management, human resources, organizational development, change management, information technology, performance measurement Information Science and Knowledge Science (Spender, (2015).

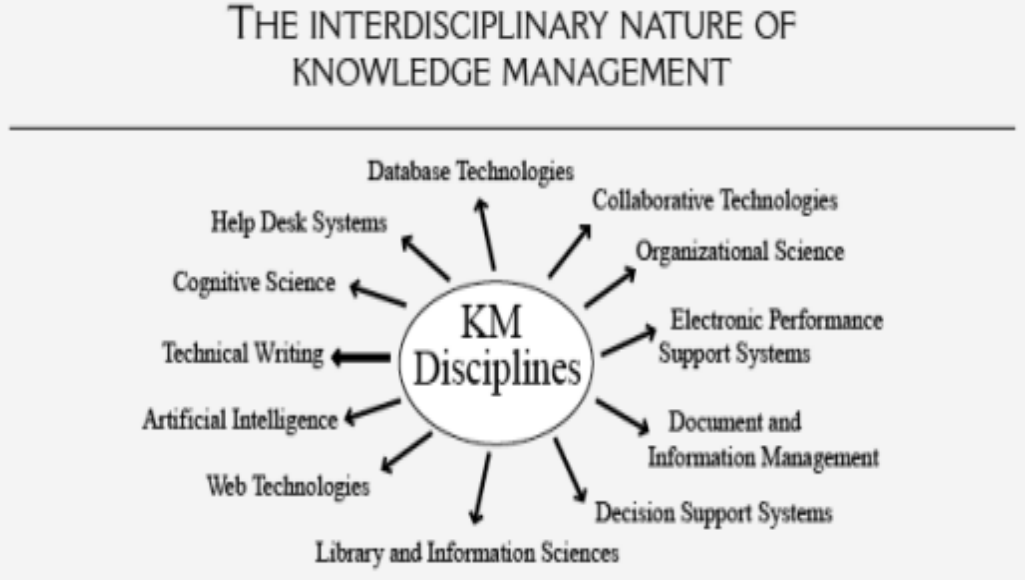

Fig 3: Interdisciplinary nature of KM
https://knowledgemanagementgroup123.files.wordpress.com/2015/06/w2-km.pdf

This consideration result in the nature and changes happening around the world today. Knowledge management implies the managing of organizational and individual knowledge for the achievement of work performance in the organization. In order to carry out such achievement, certain creation of work is showcased among the employees in the organization (Demir, Budur, Omer & Heshmati, 2021). What is being managed in this regard is the knowledge which the employee possesses and uses to invent the action in the organization.

Demir, Budur, Omer and Heshmati (2021), opine that the sustainability of an organization is alluded to the processes through which knowledge within the organization is captured, distributed, and used to maximize work performance is termed KM. It can also be referred to a scenario

where employees identify, captures, evaluates, retrieves, and share organizational assets among other staff members.

The organizational assets comprise of procedures, uncaptured knowledge of staff, policies, databases, documents. Staff members can now use these assets to better enhance their service delivery. In the same vein, Agrawal and Mukti (2020) assert to Knowledge management as the principles that govern the techniques which experts use to meet business operations. The techniques that experts use involves time frame, the scope of the task, efficiency and effectiveness and preparedness (Agrawal & Mukti, 2020).

The concept of knowledge management dwells on how organization run their operations using tacit and explicit knowledge (Ahammad, 2018; Jokanović, Okanović, & Lalić, 2018; Agrawal, & Mukti, 2020). Tacit knowledge is the stored knowledge in the human brain or mind, that is applied in the execution of task or the reproduction of explicit in paper form read in newspapers and books today. The explicit knowledge is the knowledge found on documents produced through the support and effort of tacit. Usually, when ideas (hidden knowledge-tacit) are conceived, they are manipulated upon to form explicit knowledge.

The resultant of organizational transformation is the use of both (tacit and explicit) type of knowledge. The most important thing regarding all the shared understanding of knowledge management is that information and knowledge being asserted in the organization are key components in ensuring a functional system (Ahammad, 2018; Jokanović, Okanović, & Lalić, 2018; Agrawal, & Mukti, 2020).

On the basis of the above view, Ahammad (2018) alludes to knowledge management as the process design to recognize, capture, structure, value, influence, and share the organization's intelligent assets for enhanced work performance of staff members. The process involves the application of staff initiatives, strategies, and systems in sustaining the created knowledge in the organization. Knowledge management is performance enabled through the application of tacit and explicit knowledge utilization (Jokanović, Okanović, & Lalić, 2018). Therefore, the procedures, processes, practices, and policies used in the actualization of the tasks in an organization result in the knowledge management practice available in the system. This approach has made the organizations adopt the strategy of sharing knowledge among staff members, such that, work ethics are well managed. The attitude of sharing knowledge led to building collaboration capability among colleagues. This is due to the fact that everything the organization is made up of is knowledge.

A practical example that represents knowledge management could be viewed in the image below.

Fig 4: Knowledge management
https://helpjuice.com/blog/what-is-knowledge-management

The desire for knowledge management has brought a lot of capability in the organization for deep-rooted research that would make every nation to see how their knowledge economy could be strengthened (Hock-Doepgen, Clauss, Kraus & Cheng 2021). The reason is that, no economy could grow if the people are not ready to harness and share knowledge that would drive sustainable development.

Figallo (2002) refers to building knowledge management networks being key to sustaining the organization. The networks connect staff members to other colleagues within and outside their work environment for the purpose of cross-cultural activities and collaboration. These cross-cultural activities and collaboration would help staff members to tap untapped knowledge from other members in relation to what they do not know. Certain tools of social media and techniques of teamwork and mentorship are very crucial when dealing with knowledge management practices in organizations.

Fig 5: Building a knowledge management network
https://learn.g2.com/knowledge-management

https://www.youtube.com/watch?v=_dEkwRlyszo

https://www.youtube.com/watch?v=nRVx9qhzbgw

1.3 Scope of Knowledge Management

Knowledge management is meant to assist individuals in the organizations to utilize the available organizational knowledge that has been created where job performance is improved, thus broadening content of resources used. The scope of knowledge management according to Serban and Luan (2002) comprises subject areas of Information Science, Knowledge Science, Business Management, human resources, organizational development, change management, and information technology.

Fig **6:** Diversities of knowledge management scope
https://www.alamy.com/stock-photo/knowledge-management.html

Saito (2015) refers to other subject areas that comprised of the scope of knowledge management as management science, business, computer science, organizational science, psychology, library and information science, social science, and planning and development. Saito (2015) alludes that, knowledge management has grown to where it stands as the key component for organizational processes required by information technology (IT) experts to perform their task in the organization.

Fig **7:** coverage of knowledge management
https://stangarfield.medium.com/what-is-the-use-of-knowledge-management-9a3de7c083cd

The emphasis made regarding the scope of knowledge management has brought invention and changes that staff members need to absorb in their culture of knowledge management practices. The scope of knowledge management has also led to improved agility where staff members continually tap, capture, familiarize, transfer and reuse the organizational knowledge to improve the effectiveness of job performance. Another point raised by knowledge-management-tools.net (2018) is that, the scope of knowledge management could be represented in the diagram below. In fig 1 below, it could be observed that the scope of knowledge management encompasses strategy, organizational culture, processes, leadership, technology, and corporate politics required by staff members to enforce their job performance in the organization.

Fig 8: scope of knowledge management,
http://www.knowledge-management-tools.net/

The understanding had from the previous discussion on the scope of knowledge management stretch further to business transformation, innovation, information management, knowledge base systems, intellectual assets, and learning organization. These have become so profound for staff members to explore, such that through it, they can learn and strengthen their intuition for organizational growth.

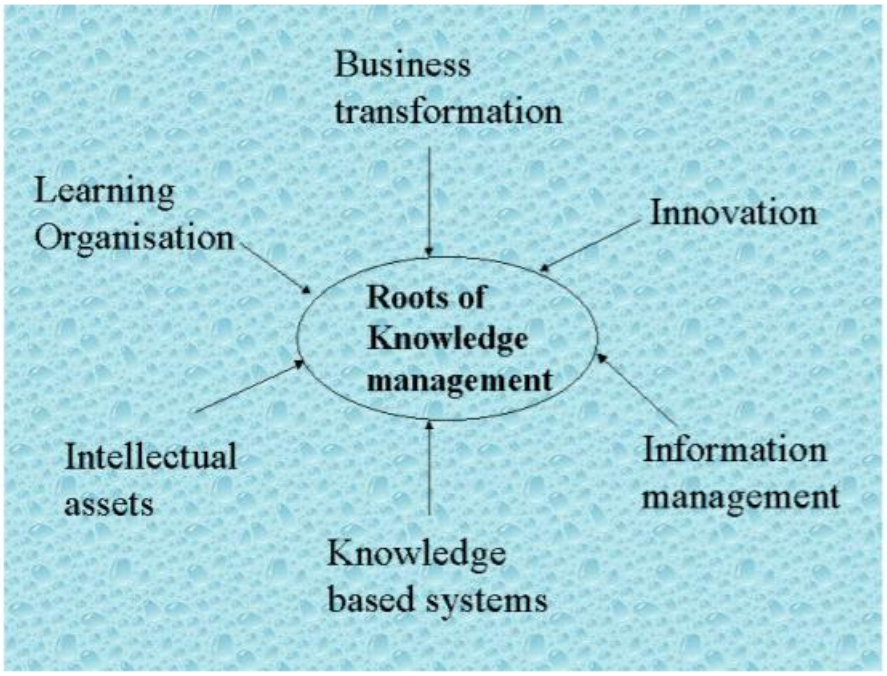

Fig 9: Roots of knowledge management covers the scope
http://www.providersedge.com/docs/km_articles/km_an_overview.pdf

Presently, the scope of knowledge management has overlapped to the extent that, managing information and knowledge takes diverse forms. The forms encompass where staff members have to create, retain, share, use, and update for organizational learning. These practices would not have been easy without the appropriation of technology, people and policy support.

Video **1.**

https://www.youtube.com/watch?v=RhHMgkUdhdk&t=4s

1.4 Objectives of Knowledge Management

By objectives, we refer to the purpose for which knowledge management was established/formulated and developed to be part of human exitance and organization. The objectives of knowledge management are diverse in contexts and from one organization to another. The reason for this assertion is that, apart from knowledge sharing for enhanced job performance among staff members, issues with the application of best practices in the organization, policy formulation, and implementation are fundamental. University of Alaska Office of Information Technology (2012) refers to sharing ideas, experience, and knowledge as key factors in knowledge management objectives. These help staff members to unravel known to unknown concepts difficult for

them to tackle. The shared knowledge improves efficiency and reduces uncertainty.

The University of Alaska Office of Information Technology (2012), attests that through the support of knowledge management, employees and management staff would be able to achieve the following:

(i) carry out informed decisions among colleagues with align policies in the organization
(ii) Ensure the organizational structure is re-engineered
(iii) Manage reliable data, information and knowledge on daily basis
(iv) Provide efficient and effective service delivery at a reduce cost with discovered knowledge
(v) Support staff members with clear direction and mutual understanding of how customers should be treated
(vi) Provide a value judgement for organization in relation to other competitors
(vii) Maintain a functional knowledge management system, easy access to valuable data and information in utmost priority in the organization.
(viii) Ensure staff members gather, analyze, store, use and maintain knowledge management capability
(ix) Ensure work done by staff members in the organization are assessed and scored
regularly score to work done by staff members in the organization.
(x) Ensure task are processed timeously
(xi) Assist staff to learn technology enabler as means of operation in planning, organizing, coordinating, directing, staffing, evaluation and monitoring.
(xii) Build a legacy of knowledge, where values, principles, and strategy are crucial on what staff does.
(xiii) Increased productivity among staff members
(xiv) Help manage knowledge stored in repositories
(xv) Helps alleviate human error
(xvi) Assist employees navigate within the organization on the culture practice
(xvii) Gives agility to knowledge accessibility
(xviii) Makes employees integrate into organizational performance
(xix) Provide collective knowledge that will support individual and the organization on smart decision
(xx) Help maximize knowledge loss among individuals
(xxi) Ensure knowledge sharing to reduce the risk of data and information loss

The above-mentioned objectives of knowledge management have helped to transform the organization such that, the knowledge of employees is retained for the maximization of innovation, training, better service delivery, improved collaboration, and building organizational knowledge. The idea behind the objectives of knowledge management is that the core entity through which actions or activities of work performance take place is by human effort. Therefore, the need to capacitate human beings becomes essential such that, they could help manage the organization in the right culture for better productivity and organizational transformation. The transformation experience in the organization results from proper decision-making and planning among staff members. This emphasis demonstrates an analogy of a student who enrolled in a higher education institution or a staff member who was newly employed learning how to navigate his/her way in the organization.

The act of enrolling in a program in any higher education institution by students is another form of knowledge management. When a student enrolls and is registered for a course, he or she is given orientation on how to go about attending classes, thus requiring the student to consult the library and make use of the books available and his knowledge. The use of both the recommended books and that of his/her personal brain is knowledge management. The reason is that when a student study or reads, he/she digest and assimilate what is being read, and that knowledge forms tacit. By the time the student writes assignments, home works, and examinations, the written information/knowledge becomes explicit. This implies that for staff members to excel and do better in their work operations, they must read or study in order to acquire more knowledge and skills required in the pursuit of the organizational goals.

Fig **10:** Higher education institution students engage in knowledge management
https://www.unesco.org/en/education/higher-education

Video **1.**

https://www.youtube.com/watch?v=RhHMgkUdhdk&t=4s

Self-Assessment Exercise 1.

1.	How would you develop similar knowledge management definitions, as a library and information science student?
2.	Why do you feel the scope of knowledge management is diverse into multi-interdisciplinary?
3.	Why are the objectives of knowledge management important?

1.5 Models of Knowledge Management

A Model could be regarded as a useful picture or symbol of an object, person, or system. It helps to understand certain entities in the object or person, for instance, the plan of a building. The model helps to unveil what such an entity entails or represents. Models are designed for the purpose of sharing knowledge in the organization. When sharing knowledge with colleagues, certain objects, images, or representations could be used to unveil what is meant or being shared. This is to give a clear picture of the process of sharing such information and knowledge. When referring to models of knowledge management, we imply structured ways through which knowledge management is used in the

organization by employees, to manage the functions of activities (Three KM Models, 2018).

The activities being managed refer to the specific and general tasks given to the various staff that works in the organization (Three KM Models, 2018). Considering the roles which knowledge management plays in the organization, using tacit and explicit knowledge by human beings, the products, and services rendered in the society become more efficient and effective on a gradual process. The rationale of the models of knowledge management is to bring theory into practice based on existing knowledge management models used in the organizations.

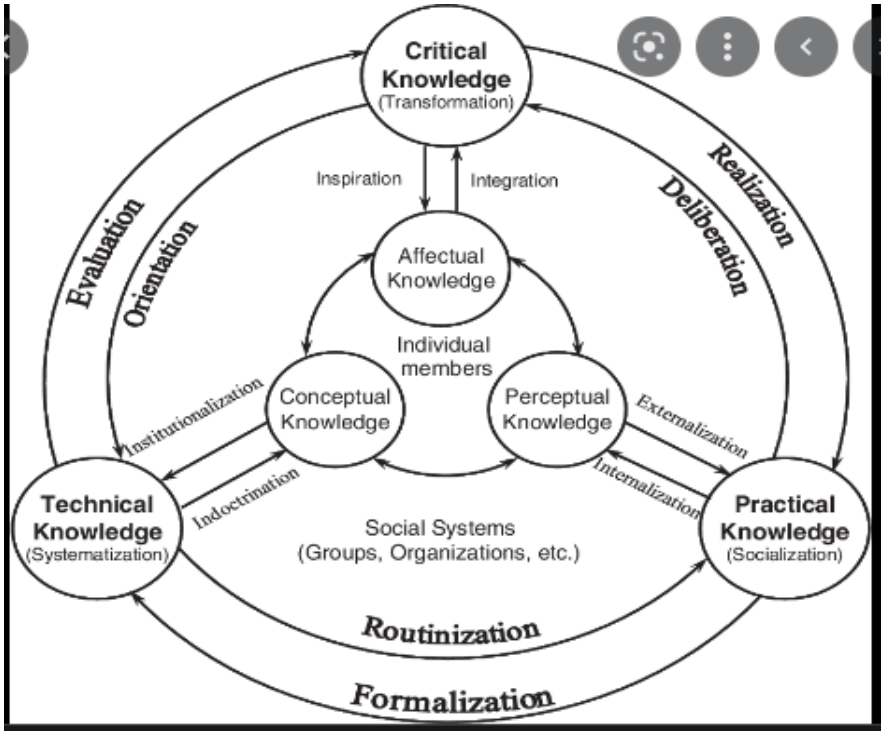

Fig.11: Holistic view of knowledge management model
https://www.semanticscholar.org/paper/Holistic-Views-of-Knowledge-Management-Models-Yang-Zheng/23d924c3c53e227065dc03fc1909d634c45bc11a/figure/1

There are several knowledge management models used in present-day information and knowledge organization. The models use different images or objects to represent knowledge and information which would have been complex or difficult to explain ordinarily to individuals in the organization. Among some of the models of knowledge management are: the KM Process Framework by Bukowitz and Williams on the KM Matrix by Gamble and Blackwell (2001), Knowledge Management Process Model by Botha et al (2008) (Three KM Models, 2018) among others too numerous to mention.

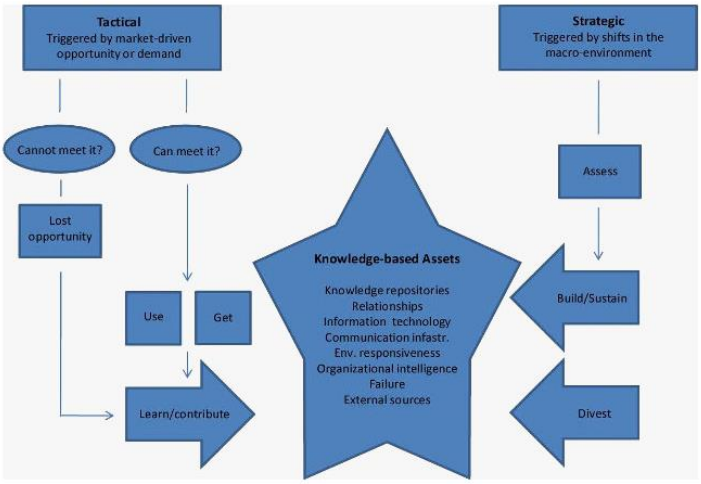

Fig 12: The KM Process Framework by Bukowitz and Williams (Three KM Models, 2018). https://www.knowledge-management-tools.net/three-km-models.php

The knowledge management models according to Bukowitz and Williams on the Three KM Models (2018) depicts the processes of applying certain strategies of management that involve building, stripping, and enhancement of knowledge assets in the organization. The reason for such emphasis is to know when and why building knowledge is important. This model has the capability that put knowledge management action into context. Another intriguing image worth noting regarding this model is the inclusion of 'divestment' that is not included in most knowledge management models. This brings us to a fascinating knowledge management initiatives strategy employed by many organizations (Three KM Models, 2018).

Type / Approach	Embodied	Represented	Embedded
Sense	Observe	Gather	Hypothesize
Organize	Contextualize	Categorize	Map
Socialize	Share	Disseminate	Simulate
Internalize	Apply, Decide, Act		

Fig 13: The KM Matrix by Gamble and Blackwell (2001)- (Three KM Models, 2018)
https://www.knowledge-management-tools.net/three-km-models.php

The Knowledge management Matrix model by Gamble and Blackwell (2001) refers to a broad spectrum of the theoretical frameworks of knowledge management and a specific requirement that must be met for implementation to take place. This model comprises four stages. First, the source of knowledge must be located in the matrix, then its organization becomes imperative for easy access such that it could help to strengthen the organization due to its usability. What follows next is socialization, through the application of various techniques for which the knowledge could be shared and disseminated to whoever needs it in the organization. Finally, internalization becomes crucial for the purpose of use to meet diverse organization needs and individuals (Three KM Models, 2018).

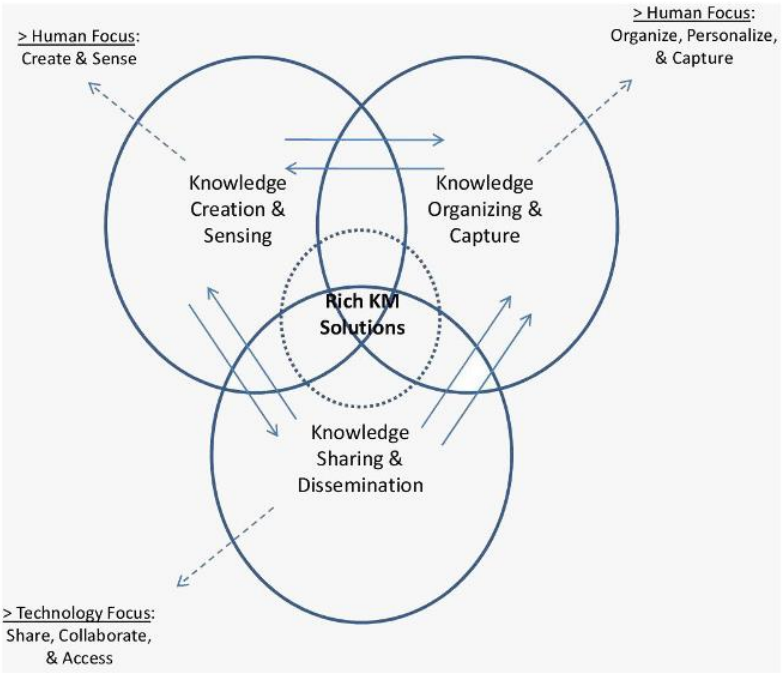

Fig.14: The Knowledge Management Process Model by Botha et al (2008)- (Three KM Models, 2018), https://www.knowledge-management-tools.net/three-km-models.php

The knowledge management process model challenges the realistic impression of the knowledge management process. The reason is that the knowledge management process which comprises people, process, information technology, and strategy, are used to navigate the business operations carried out through capturing of knowledge, storing, organizing, verifying, distributing, and re-using to meet organizational needs.

It can be deduced that the three models of knowledge management overlap in their interaction processes. For example, Gamble and Blackwell main focus is on making knowledge management initiatives a reality, Bukowitz and Williams depicts on the application of strategies

of management that involve divestment, while the one by Botha et al (2008) speaks more on the knowledge management process.

It can be observed from the understanding had in this segment that the three knowledge management models are more people-oriented than technology-focused. We cannot also say that without people knowledge cannot be shared because even if we have to use technology, people are the drivers of the technology. Nonetheless, how the organization operates or functions depends largely on the class of individuals in that organization and what they carry in their brain.

One intriguing thing that is significant in the models discussed is knowledge management initiatives though not very pronounced because it was not discussed. Every action of knowledge capture to its sharing rest on knowledge management initiatives that have been developed in the organizations. The usefulness of knowledge management models cannot be undermined considering how it has underpinned the roots and part that each variable in the models represents. Other types of models of knowledge management according to Dalkir (2013) are:

- Theoretical Models of Information and Knowledge Management.
- The Nonaka and Takeuchi Knowledge Spiral Model
- The von Krogh and Roos Model of Organizational Epistemology
- The Choo Sense-Making KM Model
- The Wiig Model for Building and Using Knowledge
- The Boisot I-Space KM Model
- Complex Adaptive System Models of KM.

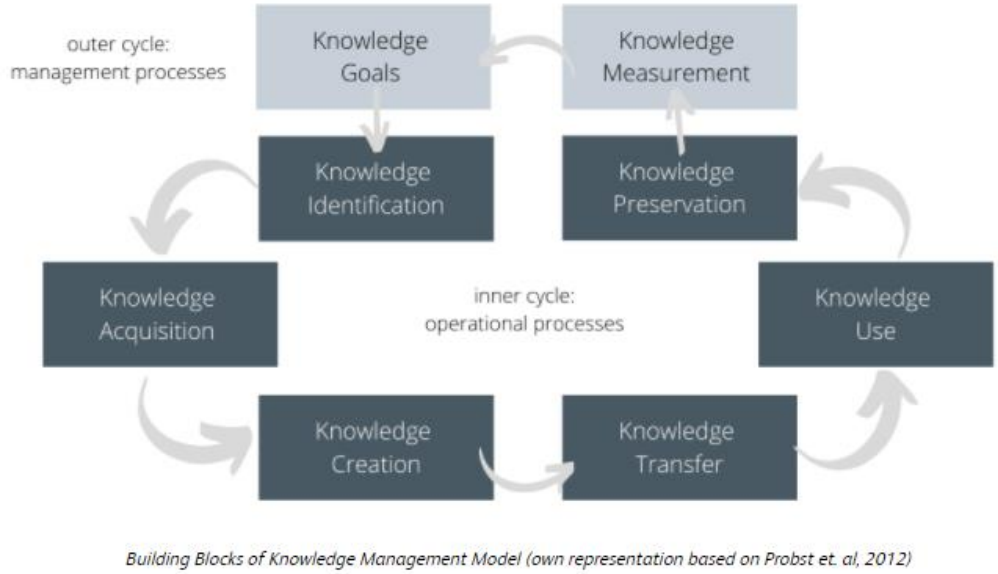

Fig 15: Fig: Knowledge management model by Probst et al, 2012
https://blog.hslu.ch/majorobm/2020/04/01/kne-knowledge-management-part-3/

https://www.youtube.com/watch?v=Ef4Q0uwmzIM

The understanding of knowledge management has brought different processes of knowledge creation, classification, transfer and application for better service delivery. The idea and ability surrounding individuals' efforts depends on what the individual carry in their brain and what they in mind to do. This shows that we know more than we can imagine hence knowledge management cannot be undermined. The organization rely strongly on it in sustaining their operations. Knowledge management is a mixture of what they employees has in their mind and processes that take place in the organization. So, no matter the circumstances, time has a role to play on what approach the individual could use in managing the library activities. In any business operations, what is most significant is how the business owner was able to apply certain strategy in transforming the business ideas. So, it is in the corporate world of business or organization. Even though organizations have good objectives and have broaden their scope in what they do, the effort of the knowledge carriers is most significant. Therefore, it is beneficial for libraries and information centres to incorporate knowledge management practices into the organization so that, staff members could share what they know best. This is the only way the organization would move forward.

Self-Assessment Exercise 2

1. What makes up models from the definition you have developed using your knowledge management initiatives?
2. How has the knowledge management models builds organizations?

1.5 Summary

This unit examined the overview, definition, scope, objectives and models of knowledge management. The justification behind the emphasis regarding the variables mentioned is due to the changes that have evolved in the organization requiring the application and use of human knowledge to accomplish tasks in the organization. Presently, even though the use of technological tools has become part of the library operations globally, knowledge management is still the driver of the organization because that is where individual knowledge is tapped to create new knowledge. Knowledge has become a panacea through which task are achieved in the organization. It comprised of a value complex experience and skills acquired over a period of time.

It is a fluid of experience gained in the workplace. Knowledge implies a scenario where you read an article or book and the information contained in it helps the individuals to understand the circumstance surrounding the story therein. The information acquires about the story that was told in the book or article read is now resident in your mind and when you apply it, it becomes knowledge in your brain. Knowledge is what enables every individual to accomplish all tasks in the organization.

The created knowledge helps in the application of processes of documentation of activities carried on a daily basis. The essence of knowledge management has brought informed decisions among colleagues in the organization such that, they were able to re-organize their thoughts in affirmed structure and policy. This has given staff members a clear direction and mutual understanding of how customers should be treated whenever their information needs change. Based on activities or work performance in the organization, staff members could create models based on task of operations and this model serves as a benchmark. The created models are liable data, information and knowledge that management officials could use for decision making, whenever they are confronted with difficulties.

1.6 Glossary

1. Knowledge management implies the capability by which individual and organizational knowledge are managed for longevity, transformation and enhanced work performance carried out on daily basis
2. Tacit and explicit knowledge are the key to the operations in the organization.
3. The human brain are the engine block to knowledge management activities
4. Knowledge management are multi-interdisciplinary fields that cut across management science, business, computer science, organizational science, psychology and among others.

Assignment File

The prediction here is that the students should attempt the following:

1. Give an overview of what knowledge management entails?
2. Identify three (3) definitions of knowledge management and draw a distinction between each of the authors' views?
3. What are the various objectives of knowledge management and how are they useful to library and information centers management operations?

4. Identify three models of knowledge management and write short notes on them?

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1.8 Possible Answers to Self–Assignment Exercise

1. The development of similar knowledge management definitions encompasses diverse knowledge of tacit and explicit knowledge obtained through acquired knowledge and experience of this module amidst other relevant materials and readings which the students have explored.
2. The scope of knowledge management is diverse into multi-interdisciplinary because the field of knowledge management was developed to meet the need of different fields and that as knowledge continue to evolve, its management because imperative
3. The objectives of knowledge management are important because it helps to give direction to the organization
4. Different concepts or ideas are what makes up models' knowledge management initiatives
5. The knowledge management models help to build organizations based on different concept used to foster the activities in it.

UNIT 2 TOPOLOGY, PROCESSES, TECHNIQUES, TOOLS, AND COMPONENTS OF KNOWLEDGE MANAGEMENT

Unit Structure

2.1 Introduction

In previous unit 1, we considered the overview and concept of knowledge management, scope, objectives, and models of knowledge management. The rationale regarding this analogy was for students to have a better understanding of the basis for which knowledge management as a philosophy was developed by scholars. Presently, irrespective of the contexts we find ourselves, in everything employees do in the organization comprises knowledge management. The reason is that employees now make use of their brain more than using explicit knowledge (knowledge on documents/literature) to identify, capture, evaluate, retrieve, and share organizational knowledge for better service delivery and performance of their responsibility.

Organizational knowledge which comprises procedures, policies, databases, and documents are now tapped to enhance the growth and sustainability of the system. With this in mind, staff members can now use these assets to better enhance their networking of continuous knowledge-sharing practices.

In the present unit 2, we shall be considering the topology of knowledge management, processes, techniques, tools, components, and policy of knowledge management. These are the building blocks through which knowledge management was formed. These factors or variables discussed below cannot be undermined for any prospective students. They are utilized to govern the operations carried out in the organization, including libraries and information centres.

2.2 Learning Outcomes

By the end of this unit, you should be able to:

- Explain topology of knowledge management
- Discuss the processes of knowledge management
- Describe the techniques of knowledge management
- Discuss the tools of knowledge management
- Describe the components of knowledge management

2.3 Topology of Knowledge Management

Topology of knowledge management has to do with the anatomy of knowledge management. When knowledge management was postulated, it came with the understanding that it did not fall from the sky, rather it metamorphosed from data, information, knowledge and wisdom (Cleveland, 1982: Knowledge Management Topology: The Futurist, December 1982 p. 34-39). The understanding surrounding the topology could be virtualized from the graph below.

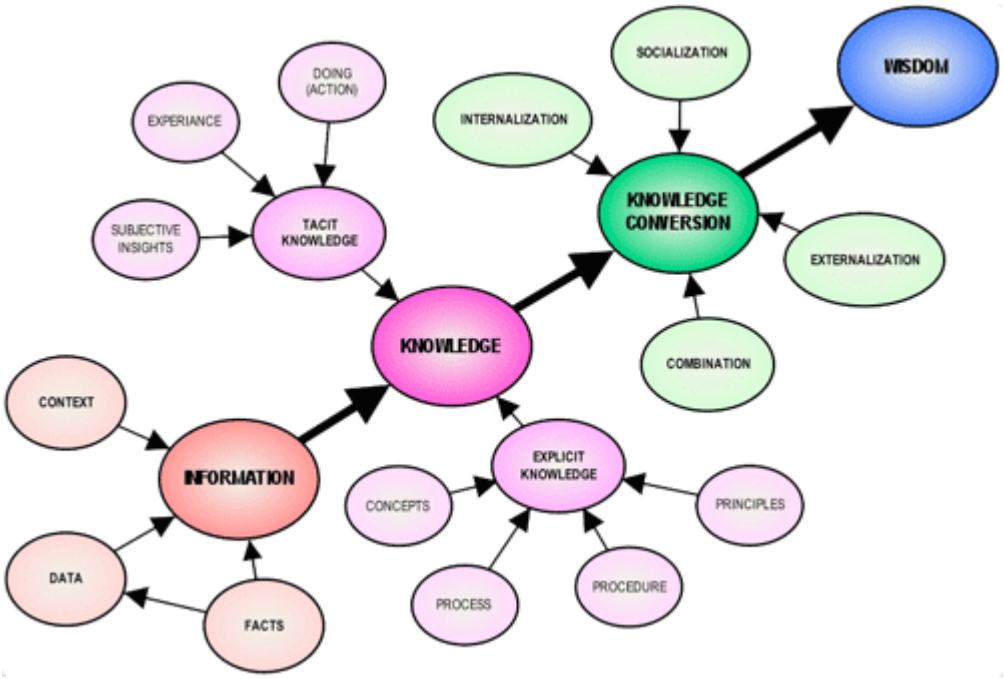

Fig.16: Knowledge management topology
http://www.ddavid.com/groundzero/km3.htm

To understand the topology of knowledge management better, it is important we substantiate the steps through which the anatomy of the topology was developed. The first steps earlier mentioned was data, followed by information, knowledge and wisdom.

Data: Data has to do with raw materials yet to be processed. They take the form of figure, image. These are used for different purposes of decision making and planning in the organization and by individuals for research practices. Research has proven that data could be used for creation, gathering and discovery in the laboratory. Data could take different form depending on the context and purpose for which is it requested. Examples of data could take different forms nominal, ordinal, discrete and continuous.

Information: Information could be regarded as a processed data, useful for action irrespective of the contexts, organization and individuals. When data are turned into an organized form, it become information. The essence of turning it into a meaning form is because there is a need for it. Information is very vital in present-day economy as it is meant for several purposes. Anyone who is informed cannot be deformed. The usefulness of information cannot be overemphasized because the difference between the rich and the poor people today is as a result of access to vital information being utilized.

Knowledge: Knowledge is regarded as a deeper meaning of information. It could be seen as a complex experience, knowledge, and skills acquired over a period of time. It is a fluid of experience gained in the workplace. A scenario where you read an article or book and the information contained in it helps individuals to understand the circumstance surrounding the story therein. The information acquires about the story that was told in the book or article read is now resident in your mind and when you apply it, it becomes knowledge in your brain. Knowledge is what enables every individual to accomplish all tasks in the organization.

Wisdom: Wisdom is the deeper root of knowledge. A better understanding of wisdom is through its application. Knowledge acquired results in wisdom. Wisdom operates within knowledge acquired over a period of time. When experiences are shared and it happens that the experiences possessed by an individual are deeper and better to solve a problem, we could regard that as someone with wisdom. Wisdom is not hidden as they are usually shared among folks and friends. Therefore, as students continue to learn in any higher education institution, what enables them to excel and become outstanding in their grades is wisdom over experiences gained over a period of time.

2.4 Processes of Knowledge Management

Knowledge management has become so essential that without its processes, its application in the organization becomes difficult. The processes of knowledge management vary in context and range from acquisition, storage, distribution, and use (Gonzalez & Martins, 2017). Knowledge management processes involve different activities that assist the organization to accomplish tasks. These tasks could be enabled through the application and use of knowledge in the organization. Knowledge management processes is a continuous practice in which one form of knowledge is transformed into another (Dhamdhere, 2015b; Alegbeleye, 2010; Mutula and Mooko, 2008)). Therefore, the support to transform knowledge from tacit to explicit and vice-versa becomes important. In the same vein, Dhamdhere (2015b), Alegbeleye (2010); and Mutula and Mooko (2008) identified the following as the processes of knowledge management, which include: knowledge acquisition and generation, knowledge capture, knowledge organization, knowledge storage, sharing and application. A description of the processes of knowledge management can be viewed in the image and videos below.

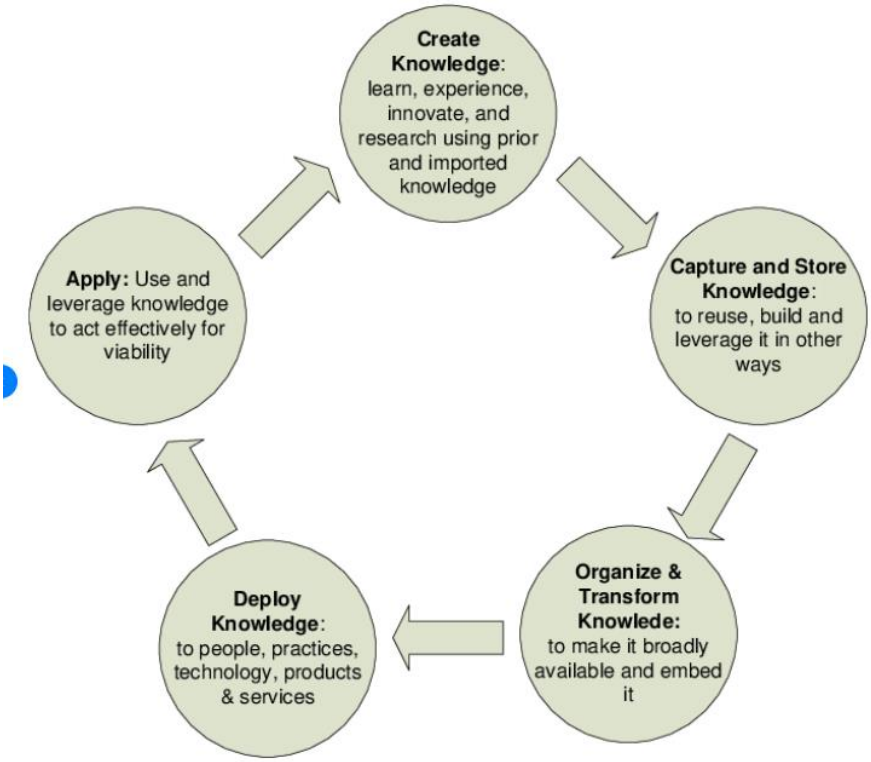

Fig.17: Knowledge management processes
https://www.researchgate.net/figure/Knowledge-management-processes_fig3_334367961

(i) Knowledge acquisition: By knowledge acquisition, we imply the act of searching for the right knowledge and possessing it for personal and organizational use. Knowledge acquisition denotes the act of seeking in

order to know then acquire. When employees seek knowledge, it means they have a need for it. Gonzalez and Martins (2017) note that due to the intra-organizational process that takes place in the organization, employees seek knowledge through the creation of tacit and explicit knowledge. The act of seeking knowledge starts with the individual and it moves gradually into the organization. We individuals seek for knowing by way of first identifying, thereafter absolving the information and knowledge from the external knowledge source (Gold et al., 2001). To this end, Gonzalez and Martins (2017) further note that knowledge acquisition is the creation of knowledge within the organization. Different processes of learning, training, teaching, practices, mentoring, taking responsibility, and supporting one another could be regarded as ways through which knowledge acquisition takes place. The learning processes according to Zollo and Winter (2002) imply taking responsibility for administrative activities of working routine and self-motivated competence among employees because it enables them to improve in their routine adjustment.

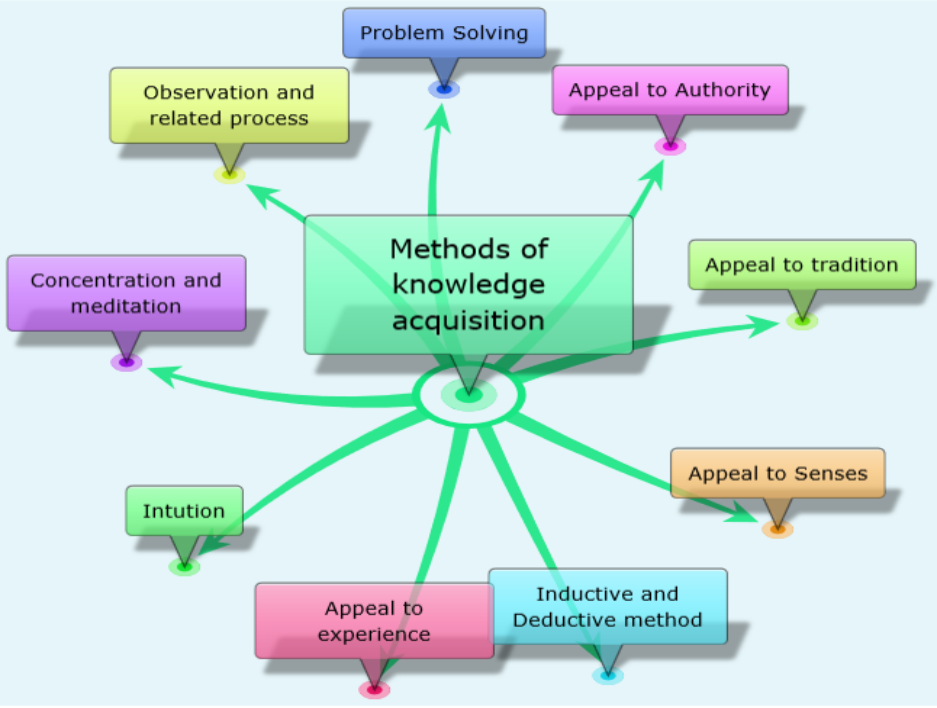

Fig.18: Knowledge Acquisition
https://physicscatalyst.com/graduation/methods-of-acquiring-knowledge/

(ii) Knowledge Storage: By knowledge storage, we refer to the stored knowledge in our mind or brain. It can also be established that knowledge storage can be found in the organizational memory and system which comprises policies, databases, and routines. The stored knowledge of the individual and organization give the value that surrounds the rules, structure, and culture practiced in the organization (Alavi & Leidner, 2001; Argote et al., 2003). Knowledge stored could

be found in books, CDs, an institutional repository (Igbinovia & Ikenwe, 2017). The essence of storing this knowledge (explicit and tacit) is to use it to support the coordination of tasks or job descriptions, the development of staff members in the organization. Organizations and individuals have been shown to store knowledge in different ways. Some of the ways include human beings, that is, in their brain, culture, repository, Structure show to store set of rules, orders, and qualities which makes the functional model (Igbinovia & Ikenwe, 2017).

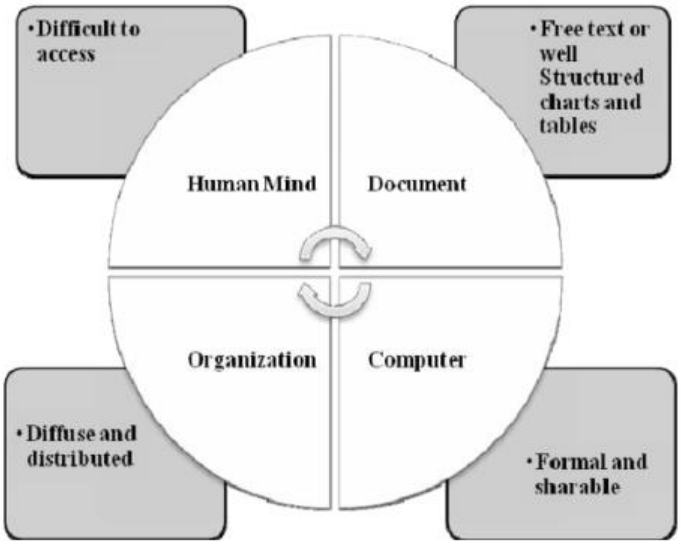

Fig.19: Knowledge storage
https://www.researchgate.net/figure/Figure1-Knowledge-storage-media-and-its-features_fig1_50392297

Lin (2007) elucidates that knowledge storage point toward the translation procedure that involves grouping, configuring, storing and combining the knowledge in the instruction to enable future use by those in need of it. Information technology (IT) has shown to play a key role in the applications of encoding the knowledge, such that it can be shared. Another thing to be considered is the formation of communal knowledge directories through networks of users (Alavi & Leidner, 2001). This made Rowley (2001), Thompson and Walsham (2004) and Huysman and Wulf (2006) to draw inference to the significance which (IT) has over knowledge retention strategy. Huysman and Wulf (2006) note that, organizations would continue to create knowledge such that it could be stored for use transformational purpose. The purpose that led to knowledge storage was to bring about its sharing among colleagues in the organization.

(iii) Knowledge Distribution: Knowledge distribution denotes the procedure through which novel information from diverse sources are collectively shared. The rationale is to bring about the conception of innovative knowledge, which must be understood like information (Lee & Yang. 2000). Lee and Yang (2000), mentioned the distribution

processes requiring organization to assemble what they have created. Some of the ways through which knowledge could be disseminated is through group discussion, transfer among folks, when teaching and learning is ongoing, giving a talk, sending emails, publishing research papers among others. It is not enough to say that organization has adequate ownership of knowledge when it is not shared. The organization ought to safeguard the movement of knowledge such that, learning processes among individuals, should result to improved work performance (Yuan et al., 2010).

Fig 20: Knowledge Distribution
https://www.dataversity.net/distributed-knowledge-marketplace/

Levine and Prietula (2012) mentioned different ways knowledge could be distributed and they are self-learning, contact to contact basis among individuals, performance relations, group discussion, communities of practice and exchange of information and usage of languages language (Brown & Duguid 2001). Other forms listed by Levine and Prietula (2012) are through tacit and explicit knowledge exchanges. Due to the fact that knowledge is most significant for use in the organization, the need to circulate it becomes imperative. The essence of such distribution is for correctness and critical analysis whether it is most accurate or refined.

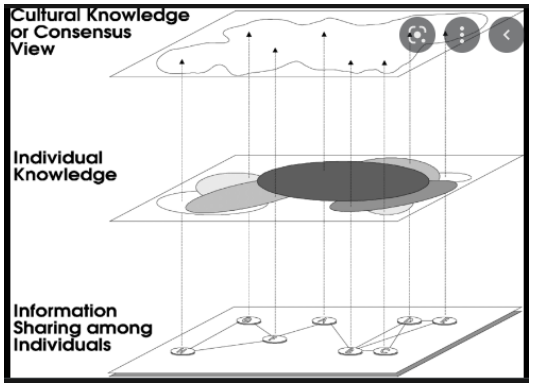

Fig.21: Knowledge Distribution
https://www.dataversity.net/distributed-knowledge-marketplace/

(iv) Knowledge Use: Knowledge use has to do with putting the knowledge acquired into use in the organization. The use of knowledge could be for diverse purposes: carrying out job performance, writing research paper, developing and delivery lectures, developing lecture notes and modules for students among other factors. Ganzaroli et al (2016) note that, knowledge use is the capacity through which the individual owner of the knowledge put it into use. The knowledge use could be to trace, contact, and develop personal knowledge such that, the information and knowledge stored are fully put into use in a recognized and unfamiliar memory systems. Knowledge cannot be left on its own, rather put into use, hence the essence of its creation. A scenario where students write their assignment, carry out research work and put their brain into reading in preparation for examination and other activities in the university system, they are putting.

Fig 22: Knowledge Distribution
https://conxpros.com/knowledge-is-power-when-put-to-use/

Knowledge use can also be integrated into the expansion of innovative knowledge such that, modernization, conception, and present knowledge are used for making decision. Therefore, the use of knowledge cannot be undermined in any context and organization, due to the unequal atmosphere of knowledge where decision is required. The same applies to developing business opportunities through exploratory character of the individual. The primary focus of knowledge use is to create innovative knowledge that could enhance job performance of the individual (Ganzaroli et al., 2016; Nooteboom et al., 2007).

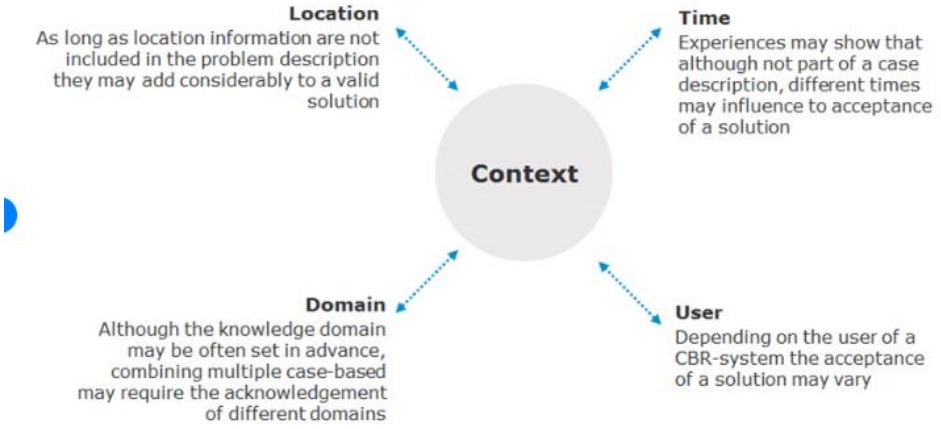

Fig 23: Context of Knowledge Distribution Hundt et al., 2014) https://www.researchgate.net/figure/Examples-of-context-knowledge-use-Hundt-et-al-2014_fig7_310301250

1. https://www.youtube.com/watch?v=FNS1lE5ncns

2. https://www.youtube.com/watch?v=CahRZsG9nOI

2.5 Techniques of Knowledge Management

By technique, we imply the strategies through which knowledge management is practiced in the organization. Techniques vary in context, and content based on what needs to be achieved. Some of the ways or technique, knowledge management is practiced could be seen as identification of knowledge of employees by evaluating what they know and how capable they are in their job performance. Capturing the knowledge is very crucial such that, it could be evaluated, retrieved/harnessed, and shared among other colleagues to meet organizational goals and objectives. When employees apply different strategies of knowledge management, it becomes easy to identify, capture, evaluate, retrieve, and share individual and organizational knowledge.

Fig 24: Knowledge management technique
https://blog.hslu.ch/majorobm/2020/04/01/kne-knowledge-management-part-3/

The techniques applied in KM varies on the tasks that require employee's expertise (Ogiela, 2015). The techniques used for knowledge management in the organization could be categorized as identification, codification, procedures, designs, operating guidelines, marketing, and identifying. These the individual in the organization uses for documenting, managing, and operational practices in the organization. Based on this analogy, the figures below also represent different way knowledge management techniques are applied in the organization.

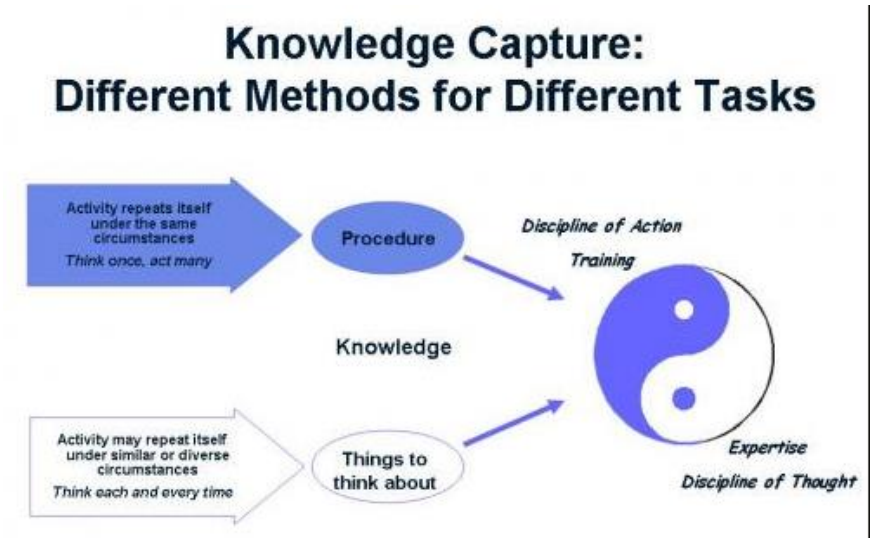

Fig 25: Techniques of knowledge management-Different methods
http://www.greenesconsulting.com/services/list-services/knowledge-capture-retention

The representation of the above image indicate that techniques used in knowledge management vary in context and goals of the organization. It could be deduced that different methods apply to different tasks. In this regard, applying the same procedure to knowledge application might not work for the same task, hence certain training and exposition are required, since employee expertise differs in the organization.

https://www.youtube.com/watch?v=sVtMC3GkMr0

This made Ghani (2009) refers to brainstorming, community of practices, face to face interations, training, staffing and knowledge gatekeepers as techniques that could be applied in knowledge management by employees. Rao (2012) refers to continuous review of work operations, monitoring and evaluation of staff tasks, operationability, taking inventory, training, support staff system, and attitude as techniques of knowledge managementt. The understanding obtained from this assertion is that the student could apply several strategies in their module study such that, their preparation for future tasks could be well balanced in exposition to knowledge had while in the university.

2.6 Tools of Knowledge Management

A general understanding of the term tools means a device or instrument which could be held in someone hand and used to carry out a specific and general roles, activities and functions in the organization or household. A good example of tools is shown in the image below. These tools are used for general and specific work operations in the organizations. The tools used by one individual might not be the same tools that can be used by another person. This attributes to the specification of tasks or jobs that need to be carried out. Tools are very crucial in accomplishment of job description in the organization. It helps to enhance and facilitate enormous task which might be difficult to handle with the physical hand or mind. Tools helps to improve the knowledge of the individual especially when applying tacit type of knowledge in the execution of jobs in the organizations. The rationale of the use of tools will assist students in diverse way, especially using tools such as the computer system, pen, ruler, marker and drawing board to support their teaching and learning and research interface in the university.

Fig 26: Different tools for diverse purpose
https://www.google.com/search?q=Different+tools+&tbm=isch&ved=2ahUKEwi0tbb65cP5AhWYg84BHV_9AHMQ2-cCegQIABAA&oq=Different+tools+&gs_lcp=CgNpbWcQAzIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgARQAFi6BGD4DWgAcAB4AIABkwOIAZMDkgEDNC0xmAEAoAEBqgELZ3dzLXdpei1pbWewAQDAAQE&sclient=img&ei=LZb3YvTqNZiHur4P3_qDmAc&bih=657&biw=1366&rlz=1C1GCEA_enZA993ZA993#imgrc=yly4QbQvFTjSCM&imgdii=s3xZJNSysnCNmM

Nevertheless, regarding the tools for knowledge management, Ghani (2009) notes that it has to do with systems created to manage knowledge-intensive procedures in order to have a successful functionality in the organization. Knowledge management has an extensive variety of operations in the organization, as such, applying information technological (IT) tools to support the activities become essential. Such information technology tools are meant to support the creation, processing, storing, sharing, and dissemination of knowledge that has been modified in the organization.

Fig 27: Components of tools
https://www.google.com/search?q=Components+of+tools+&tbm=isch&ved=2ahUKEwiJpcvj5sP5AhXS44UKHXz3CH0Q2-cCegQIABAA&oq=Components+of+tools+&gs_lcp=CgNpbWcQAzIGCAAQHhAIOgUIABCABDoGCAAQHhAFOgQIABAYUJANWJAN

YOIUaABwAHgAgAGOAogBmASSAQMyLTKYAQCgAQGqAQtnd3Mtd2l6LWltZ8ABAQ&sclient=img&ei=Cpf3Yon4GdLHlwT87qPoBw&bih=657&biw=1366&rlz=1C1GCEA_enZA993ZA993

Some of the tools through which knowledge is managed in the organization according to Harineeswaran, Nithyanandam and Muthu (2015) are Metadata, electronic document management, Groupware, help desk technologies, information retrieval tools, intranet, extranets, Machine learning, Mapping tools, computer-based Portals, work flow management systems, agents' technologies, data analysis, data ware housing. Ghani (2009) also noted knowledge management tools of system tools, collaboration tools, Video conferencing, database management systems, E-mail, Social network analysis, face-to-face facilitation, data warehousing, groupware and knowledge portals.

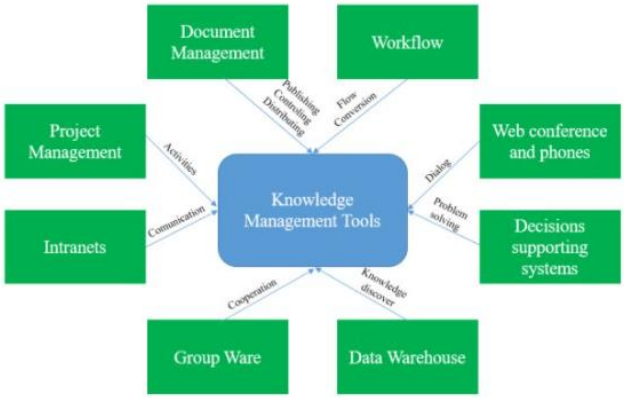

Fig 28: Knowledge management tools
https://www.google.co.za/search?q=Tools+OF+KNOWLEDGE+MANAGEMENT+++image&tbm=isch&ved=2ahUKEwiIwunXsOP2AhXfYvEDHT12DrEQ2-cCegQIABAA#imgrc=wdZM8YEtceh84M

Harineeswaran, Nithyanandam and Muthu (2015) states that knowledge management tools are used for different purposes in the organization. Some of the operations or activities which surround what knowledge management are used for are: Convera tool used for recovery software, semantic mapping back up demonstration of information, investigation, and decision making. Ontology tools allow users to create information and knowledge by collections of the different organizational knowledge bases. Employees being drivers of the organization due to the knowledge they possess, also require the support of some of the mentioned knowledge management tools. These knowledge management tools play different key roles as used by employees.

Other activities or functions mentioned by Harineeswaran, Nithyanandam, and Muthu (2015) are business intelligence, online searching, information retrieval, knowledge extraction, mining texting, interpreting, documentation and process modeling. Wiki, Web 2.0,

content repository, social software, knowledge visualization, decision support and data warehouse were other form of knowledge management tools used in the operations of activities in the organization (Ngai & Chan, 2005; Oliva & Kotabe, 2019). Students offering this module should be able to attempt using some of these knowledge management tools to enable information retrieval in metadata and intelligent knowledge transfer of information among other folks. This would enable them to advance better on how to source for information and knowledge in meeting their information needs.

The students are expected to create time to watch the link of videos to enable them have better understanding of explanations of the concept of each variable discussed in the modules. See video below.

1. https://www.youtube.com/watch?v=5odLZA1mAFY

2. https://www.youtube.com/watch?v=-BUHHPS8AXs

3. https://www.youtube.com/watch?v=bhgx-qbIMOg

2.7 Components of Knowledge Management

By components we imply the mechanisms through which knowledge is managed in the organization. Omotayo (2015) refers to knowledge, people, processes and technology as key components required in the sustainability of the organizational growth and transformation (Desouza 2011). The organization depends largely on these components to survive. For instance, there is no way activities in the organization could function on their own hence knowledge is required to act and take decision. The knowledge required could not have effect if people who are the holders of the knowledge do not also act. The other consideration are processes and technology, which comprises of policy, routines, organizational knowledge and facilities that help the individual to function if they are retired. The technology serves as enabler to the accomplishment of the goals.

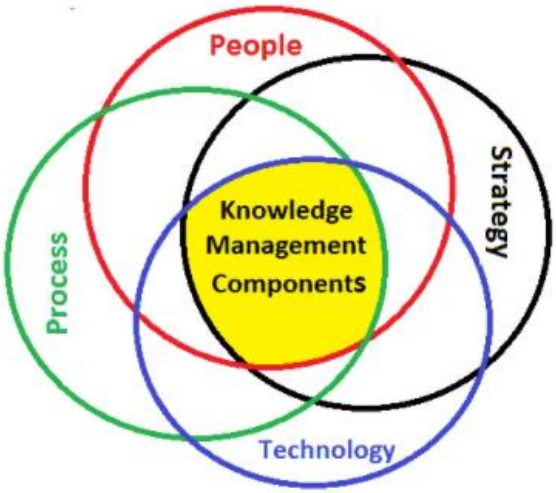

Fig 29: Knowledge management components
https://todayfounder.com/components-of-knowledge-management-best-guide/

Looking at the components mentioned, connecting people, processes, and technology together for the purpose of enhancing knowledge become essential in the organization. This made Baloh, Desouza, and Paquette (2011) allude to having the ability to manage the right knowledge, otherwise, its plans become fruitless, hence appropriating people, processes and technology together. The essence of integrating people, processes, and technology together in the organization is to collect organizational information and knowledge hidden in people, processes, routines, policy and practices.

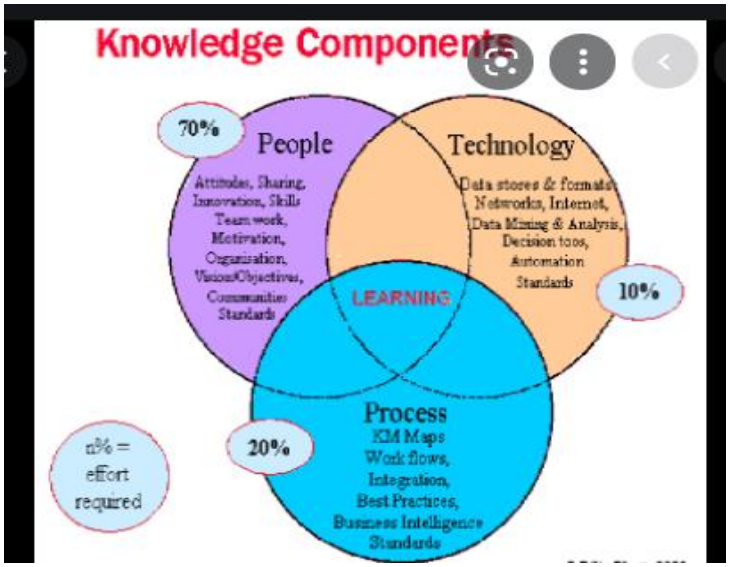

Fig 30: Knowledge management components
https://www.researchgate.net/figure/Knowledge-Management-Components-and-Sub-elements_fig3_319567412

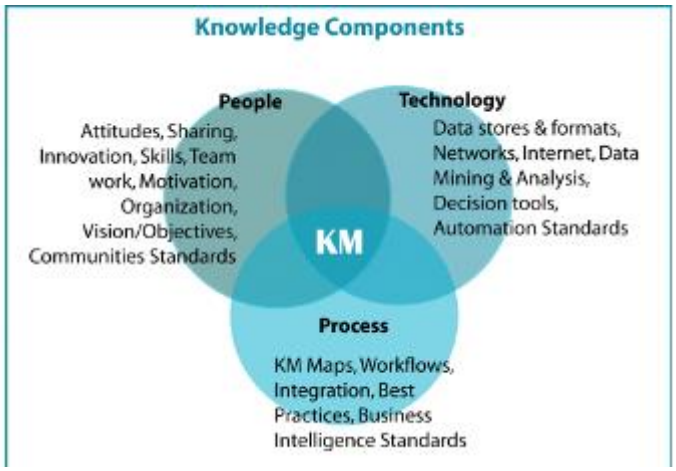

Fig 31: Details of knowledge management components
https://toolkits.knowledgesuccess.org/toolkits/km/operationalizing-km

The understanding in the above represented figure is simplified below according to Sun and Scott (2005); Baloh, Desouza, and Paquette (2011) and Desouza (2011).

(i) the process: Process in the organization is an activity supported through the enabler of people. The process is judiciously followed on the basis that the organization developed the consciousness that people would work together as team creating zeal to place knowledge sharing as top priority. Processes oversee work in the organisation and it is so serious that it cannot be undermined with regards to the operation-ability of the organisation. Consequently, KM program should first be recognized before the processes of safeguarding the position of humans and that of the machines is carried out. When the process is well followed, there is the assurance that inputs and outputs of information and knowledge resources are feasible. What the authors imply here is that, the knowledge shared among colleagues cannot just flow on its own, rather there are processes that must be followed. The reason is that the knowledge shared comprise of fluid of experiences valued in different context based on expert insight provided there is an existing framework that help knowledge workers to operates. The second consideration is people.

Fig 32: process involved in KM components
https://www.indeed.com/career-advice/career-development/design-process

(ii) People: People are the foundations through which knowledge are obtained. The capability through which humans articulate ideas resulting to productivity of work performance depends on experiences acquired over a long period. The capacities of human being is valued over several sources of knowledge. People are both creators and consumers of knowledge. People depend on individuals based on numerous sources they have also accessed on a day-to-day basis.

Fig 33: people that are involved in KM components
https://www.quickanddirtytips.com/articles/people-or-persons/

(iii) Strategy: Strategy has to do with using different approach or route by knowledge worker in arriving at a suitable solution with regards to solving the organizational and individual problem. Strategy depends on the capability of the individual to try, retry continuously before arriving at the best options. No strategy is the best, as there could be numerous

strategies to managing knowledge of the employees and that of the organization.

Fig 34: Strategy involved in KM components
https://www.b2bsustainable.com/the-comparison-of-corporate-strategy-vs-business-strategy/

(iv) Technology: Technology is a useful enabler and opening component of knowledge management plan in the organization. The advance of information and communication technologies (ICTs), has helped to accomplished greater heights in the activities of knowledge management practices where colleagues use different technological tools to collaborate and facilitate work processes among team members. Irrespective of the geographical location, knowledge could be dispersed through the support of ICTs. ICTs can also be used in the categorization of knowledge, integration, instructiveness, and communication. This has made the Internet the footstone of all knowledge works in the organization. Since the advent of technology, many knowledge works have become much easier and better resulting in meeting diverse customers 'information needs. Technology is not the primary focus of sharing knowledge in the organization, rather it is the people concerned. If the people in the organization refuses to share what they know, technologies cannot function on their own. The only possible way through which technology could be of help is when the people concerned are willing and able to use it to spread the coverage of such knowledge exchanges.

Fig 35: Technology involved in KM components
https://www.process.st/checklist/technology-essay/

Technology is a tool for advancing and supporting task in the organization. It requires adequate ability to learn and unlearn how its operations is carried out. Therefore, for undergraduate students to make the use of any technologies, such as artificial intelligence, Robotic Process Automation (RPA), Internet of Things (IoT), intelligent Apps, 5G, machine learning, Blockchain, cognitive computing. These are associated with Biotechnology, Nuclear Technology, communication technology, electronics technology, medical technology, mechanical technology and materials technology.

Knowledge management has shown to serve the organization in diverse ways. Employees rely on it as engine oil that greases the effort of task carried out on daily basis. This has made employees in remaining steadfast especially in harnessing, acquiring, storing, distributing and re-use the knowledge they possess in meeting diverse customers, and individual and organizational needs. Knowledge management has become a sinequanon in present-day libraries and information centres. The purpose of this explanation is that, there is no organization including libraries that could function without knowledge because invariably all that happens in the organization is all about managing both explicit and tacit knowledge used to drive organization activities. Although certain application technological tools have been of great support through enablers of human knowledge.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. List the various kinds of knowledge management components
2. Why do you feel the knowledge management component is of importance in the present information and knowledge economy?

2.8 Summary

This unit examined the topology, processes, techniques, tools and components of knowledge management. The explanation given in this text is based on how the variables has become usefulness for the advancement of work operations. The variables should be able to assist students to understand their studies from a broader perspective of how to handle their academic work perfectly, because knowledge encompasses knowledge revitalizations. In strengthening this unit, it could be notice that, the topology of knowledge management made us to have a clear look of the anatomy of knowledge management, where issues such as data, being raw materials not yet processed was discussed. The data later become information on the basis that, it has the quality for execution of action irrespective of the contexts, organization and individuals handling it when it has already been processed. The information when fully digested, give result to profound and better meaning of decision taken in the organization with relation to job descriptions. When certain situations become difficult to handle in the workplace considering the fluid of experience applied and no way forward, wisdom become the final alternative to user in focus hence deeper root of knowledge. A better understanding of wisdom is through its application because sometimes you tend to know more than expected only when operations of activities is in place.

Knowledge cannot be quantified because it yields to the results in wisdom. Wisdom operates within knowledge acquired over a period of time. This phenomenon gave root to the process of knowledge management where employees continue to acquire, store, distribute and re-use the knowledge they possess in meeting diverse users and organizational needs. Knowledge management processes does not work in isolation rather in different activities that could assist the organization. In order to have a more profound knowledge management processes, application of certain technique of knowledge identification, capturing, evaluating, retrieving and sharing is of utmost importance. This will help know what each employee is capable of in terms of their know-how in the organization.

Another discussion had in this unit which is of importance are knowledge management tools, and components. We were made to understand a tool means a device or instrument which could be held in someone hand and used to carry out a specific and general role, activities and functions in the organization or household. A good example of a tool is iron, hammer, scissor, needle, shovel, cutlass, a computer, a car, just to mention but a few. These tools have shown to accomplish general and specific work operations in the organizations. The tools are used by individual based on the instruction and directives given. Tools are very vital in the achievement of certain job description in the organization. It helps to enhance and facilitate much jobs which might be difficult to handle with the physical hand or mind. Tools helps to improve the knowledge of the individual especially when applying tacit type of knowledge in the execution of jobs in the organizations.

Knowledge management tools have shown to play different roles as used by employees. Some of the activities or functions which knowledge management tools could handle are online searching, information retrieval, knowledge extraction, mining texting, interpreting, documentation and process modeling. Most of the knowledge management tools used today by knowledge experts in the organizations are Wiki, Web 2.0, content repository, social software, knowledge visualization, decision support and data warehouse. These have been used in the sustainability of job operations in the organizations. In conclusion people, processes and technology have shown to be key components that cannot be undermined in the sustainability of the organizational growth and transformation. To advance students' career pursuits, there is a need to pay close attention to some of the issues discussed here because they will help pull through in their academic goals and become sustainable even while in the workplace.

2.9 Glossary

1. Technologies of artificial intelligence, Robotic Process Automation (RPA), Internet of Things (IoT), intelligent Apps, 5G, machine learning, Blockchain, cognitive computing are now part of knowledge management and libraries

2. Organizational drivers of data, information, knowledge and wisdom are crucial in the sustainability of job performance

3. The processes of knowledge management vary in context and range from acquisition, storage, distribution, and use

Self-Assessment Exercise

The students should attempt the following questions:

1. Identify the topology of knowledge management and write short notes on them?
2. What do the processes of knowledge management entail
3. Identify and discuss three (3) techniques that could be applied in knowledge management in any organization?
3. What are the various knowledge management tools and what use does it have in library and information centers operations?
4. Identify and discuss three components of knowledge management?

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2.11 Possible Answers to Self-Assessment Exercise

1. The various kinds of knowledge management components are people, technology, process and strategy

2. The knowledge management component is of importance in the present information and knowledge economy because without these there is no organization that could survive. For instance, people are the carriers and drivers of the organizational products, services, innovation and sustenance through the information and knowledge they possess. The technology support and enhance the services rendered as the employees cannot do many work or activities with their physical hands. The process entails application of guidelines, procedures and policy for which they maintain their job execution. While the strategy connotes approach for which they success is achieved in the organization. With all

UNIT 3 PRACTICES AND APPLICATION (ORGANIZATION OR BUSINESS CONTEXT) OF KNOWLEDGE MANAGEMENT

Unit Structure

3.1 Introduction

In previous unit 2, we considered topology of knowledge management, processes, techniques, tools, and components of knowledge management. These are the building blocks through which knowledge management was formed. These factors cannot be undermined for any prospective students of library and Information Science. The mentioned factors are utilized to govern the operations carried out in the organization, including libraries and information centres. In the present unit 3, we shall be looking at practices of knowledge management and its application regarding job specification of librarians and other experts in information systems. The reason behind this analogy is that, these are critical factors surrounding the discussion of knowledge management because most of all the activities in the organization comprises of managing information and knowledge of the individual and that of the organization.

3.2 Learning Outcomes

By the end of this unit, you should be able to:

- Discuss the practices of knowledge management
- Describe how knowledge management can be applied in the organization

3.3 Practices of Knowledge Management

The practices of knowledge management (PKM) has to do with putting into action what has been visualized, learned, stored and known by employees in the organizations. It means practicing what employees know in the organization through enabler of their individual tacit knowledge. Sometimes, it become difficult for employees to practice

knowledge management when they do not even understand what it entails. Drawing analogy from previous discussion made by Agrawal and Mukti (2020) knowledge management has to do with the principles of governing the techniques which experts use to meet business operations. The techniques that experts use involves knowledge initiatives, time frame, risk, expanding the scope of their task, efficiency and effectiveness and preparedness of their mind (Agrawal & Mukti, 2020).

Fig 36: Best practices in KM
https://www.google.com/search?q=best+practices+in+knowledge+management&tbm=isch&ved=2ahUKEwjxq8mQhcf5AhUrxIUKHY6vDTEQ2-cCegQIABAA&oq=Best+practices+in+Knowledge+M&gs_lcp=CgNpbWcQARgAMgQIABAYUABY8gVgiyFoAHAAeACAAesCiAGWDJIBBTItMi4zmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=hUn5YrHVAquIlwSO37aIAw&rlz=1C1GCEA_enZA993ZA993#imgrc=wpSofrCZzvMVgM

The idea behind knowledge management is to ensure that the organization through enabler of tacit and explicit knowledge could carry out different operations to (Ahammad, 2018; Jokanović, Okanović, & Lalić, 2018; Agrawal, & Mukti, 2020). The practice of knowledge management cannot be carried out if users are not sure of what to do especially applying tacit knowledge which employee possess. Since knowledge management entails the process that help individuals or employees to find, select, organize, disseminate and transfer information and knowledge in the organizations, employees need to learn how these selection, organization, dissemination and transfer of information and knowledge take place.

A better interpretation of the practices of knowledge management can be likened to what medical doctors do at the hospital, where they use their tacit type of knowledge in treating and diagnosing patients having one ailment or the other. Medical doctors use their tacit type of knowledge to internalize during when surgery is ongoing in the hospital, even though they apply some support technique of the use of technologies in their investigations and analysis of results. The understanding obtained from this analogy is that, medical doctors are given the opportunity to call for patient medical files and used the information in the files based on the complain of the patients, coupled with the tacit knowledge of the medical doctors to diagnose the symptoms to provide treatment that could be helpful to the patients.

When this has been done, the doctors would then recommend certain medications that could assist the patients in getting rid of the symptoms, or ailment in the patient body. This act could be regarded as knowledge management because all the medical doctors does is use his tacit and explicit knowledge to proffer solution to identified problem in patient body. The same applies to what happened in any other organization, where staff members use their tacit knowledge in re-organizing and finding solutions to problem or meeting needs of users on daily basis.

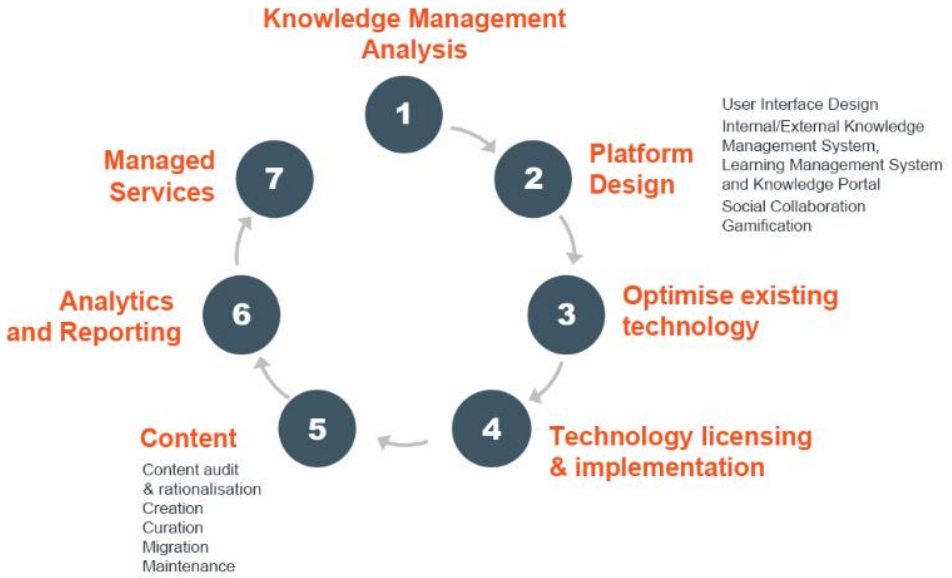

Fig 37: KM analysis through different approaches
https://www.ttec.com/asiapacific/knowledge-management

Another scenario which could be likened to what employees do when practicing knowledge management in the organization is what lawyers do in the law court. Having read different or several articles, in accordance with the stipulated law, they find the most suitable information, select, organize, and share it to support their client. The essence is to ensure they win the case before them. It is very important

for lawyers to be well informed on best approach to tackle cases that come to them, otherwise they will remain out of the market, that is, not getting clint.

To remain relevant is crucial because it will give clients the assurance of a better verdict when having a case in the law court. One of the ways through which employees practice knowledge management is assisting one another to internalize issues difficult to handle. This would help create new knowledge that could serve a better result any time they are confronted with certain a decision and not sure who to turn to in the organization. In so doing, they collect information from different sources, reorganize and share it to suit their information needs.

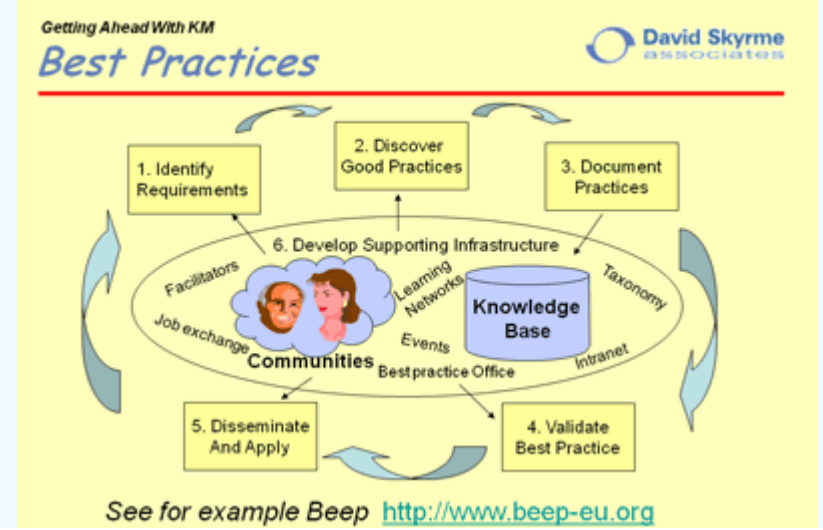

Fig 38: Dimension of KM practices
https://www.skyrme.com/kmpractices/index.htm

Knowledge management practices assist the organization in diverse ways. First, it helps individuals in the organization to learn from each other during meetings and teamwork. Second, based on aligned policy and routines decision-making becomes easy to handle. Third, the practices of knowledge management give employees the required tools to arm themselves when confronted with certain task difficult to handle. Third, there are certain dynamism which led to successful implementation of continuous knowledge sharing even though staff members were not willing to do so. Fourth, the stored knowledge in the human brain assist in the execution of task without any compulsion to do so, because the mind where the tacit dwells is ever ready to engage in discourse. Fifth, the explicit knowledge found in paper form due to continuous reading of newspapers and books has made the tacit to become much richer in terms of knowledge acquisition. This is associated with many tasks being given to employees because if you do not engage the brain with so many tasks, there is the tendency that it may be obsolete and not very active as expected. Therefore, knowledge

management practices require continuous engaging of the brain for several activities and duties. Some of the activities of knowledge management practices involves identifications, organizing of task to be carried out, storing of explicit and tacit knowledge and disseminating knowledge and information among employees.

Other activities that could result to knowledge management practices according to Agrawal and Mukti (2020) are identification of a problem, then initiate a program to solve the problem. There is also need to understand the extent and causes of the problem. When this has been done, there is need to explore the possible way out, through the scale of knowledge sharing and the result obtained from other colleagues would go a long way in finding the solution to the identified problem. Knowledge management practices helps employees to learn in the organization because to some employees who are newly recruited, they need to learn the culture, policy and practices of how operations take place. This is applicable to undergraduate students, as they are supposed to follow suit when they are newly registered for any course in the university. This would help them to adapt to the practices of activities that take place in the system.

1. https://www.youtube.com/watch?v=K-G_4ZYDinY

2. https://www.youtube.com/watch?v=2M8N0cBfgN8

3. https://www.youtube.com/watch?v=hIr6QL47DHo

Ways through which knowledge management is practiced in the organization

Fig.39: Practices of knowledge management
https://www.quandora.com/7-knowledge-management-best-practices-bring-success-2019/

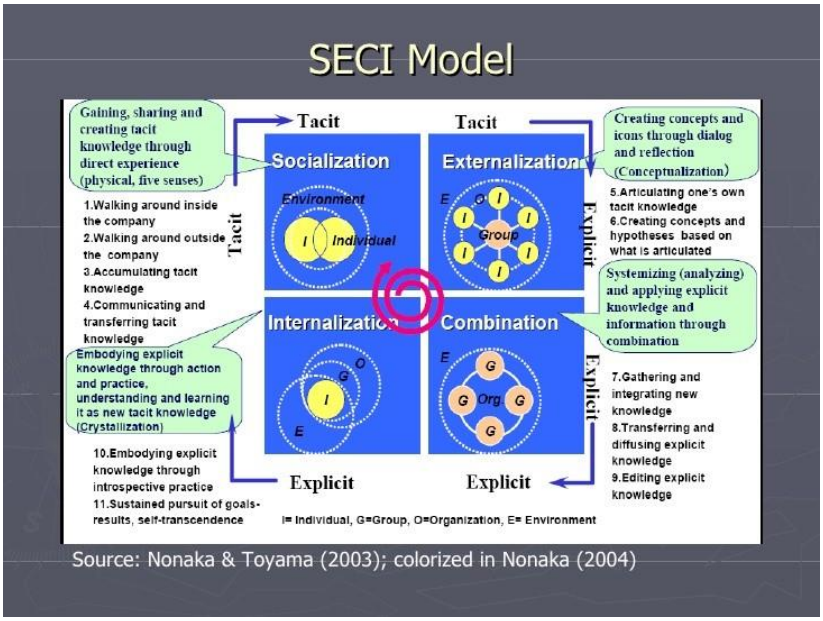

Fig.40: SECI model of knowledge management practices
https://pt.slideshare.net/hiranabe/agilejapan2010-keynote-by-ikujiro-nonaka-phronetic-leadership

Fig 40 of SECI model indicate that through the various ways of socialization, externalization, internalization and combination, the practices of knowledge management could take place among colleagues based on the job they are doing in the organization. This model proposed by Nonaka and Toyama (2003) should not be undermined when considering the practices that revolves round knowledge management among staff members.

3.4 Application of Knowledge Management

By application we mean the process of acting or responding to needs of individual or the organization. The ways through which employees act or respond to certain situation requiring their expertise, tacit and explicit knowledge is application of knowledge management in the organization (Garfield, 2018). When employees interact with one another to create a learning setting such that, they gain from each other through knowledge sharing approach we could regard it to be the application of knowledge management (Garfield, 2018). The application in question rotates round knowledge of the employees depending on what need is mostly required.

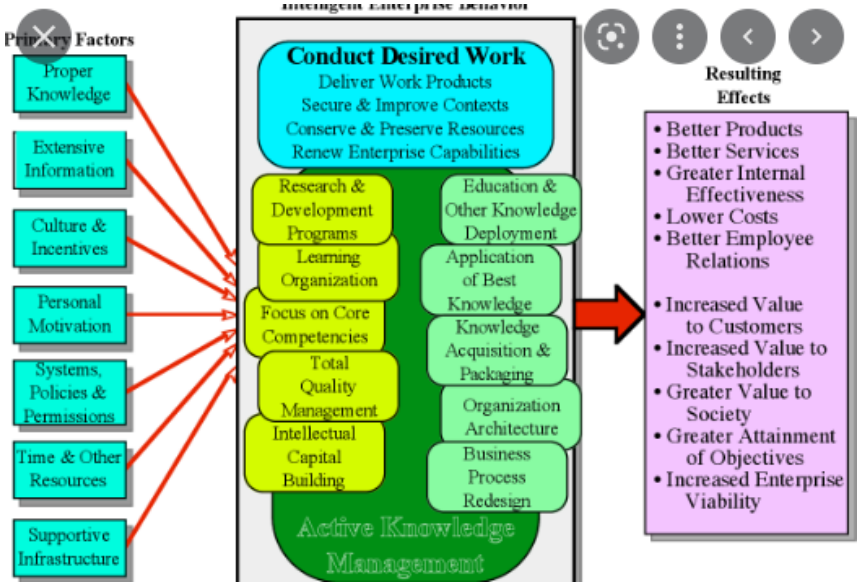

Fig 41: Application of KM
https://www.semanticscholar.org/paper/Application-of-Knowledge-Management-in-Public-Wiig/7390988d0ad5d9dbfd18633cdca8fcaaa2b2182c

The need of the organizations varies from social, economic, political, technological and routine wise. Therefore, irrespective of the clusters of information needs of the organization, it is expected that employees should at all times respond to any call no matter the circumstances surrounding their calls. The essence of the knowledge application is to enhance and transform the organization for productivity's sake. The application of knowledge management ensures that all knowledge whether tacit or explicit are well managed for better quality service delivery in the organizations. Application of knowledge management could be applied into various phases of communities of practice, methodologies, knowledge creation, knowledge capture, knowledge reuse, knowledge valuation, lessons learned and proven practices (Garfield, 2018).

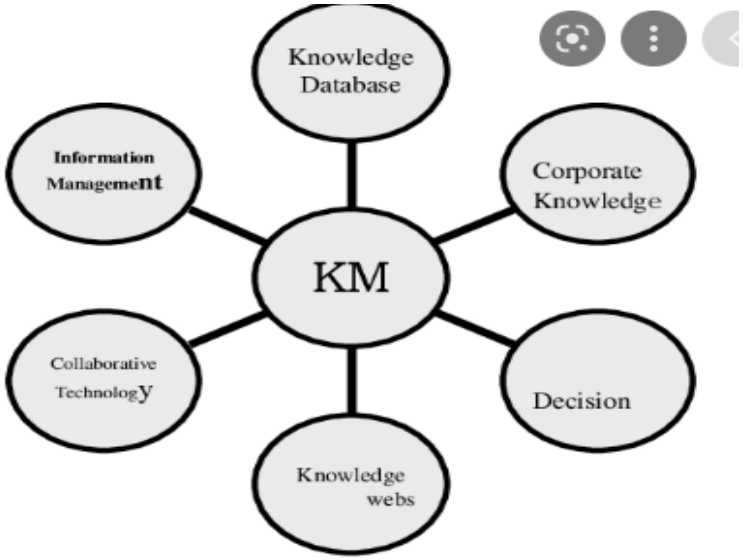

Fig 42: Application of knowledge management takes various forms. https://www.semanticscholar.org/paper/Application-of-Knowledge-Management-in-Management-Vaezi/46ac1a38a80f0d4f8391d29cd7cbeb18c5a6a0b2

Another good example through which application of knowledge management could take place are represented in the image below. In this regard, students could apply their knowledge into many things, such as study their modules, write examinations, conduct research and develop themselves more into better promising individuals that would be useful to the society and their family. The application of knowledge management cannot be overemphasized because everything that happens in the organization comprises of application of either tacit or explicit knowledge as represented in the model postulated by Nonaka and Toyoma.

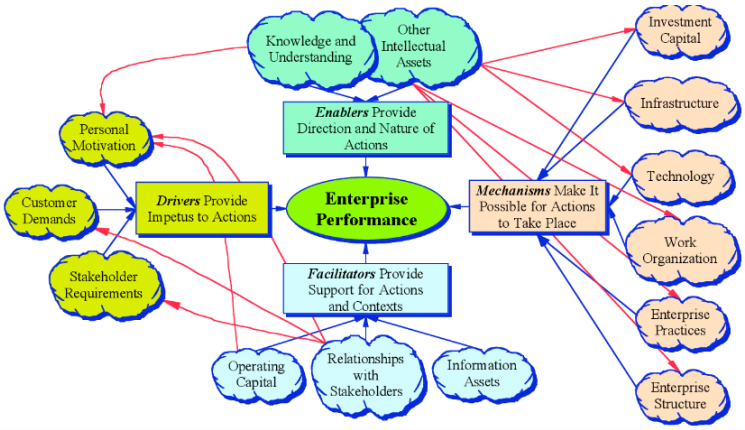

Fig 43: Ways of knowledge management application https://www.semanticscholar.org/paper/Application-of-Knowledge-Management-in-Public-Wiig/7390988d0ad5d9dbfd18633cdca8fcaaa2b2182c/figure/0

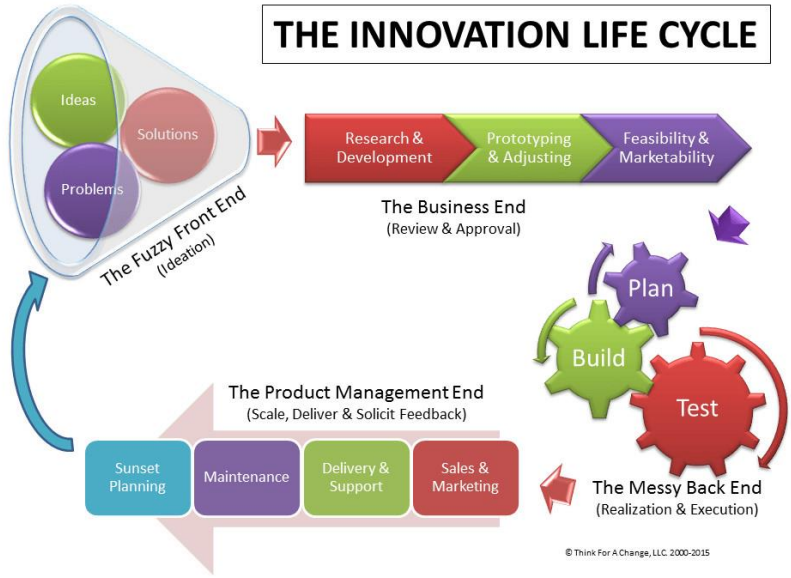

Fig.44: Ways of knowledge management application
https://www.google.com/search?q=innovation+lifwe+cycle&tbm=isch&ved=2ahUKEwjGm839jcf5AhUOKBoKHbJzBWEQ2-cCegQIABAA&oq=innovation+lifwe+cycle&gs_lcp=CgNpbWcQAzoICAAQgAQQsQM6CAgAELEDEIMBOgUIABCABDoECAAQQzoHCAAQsQMQQzoLCAAQgAQQsQMQgwE6BAgAEB46BggAEB4QBVDeC1jYNmDnQmgAcAB4AIAB_QOIAZA-kgEJMi05LjguNS4xmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=zVL5YoaBC47QaLLnlYgG&rlz=1C1GCEA_enZA993ZA993#imgrc=38Vc963UMqQdQM

Transactional	Analytical	Asset management	Process	Developmental	Innovation and Creation
Case based reasoning (CBR)	Data warehousing	Intellectual property	Total quality management	skills development	Communities of practice/ interest
Help desk applications	Data mining	Document management	Benchmarking best practices	Staff competencies	Collaboration
Customer service applications	Business intelligence	Knowledge valuation	Quality management	Learning	Discussion forums
Order entry applications	Management information systems	Knowledge repositories	Business process reengineering	Teaching	Networking
Service agent support applications	Decision support system	Content management	Process improvement	training	Multi disciplined teams

Fig 45: Application of knowledge management takes different dimension
https://www.researchgate.net/figure/Applications-of-Knowledge-Management_tbl2_284467919

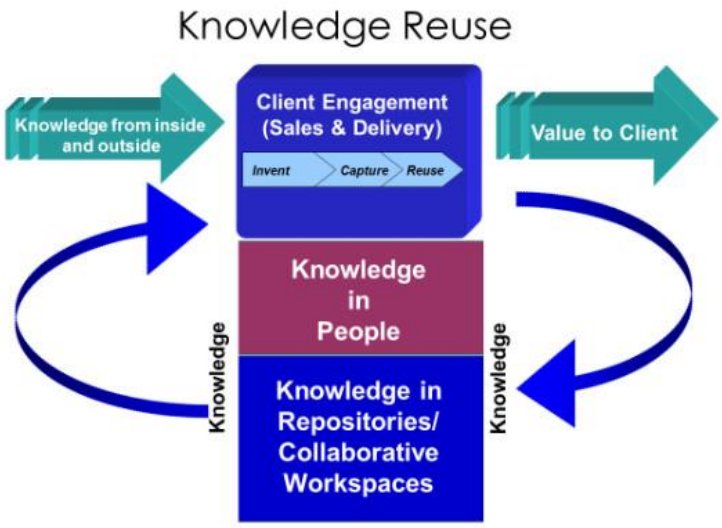

Fig 46: Ways of knowledge management application
https://stangarfield.medium.com/knowledge-reuse-process-a5ce5e96a37b

Fig 47: Collaboration as knowledge management application
https://attaconsult.com/2015/01/20/collaboration-is-everything/

Video **1. https://www.youtube.com/watch?v=SvEcTEB9ajQ**

There is no way we could substantiate what the practices and applications of knowledge management entails even if given a longer and better time. The practices and application of knowledge management among employees, of which libraries and information centers are inclusive, the factors of production which now resulted in the use of tacit and explicit knowledge by workers in the organization have made the world a better place to live in. Many companies today have flourished due to the practices of sharing uncommon knowledge which could have been difficult to harness ordinarily. Reports from different empirical studies have shown the involvement of the two variables

leading to global enterprises where teaching, learning and research activities, has infiltrated into all sectors, of health, engineering, aviation among others too numerous to mention.

3.5 Summary

The practices of knowledge management as far the organizational tasks are considered cannot be measured considering enormous activities that is ongoing on daily basis. The enormous activities have become lighter due to application of tacit knowledge and explicit knowledge, which are even more difficult for employees to practice especially if employees are not ready to open up to share what they know. The principles behind the practices of knowledge management were to eradicate risk and expand knowledge initiatives, scope of task, efficiency, effectiveness and preparedness of employees' mind.

It is interesting to note that, the practice of knowledge management become vague especially if employees do not know what to do. The reason is that, since knowledge management involves the method which individuals or employees use to find, select, organize, disseminate and transfer information and knowledge in the organizations, employees need to continue to reskill in order to learn and unlearn how this selection, organization, dissemination, and transfer of information and knowledge take place. A better interpretation of the practices of knowledge management could be attributed to what the medical doctors do at the hospital, where they use their tacit type of knowledge in treating and diagnosing patients having one ailment or the other.

Medical doctors use their tacit type of knowledge to assume when surgery is ongoing in the hospital, even though they apply some techniques of the use of technologies in their investigations and analysis of results. The understanding here is that medical doctors has the opportunity to interact with patients and their files, which is similar to what employees do in the organization applying certain procedure and policy is discharging their roles. In the same vein, the application of knowledge management ensures that all knowledge of tacit and explicit are well managed for better quality service delivery in the organizations. The rationale of application of knowledge management is to ensure that, communities of practice, methodologies, knowledge creation, knowledge capture, knowledge reuse, knowledge valuation, lessons learned and proven practices are well articulated in the organization.

3.6 Glossary

1. Storytelling, teamwork is ways knowledge management could be applied in the organization
2. SECI model of socialization, externalization, internalization and combination, are best practices of knowledge management

Self–Assignment Exercise

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. What other practices do you think knowledge management could be inculcated
2. Has the KM practices improved organizational performance among colleagues?

3.7 References/Further Readings

Garfield, S. (2018). What are the applications of knowledge management?https://stangarfield.medium.com/what-are-the-applications-of-knowledge-management-fcc97da622d4

Igbinovia, M. O. and Ikenwe, I. J (2017). ‘‘Knowledge Management: Processes and Systems’’, *Journal of Information and Knowledge Management*, 8 (3) Pg 26 - 38 ISSN: 2141 – 4297, https://www.ajol.info/index.php/iijikm/article/view/167179

3.8 Possible Answers to Self-Assessment Exercise

1. Considering the diversity of knowledge management discipline, it can be inculcated into other fields like law, engineering, medicine, music among others. The reason is that, what makes it interesting is the tacit and explicit knowledge utilized for every activity in each of these field of study mentioned.

2. KM practices has improved organizational performance among colleagues because intuitive knowledge of individuals is tapped and shared among colleagues and when there are challenges, colleagues brainstorm to see what the problem is and quickly resolve it.

MODULE 2 KNOWLEDGE SHARING IN LIBRARIES

UNIT 1 DEFINITION, OBJECTIVES, AND METHODS OF KNOWLEDGE SHARING

Unit Structure

1.1 Introduction

In the previous unit 3, we considered practices of knowledge management and application of knowledge management with regards to job specification among employees, librarians and other information systems experts.

In the present module 2, unit 1, we shall be looking at definition of knowledge sharing, its objectives and methods through which knowledge sharing take place. Knowledge sharing has become a key factor where employees express their thought and understanding based on the years of experiences, knowledge, skills and attitude towards their job description. Organizations have shown to benefit from employees sharing what they know best and competing over their competitors or counterpart.

1.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Define knowledge sharing

- Explain the objectives of knowledge sharing
- Identify and discuss the methods of knowledge sharing

1.3 Definition of Knowledge Sharing

Knowledge sharing is not a new phenomenon globally, although still new to some developing nations of the world and individuals working in certain organizations, hence the need for this discussion. Empirical studies have substantiated the definition of knowledge sharing and why it is imperative for individuals and organizations to employ its practices. Even the term knowledge sharing is now common among individuals and organizations, its practices are rigorous to imbibed.

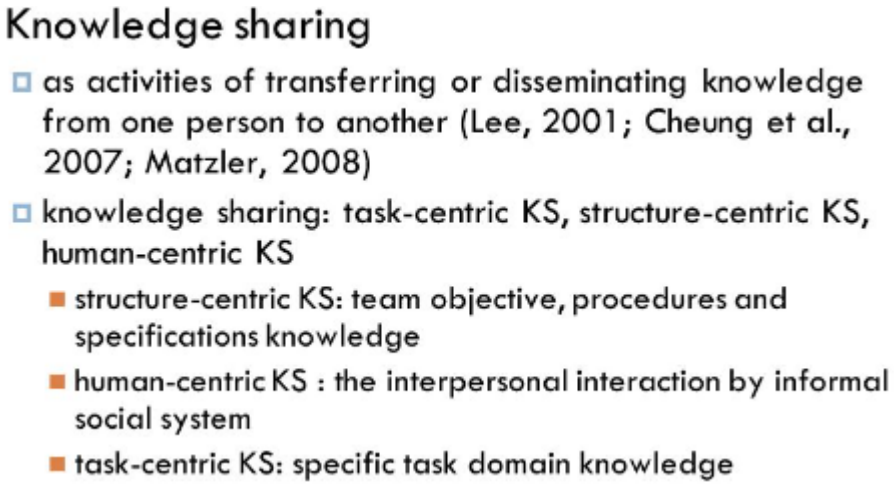

Fig 48: Knowledge sharing
https://slideplayer.com/slide/8331154/

Knowledge sharing could be seen as a common entity for people (Ipe, 2003) but looks intricate and complicated when addressed. For this reason, it is expected that students should have different reasons for which they would like to share their knowledge with each other, especially during the cause of their studies and research activities.

Fig 49: Goal/approach of Knowledge sharing
https://slideplayer.com/slide/4771025/

The understanding surrounding knowledge sharing implies that certain processes are involved especially since it is between two or more people, where the individual ideas are converted to suit the purpose for which they get involved. Individuals share their knowledge to meet different information needs. Without this understanding, knowledge sharing cannot hold effect among people in the organization. Some of the purposes for which people share knowledge is for communication with two or more people, advancement of work performance, personal development, team work, training and support for others.

Fig 50: Another dimension of Knowledge sharing
https://www.google.com/search?q=concept+of++knowledge+sharing&tbm=isch&ved=2ahUKEwiap5a3k8f5AhUNxhoKHV0-CzQQ2-

cCegQIABAA&oq=concept+of++knowledge+sharing&gs_lcp=CgNpbWcQAzIECAAQGDoECAAQQzoFCAAQgAQ6BggAEB4QBzoICAAQHhAIEAc6BggAEB4QCFDYC1iXQWCxRGgAcAB4AIABmwOIAbkfkgEHMi03LjUuMZgBAKABAaoBC2d3cy13aXotaW1nwAEB&sclient=img&ei=hFj5YprVBY2Ma938rKAD&bih=597&biw=1242&rlz=1C1GCEA_enZA993ZA993

Ipe (2003) notes that the converted knowledge of one individual could form another new knowledge which could be used to solve certain problem in organizations. Knowledge sharing has shown to assist individual with different task because in the cause of sharing (Cummings, 2004), those concerned must have gained from one another the knowledge they needed at that point in time. It could be envisaged that knowledge sharing lead to collaboration with others to solve difficulties, advance innovative ideas, and plan the processes of work activities (Cummings, 2004).

Previous studies by Cummings (2004); Janz and Prasarnphanich, (2003) and Gray (2001) were of the view that, certain element that could encourage knowledge sharing among people in the organization and these are: contextualization, motivation, core factors, mutuality, relationship, training programs, team works, technology-based systems, social networks, and culture. These factors were considered due to their effect on deploying the individual to unveil what they have in their mind.

The expectation is that when knowledge is shared, especially transitions from tacit to form explicit among people based on what they thought in their minds. The explicit being that it is rooted in organizational procedures and norms, helps to advance work performance carried out since the procedures and policy are followed. The recipient is expected to gain more knowledge since the host of the carrier does know more than he/she thought they know. These do not unravel until someone is engaged in discourse and conversations/interactions with people. But through the effort and support of different technological devices many of this knowledge could be harnessed and stored.

Fig 51: KS brings creativity among colleagues
https://knowledge.insead.edu/leadership-organisations/the-power-of-knowledge-sharing-3496

Motivation and organizational culture have shown to have a lot of influence when it comes to knowledge sharing among people in the organization, because even if the individual does not want to share what they know, motivation from external factors, either the boss or friends could propel the individual to share. There are scenario where organizational culture forces individual to share what they are not supposed to shared and because they must respond to certain work activities, what they know are revealed. Bellefroid (2012) is of the view that codification is very important when it comes to knowledge sharing, otherwise it would be difficult to attest to what has been shared considering languages barriers and the recipient of the knowledge. Bellefroid (2012) consider storage of the shared knowledge so that it will not get lost hence technological devices is recommended.

Another intriguing point raised by Gaál, Szabó, Obermayer-Kovács & Csepregi (2015) was societal constituent and personalization which has relationship with the way people unite and interconnect with one another. when codification of what the employee knows has taken effect, through their work performance, personalization is ushered in to see how the individual is going to apply their knowledge in the actualization of the task given to them. When these are done, social networks become the end point through which the knowledge circulates within the organization among experts. This is usually not common with those are not members of the organization. Knowledge sharing is very crucial in every organization irrespective of its type and context. The effort put in place in sharing what employees has help to advance competitive advantage over other competitors (Gaál, Szabó, Obermayer-Kovács & Csepregi, 2015).

1.4 Objectives of Knowledge Sharing

Knowledge sharing has become so crucial that it differently should serve a purpose hence this segment of the objectives of knowledge sharing among colleagues of different classes in libraries and information centres and other related corporate organizations. Stringer (2020) refers to what knowledge sharing is capable of doing among individuals in their work performance and personal development. Stringer (2020) notes that when knowledge is shared, it would enhance balancing better productivity on a continuous basis. The reason is that, the knowledge shared was based on cooperation and collective effort among employees.

Another remark made by Postolache (2017) regarding the objectives of knowledge sharing in the organizations are:

- Organizational problems are solved based on shared tacit and explicit knowledge
- Shared knowledge is used by employees to carry out their roles and responsibilities
- Enhanced and better decision made is through uncommon shared knowledge of employees
- There is overhauling of the systems through shared knowledge
- There is stimulation and application of innovative transformation in the organization
- There is good result based on customers satisfaction of their information needs through findings solution to identified problem of customers
- There is reduction of effort and cost due to application of know-how of employees
- There is reliance with one another due to openness and cooperation of employees
- Everybody works together for one purposes and goal even they might not like each other

According to Gaál, Szabó, Obermayer-Kovács N and Csepregi A. (2015), social media has facilitated and promoted knowledge sharing in diverse ways such that employees do not need to struggle to look for information and knowledge when the need arises. Many shared information and knowledge are now on open space of cloud computing where they could be harvested without much stress by employees and organizations. The understanding surrounding the objectives of knowledge sharing is that it would help students irrespective of their various level of study to support each other in sharing what they have been taught. By this, it is expected that they would excel in their academic progression.

Gaudioso (2020) alludes to the following elements of invention and development, engagement, alignment of work activities, access to quick thinking, speedy delivery of timeous job performance, easy and fast communication among colleagues. There is also a clear indication that the shared knowledge would help to unveil constraints encountered by employees and possibly students studying towards their degree qualifications. Another important factor according to Gaudioso (2020) regarding the objectives of knowledge sharing is that it gives employees assurance of the procedures and processes required in carrying out job descriptions in the organizations.

1.5 Methods of Knowledge Sharing

By methods of knowledge sharing, we imply ways through which knowledge could be disseminated to others who need it. The understanding of this segment regarding methods of knowledge sharing indicates that there are various ways or methods through which knowledge could be shared among staff members.

Chau, Maurer & Melnik (2003) assert that some of the methods through which knowledge sharing could be carried out are storytelling, mentoring, coaching, and action reviews. These have become so crucial that individuals could learn from each other.

Another view made by Fernie, Green, Weller, and Newcombe (2003) regarding the methods of knowledge sharing is that, it varies from one individual to another and from one context to the other. It could be envisaged that the purpose might differ too, as some individuals do not want to share what they know with others. In this regard, the manager of the organization based on the organizational culture could instruct people to work together as team members and in that process, they have no choice but to contribute their portion as a way of sharing what they know. There are some essential and hidden ideas which unveil in that process.

The approach that the manager or boss of the organization might adopt could differ considering factors of seniority and policy as a way to transform the organization. The method adopted by any individual does not really matter, provided the purpose of carrying out such practices is achieved (Fernie, Green, Weller, and Newcombe (2003). Therefore, as student continue to pursue their academic desire, the need to adopt and apply certain method of sharing knowledge becomes important as it would help to support them throughout their stay at the higher institution of learning.
https://www.youtube.com/watch?v=0N-p0NirwCY

Fig 52: Storytelling as ways of sharing knowledge in the organization

http://storytellinginorganizations.com/

This figure represents a practical story telling method of sharing knowledge among colleagues.

https://www.youtube.com/watch?v=v3VCFuxz0l8

https://www.youtube.com/watch?v=2M8N0cBfgN8

https://www.youtube.com/watch?v=_JKLdPbABIQ

It was established in this segment that knowledge sharing has become a panacea to meeting organizational needs. This results when employees share their thoughts and ideas to solve an organizational problem. The expectation of this unit is to encourage and promote continuous knowledge sharing among students and colleagues in the organization. We could establish that the practices and application of knowledge sharing among employees are difficult especially when people who work in the organization are from different backgrounds, races, religions, and belief systems. Nonetheless, when there is mutual understanding among colleagues, it is expected that knowledge sharing could be attained. The report of the unit expects that no matter the circumstances surrounding what happens, students and colleagues working in the different sectors should be innovative in their thoughts to support one another through knowledge-sharing practices.

1.6 Summary

The practices surrounding knowledge sharing, its objectives and methods of sharing cannot be overemphasized. Knowledge sharing has become a global phenomenon that cannot be avoided in the organization. This implies that for individuals, organization and any economy to grow they need to use their intellectual capital to grow and sustain the activities of continuous buying and selling where information and knowledge are required for the production of good and services. Empirical evidence established that, there is no living entity in this world that could survive on his/her without establishing the sharing of their personal knowledge with others. Therefore, in this regard knowledge sharing should be a normal culture among individual in all works of life.

The reason that necessitates application of this concept of knowledge sharing in this unit is that, it would assist students irrespective of their background to share together what they have learnt, such that, advancing in their studies would not be a difficult thing for them. Without

knowledge sharing students would not know where they are wrong or right, especially having to do with critical issues under discourse in their studies. The principles behind the practices of knowledge management are for individuals to share their knowledge to enhance their personal and organizational growth. The desire to share what you know would enrich and eradicate uncertainties and increase knowledge initiatives, for task efficiency and effectiveness.

1.7 Glossary

1. Knowledge sharing are the apparatus for strengthening transformation and growth in the organization
2. SECI model of socialization, externalization, internalization and combination, are best practices of knowledge management

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. How do you see knowledge sharing in the organization.
2. In what ways has knowledge sharing supported you as a student in your career pursuit at the National Open University of Nigeria?

Assignment File

1. Discuss what you understand about knowledge sharing in the context of library and information centres?
2. Identify and write short notes on five (5) objectives of knowledge sharing
3. What are the various methods through which knowledge sharing could be carried out among employees in library and information centres?

1.8 References/Further Reading

Chau, T., Maurer, F., & Melnik, G. (2003, June). Knowledge sharing: Agile methods vs. tayloristic methods. In *WET ICE 2003. Proceedings. Twelfth IEEE International Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises, 2003.* (302-307). IEEE. https://www.semanticscholar.org/paper/Knowledge-sharing%3A-agile-methods-vs.-Tayloristic-Chau-Maurer/26cc18a8fca7dfbc7563a7605fd698416be64feb

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1.9 Possible Answers to Self-Assessment Exercise

1. Knowledge sharing is very important and it is every day activities in the organization. The moment employees enter into the office in the morning to when they close for the day, they share knowledge with one another irrespective of their different routines and positions occupied. Through this act of sharing their tacit knowledge and consultation they interact by way of gaining and renewing what they already know to unknown.

2. Knowledge sharing has supported students in diverse ways even in their career pursuit at the National Open University of Nigeria. The ways differ in their interactions with fellow students, during group discussion and attending classes, engaging with their supervisor in research project work among other factors. The extent to which students share their knowledge with one another cannot be quantified especially in this era of digital technologies where diverse technological tools facilitate such practices.

UNIT 2 TECHNIQUES (CAPTURING/ACQUIRING, ORGANISING, DISTRIBUTING) AND TOOLS OF KNOWLEDGE SHARING

Unit Structure

2.1 Introduction

In the previous module 2, unit 1, we considered the definition of knowledge sharing, objectives and methods of knowledge sharing among employees in the organizations. The need for this discussion becomes imperatives considering the nature of work performance requiring infusing diverse skills and knowledge of employees to transform the workplace. The implication of this analogy is that it would help students to deepen their thoughts and imagination on application of sharing what they knowledge in order to acquire new knowledge in their academic pursuit.

In the present module 2, unit 2, we shall be looking at the techniques and tools used in knowledge sharing. Knowledge sharing is a factor that enhances production of goods and services in any corporate world. It has become a useful tool through which every individual could grow and become independent in the organization, as such, the need to emulate sharing what we know to acquire new knowledge become essential. On this basis organizations should encourage the practices of knowledge sharing among employees as it has a lot of benefits towards organizational growth and transformation and becoming globally competitive with your competitors sharing what they know best and competing over their competitors or counterpart.

2.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Explain the techniques of knowledge sharing
- Discuss how the various knowledge sharing tools are used in different platform

2.3 Techniques of Knowledge Sharing

By techniques we imply strategies through which knowledge sharing could be employed. Techniques vary from one individual to another and organization to another because the technique that might work best for one individual might not be the same that could work best for another individual. Navimipour and Charband (2016) note that a comprehensive and systematic experiences among senior colleagues is very important technique used to share knowledge.

The reason is that, this class of individuals has a lot of exposition and knowledge to share based on the number of years they have work in the organization. Another remark made by Razzak and Ahmed (2014) refer to distributed agile projects which employees are involved in. With these in mind, they share what they know with each other as a team member ensuring that they support each other till the project is completed. Irrespective of the challenges faced but because the team is working together, the project is expected to be completed. This technique is such a unique one as everyone is involved in sharing what they know best and they do not work in isolation.

Fig 53: Methods of Knowledge Sharing
https://www.thecloudtutorial.com/knowledge-sharing-methods/

Another point raised which is also very useful and crucial in the present information and knowledge economy is the one by Mayfield (2010) which relates to where tacit knowledge is shared among colleagues to support programs for personal development such as reward programs, cultural influence in the organization, mentoring, group meeting, workshop and seminar, and international collaboration. This program is believed to equip colleagues, especially by sharing professional ethics and value-added information on how best to do their jobs and render services.

The value placed on some of these techniques is crucial because most of the time, facilitators and consultants are invited to come and speak and their quality and experiences are worth sharing with one another. The feedback obtained from these techniques of sharing knowledge has helped colleagues in diverse ways, especially in areas where they are having difficulty with their work practices. It is therefore important that students should emulate these types of programmes, especially with the ones outside their school environment. It is believed that when these techniques are judiciously applied it would enhance and broaden student's horizon and career pursuit globally.

Fengjie, Fei and Xin (2004) allude different application of management theories which is based on competition among colleagues. The essence of this approach is that when colleagues compete it is expected that their best would be provided given the fact that certain attributes or benefits is attached (Fengjie, Fei & Xin (2004). Khan and Vorley (2017) were of the view that the idea of capturing, organizing and distributing could be another form through which knowledge are shared among colleagues in the organization. Most of the activities of work performance come in this diverse form. The form of technique indicate that what is not captured cannot be shared and what is not organized will also be difficult to share as well. Same with distributing because what has been captured from individuals and or through the system could only be validated, organized, and distributed among people for the purpose of use to meet organizational needs.

Fig 54: Increase KS in the organization
https://www.thecloudtutorial.com/knowledge-sharing-methods/

2.4 Tools of Knowledge Sharing

Tools are very important in any task that needs to be accomplished. The term tools could be regarded as an instrument that could be held and used to carry out specific and general functions in the organization.

Although several tools exist worldwide. For the purpose of this segment and unit, we shall be considering the tools for knowledge sharing and this comprises of the following

Tools have been shown to improve the knowledge-sharing practices among individuals, especially when applying the tacit type of knowledge in the execution of jobs in the organization. The rationale of the use of tools in knowledge sharing would assist students in a diverse way, especially using tools such as the computer system, pen, ruler, marker, and drawing board to support their teaching and learning and research interface in the university.

Craig (2015) establishes that there are various types of tools that can be used for the sharing of knowledge in the organization. This depends on the type of knowledge that needs to be shared and its purpose. The knowledge mostly shared among individuals is tacit and explicit dues to the value attached and the tasks that require accomplishment. Some of the tools mentioned which could be used according to Craig (2015) are intranet and extranet normally used within the organization for interaction and communications. The intranet is very useful because it serves as a social platform for service delivery within and outside the organization.

Most of the communications that take place inside organizations today use mostly the intranet and extranet. There were other types of tools used for knowledge sharing today and they comprise collaborative online applications technologies (Bowley, 2009), web-based tools (Storey et al, 2014), web 2.0 (O'Reilly & Battelle, 2009), social networking tools (Storey et al, 2010); Blogs, SlideShare, Skype, Google Docs, Facebook, LinkedIn, YouTube, and video sharing (Carnagey, Anderson & Bartholow, 2007; Bowley, 2009; Storey et al, 2010; Vuori, 2011; Jalonen, 2001; Kaplan and Haenlain, 2010; Denyer et al, 2011; Kietzmann et al, 2011; Fournier and Avery, 2011).

Fig 55: KM Tools and Techniques
https://monday.com/blog/monday-workdocs/knowledge-management-tools

Some other tools which could be used for knowledge sharing according to Jalonen, (2014) are google drive, cage, Mash-ups, Microsoft one drive, zoho, slack, concept board, momentum, Wikis, groupware/shared workspaces. The various types of tools mentioned which are now used for knowledge sharing offer opportunities of participation, socialization, and accountability with colleagues based on the connection established (Bonson and Flores, 2011; Postman, 2009; Kaplan and Haenlain, 2010; Denyer et al, 2011; Kietzmann et al, 2011; Fournier and Avery, 2011). The expectation of this segment in the unit is for students studying towards their degree in library and information science and other related courses/program should endeavour to familiarize themselves with the use of some of these tools especially sharing their knowledge with their fellow students and friends.

In this unit, it was established that different techniques relate to different purposes of sharing knowledge among colleagues. The essence of applying some of the identified techniques in this unit is to meet different organizational needs. It could be seen that some of the techniques vary from one context to another and organizations because organizations have or apply different goals in order to have diverse results as well. It was also found that the sharing of knowledge has been made easier through application of different tools of intranet, extranet, collaborative online applications technologies, web-based tools, web 2.0, social networking tools, Blogs, SlideShare, Skype, Google Docs, Facebook, LinkedIn, YouTube, and video sharing. These have support individual in their personal desires to that of organizational growth thus

resulting to transformation and ease of access and quality service delivery. With this in mind, users of libraries in present information and knowledge economy and other corporate organization do not need to struggle to reach out to buying of products and offer services due to the use of some of these tools globally. Students are encouraged to practice the use of these tools to market and share information and knowledge among their folks.

2.5 Summary

The observation towards the application of the techniques discussed in this unit and tools show that certain performance is required in order to achieve the goal of this unit. The understanding which surrounds the application of the technique of knowledge sharing and tools used for the same sharing cannot be quantified due to the evolving nature of activities of the two variables. The value positioned towards the time consciousness, facilitators, consultants, quality assurance, and experiences are worth more than what they were supposed to do for the individual in sharing what they know to enhance their job descriptions. As techniques of personal development which include reward programs, cultural influence, mentoring, group meetings, workshops and seminars, and international collaboration differ within and between the organizations, so the tools used for sharing individual and organization knowledge. The reason is that, these are meant to serve different purposes and programs in the organization, thus professional ethics and value on the staff members.

2.6 Glossary

1. Tools are important in accomplishment of task in the organization and they vary with job description

2. Techniques are the act of brainstorming applied by employee in ensuring job descriptions are harness and delivered.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. How can some of the identified knowledge sharing tools be used for academic purposes at the National Open University of Nigeria?
2. Why is the knowledge of the use of the knowledge sharing tools important to student academic pursuit

2.7 Tutor-Marked Assignment

1. Discuss some of the techniques that could be used in understanding and applying knowledge sharing in the context of libraries and information centres?
2. Identify and discuss the various tools of knowledge sharing that you are most comfortable with in this unit?

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2.9 Possible Answers to Self-Assessment Exercise

1. Some of the identified knowledge sharing tools such as groupware, data warehouse, intranet, document management, decision support systems, work flow, can be used for academic purposes of capturing information and data, storage of your module, sharing of information and data with your fellow student, network/communication with friends within and outside and interact with supervisor at the National Open University of Nigeria. The capacity of the tools is such that, it can accommodate large volume of information.

2. The knowledge of the use of knowledge sharing tools is important to students' academic pursuit because it will help them to navigate in the ambiance of that environment. Basic and advance knowledge and skills of ICTs is crucial in order to use any of the mentioned knowledge sharing tools for academic purposes.

UNIT 3 IMPLICATIONS OF KNOWLEDGE SHARING IN LIBRARIES

Unit Structure

3.1 Introduction

In the previous module 2, unit 2, we considered techniques and tools used in knowledge sharing. The reason was due to how useful some of these techniques and tools have played in facilitating knowledge sharing is a factor of production of goods and services in the context of corporate organization. In present module 2, unit 3, we shall be considering the implication of knowledge sharing among employees in the organization.

3.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Explain the implications of knowledge sharing
- Discuss how knowledge sharing are used to foster transformation among staff members

3.3 Implication of Knowledge Sharing in Libraries

By implications we refer to the influence or impact which knowledge sharing could have on libraries and information centres and possibly the staff members willing to share their knowledge with one another. Knowledge sharing as a concept resonated from the broad field of knowledge management and due to how important knowledge management is to organization, colleagues have no choice other than to share their knowledge to improve job performance. The implications of knowledge sharing vary in context and content. Gregson, Brownlee, Playforth and Bimbe (2015) indicate that knowledge sharing irrespective of the organization is believed to enhance creativity, learning and work performance.

Gregson, Brownlee, Playforth and Bimbe (2015) explained that when colleagues share what they know together, certain uncertainty which they are not sure of are resolved. The essence of the creativity, learning, and work performance resulting from sharing knowledge was to bring about the infusion of all their tacit knowledge to form new knowledge.

The implication of knowledge sharing brings impact on climate change on the environment and how things are handled in the economy. It has also brought changes to societal and individual career growth in the organizations. Lam, Nguyen, Le, and Tran (2021) indicates that knowledge sharing gave credence to building collective knowledge and collaborative effort of colleagues, such that they would accomplish many tasks in the organization. Another factor envisages as stipulated by Lam, Nguyen, Le, and Tran (2021) is that it brings a better understanding of how to handle things among people. This implies that through community effort and learning culture that exists among colleagues in the organization, there is the creation of better knowledge retention practices leading to why to want to share. Through these knowledge retention practice, people, connect to one another unknowingly to them. Another fact is the sense of belonging seen among the staff members. This sense of belonging shows they live together as one person in the same family.

Note that, when looking at the implications of knowledge sharing, its quantification cannot be exhausted because what happens at that point in time is transferring tacit knowledge from one individual to another (Ogiela, 2015). The fact that the transferred knowledge is undocumented, you cannot tell the extent to which it is exhausted because staff members continue to discuss it to infinity. Interestingly, when this discussion is ongoing, salient words are shared which is believed not to come out easily if colleagues are on their own. The salient point raised or words heard when the discussion is ongoing or knowledge shared are what is considered and used to solve a critical problem which could have been difficult to handled ordinary. The shared knowledge result to increased productivity, efficiency and effectiveness of jobs performance.

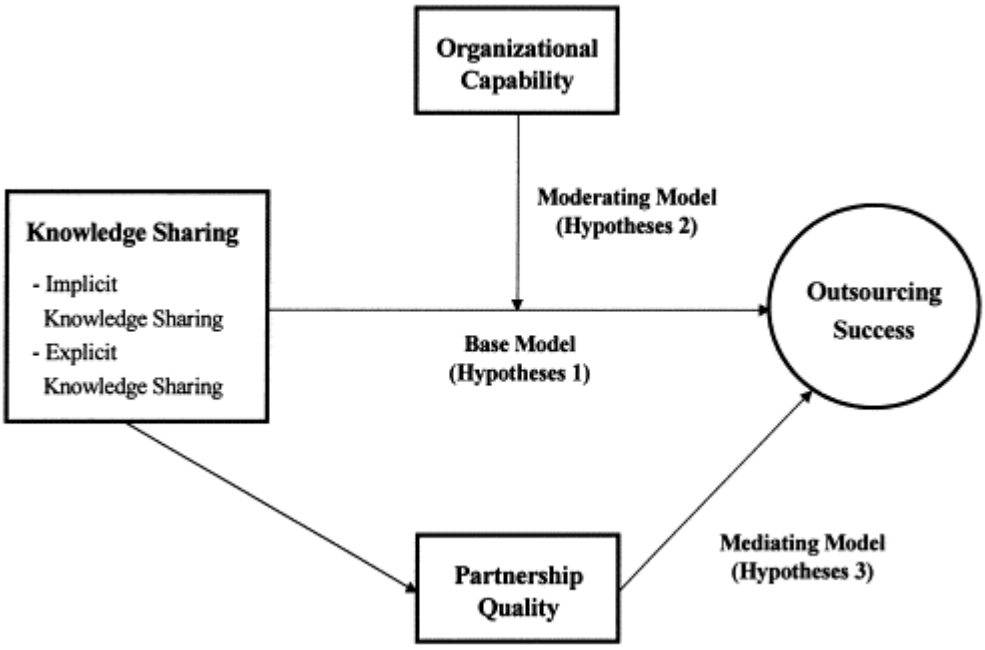

Fig 56: Implication of Knowledge Sharing (Jae-Nam Lee, 2001) https://www.sciencedirect.com/science/article/abs/pii/S0378720600000744?via%3Dihub

Gregson, Brownlee, Playforth and Bimbe (2015) allude to increase professional development of librarians in most academic library services in Nigerian universities. This was on the basis that librarians choose to share and work together as team members. Due to working together as team members, collaboration is form among staff members even though it was not part of their plan initially. This implies that, libraries being knowledge mediators should work together and lead by example to form encouragement to other staff members such that inclusivity is ensured in the organization. Knowledge sharing has brought about using different approaches to solving organizational problems and discoverability of what colleagues are capable of doing and having exposition of known to unknown things in the organization.

Hosseini and Hashempour (2012) refers to the use of Web 2.0 tools for promoting and sharing knowledge among librarians in university libraries. Most technological tools have begun to pave way for the support of knowledge sharing such that, even while librarians are in different geographical region, they could still reach each other through this Web 2.0 tools. The use of Web 2.0 tools and other related digital tools are new innovation in libraries today. Other points which could be considered in this regard towards implications of knowledge sharing according to El Harbi, Anderson and Amamou (2011) and Sitlington (2012) is access to each staff member, restructuring, organizational efficacy, efficiency and effectiveness of work performance, networking, attribution of knowledge initiatives, among other factors has already

been established among staff members in the organization. In this regard, students should not undermine the implication of knowledge sharing as its attributes are unquantifiable in the present information and knowledge economy.

The implications of knowledge sharing cut across diverse context, organizations, climate change, how things are done, and the economy. The reason that necessitates this is that changes have evolved in society where human beings are involved and there is no way individual could grow in their career progression when they do not share knowledge in the organizations. This affords building collective knowledge that leads to collaborative effort of colleagues based on the accomplishment of many tasks in the organization. Therefore, as people continue to understand each other better, the culture of knowledge sharing is cultivated in the organization and society where we found ourselves.

3.4 Summary

The observation had towards the implication of knowledge sharing has brought a lot of impact to climate change, societal and individual career growth in the organizations. When people share their knowledge together, it is expected that the collective and collaborative effort of colleagues are ensured. Knowledge sharing brings knowledge retention practices where people connect with one another even when it is not planed. The implications of knowledge sharing leads to timeous transfer of tacit knowledge from one individual to another. Interestingly, outstanding words shared leads to accountability and solving critical problem which could have been difficult to handled ordinary.

3.5 Glossary

1. Knowledge sharing has diverse implication but its practices are important in the organization as its user growth and transformation no matter the circumstances
2. Individual and environment serves as factor to climate change on how knowledge sharing could be sustained

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. How will the implication of shared knowledge curb uncertainties in the organizations?
2. Has knowledge sharing be sustained among staff members?

Assignment File

1. Discuss the implications of knowledge sharing in the context of libraries and information centres?
2. who are the main people involved in knowledge sharing in organization?

3.6 References/Further Reading

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3.7 Possible Answers to Self-Assessment Exercise

1. The implication of shared knowledge is believed to curb uncertainties in the organizations because what each employee possess differs and by way of brainstorming and tackling the problem together such challenges is resolved. Uncertainties are bound to be in any organization but what is most interesting is ability to resolve those challenges through acquired tacit knowledge of the employees.

2. Knowledge sharing can be sustained among staff members if there is openness, one mind and team work undermining the context, race, religion and position which staff members occupy.

MODULE 3 KNOWLEDGE MANAGEMENT SYSTEMS AND STRATEGIES

UNIT 1 CONCEPT AND OBJECTIVES OF KNOWLEDGE MANAGEMENT SYSTEMS AND STRATEGIES

Unit Structure

1.1 Introduction

In the previous module 2, unit 3, we considered implication of knowledge sharing among employees in the organization. The reason was due to how useful some of these techniques and tools have played in facilitating knowledge sharing is a factor of production of goods and services in the context of corporate organization.

In the present module 3, unit 1, we shall be looking at concept of knowledge management systems and strategies, and methods of knowledge management systems and Strategies.

1.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to understand:

- Define the concept of knowledge management systems and strategies
- Explain the objectives of knowledge management systems and strategies

1.3 Concept of Knowledge Management Systems and Strategies

In order for prospective and resident students to understand and appreciate the concept of knowledge management systems and strategies, there is need to go back to the drawing board where we considered knowledge management and from there, we should be able to ascertain the various systems that could be used to manage knowledge management and strategies through which they are applied in the organizations. Therefore, on this note, we shall unveil the various variables of knowledge management, systems, and strategies one after the other.

Knowledge management is a multi-interdisciplinary field that cut across science, business management, human resources, organizational development, change management, information technology among others (Serban & Luan, 2002). Serban and Luan (2002) relate it to managing individual and organizational knowledge. To this end, the author affirms that the processes through which knowledge within the organization is captured, distributed, and used to maximize work performance vary in context and content.

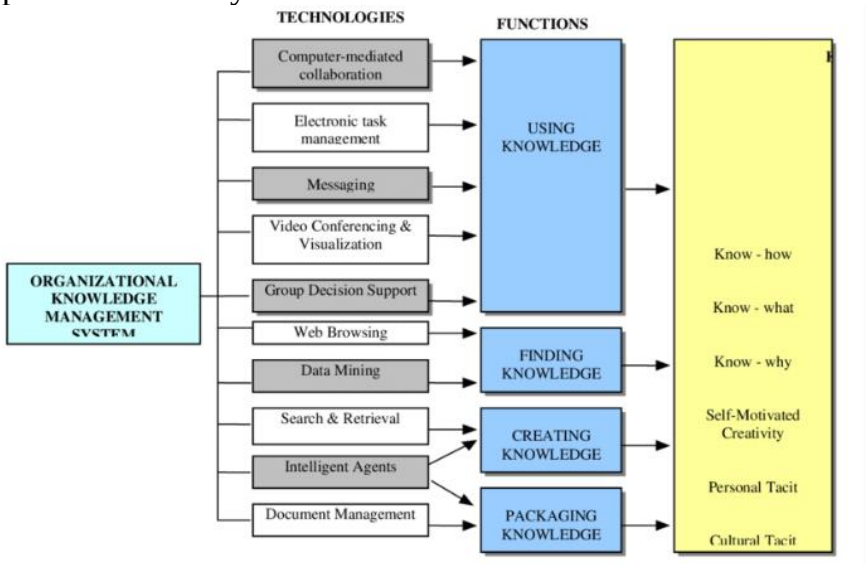

Fig 57: Organizational KM system
http://www.tlainc.com/articl83.htm

Agrawal and Mukti (2020) conceded knowledge management to the principles that govern the techniques which experts use to meet business operations. Ahammad (2018); Jokanović, Okanović, & Lalić (2018); Agrawal and Mukti (2020) gave their views to how organization run their operations using tacit and explicit knowledge. Ahammad (2018) alludes to the process design to recognize, capture, structure, value, influence, and share the organization's intelligent assets for enhanced

work performance of staff members. Jokanović, Okanović and Lalić (2018) allude to the performance enabled through the application of tacit and explicit knowledge utilization. The various analogies indicate that the procedures, processes, practices, and policies guiding the knowledge management actualization require certain systems that could help to store and preserve the individual and organizational knowledge used for work performance and progression of tasks in the organization. The interpretation given regarding knowledge management brings us to knowledge management systems and strategies required of its practices.

By systems, we imply the various form of tools and or technologies that could be used to manage knowledge management from individual to organizational level. A good example of some of those technologies or systems are online community forums, research and insight forums, enterprise-wide knowledge management systems among others. Maier and Hadrich (2011) refer to knowledge management system as element that could be used to manage knowledge capital. What is being manage in this regard is the people, procedures and skills utilized by the individuals. Chait (1999) alludes to the enablers of tools or technologies strategically applied to help support individuals and organizations to create an environment where knowledge management could be sustained. There is no extent to which the effort of the systems could be quantified on how many roles it plays in managing knowledge management.

Tiwana (2000) gave credence to the kind of information technology (IT) system that help to store and retrieves knowledge harvested from individual and the organization. The information technology (IT) system is built such that it could help to understand, process and collect various form of tacit and explicit knowledge from members and other routines in the organization. The knowledge management systems could sometimes centres on activities carried out in the organization (Tiwana, 2000).

Fig 58: Types of KMS
https://www.thecloudtutorial.com/types-of-knowledge-management-systems/

Another important point raised by Akhavan, Jafari and Fathian (2005) note that machines and equipment's could be used to manage intellectual property of employees in the organization. The reason for the use of these machines and equipment was based on the multifarious tasks and responsibilities that employees are confronted with on daily basis. Sharma, Wickramasinghe and Gupta (2005) refer to knowledge management systems as different form of information technology tools that could be used to harvest and stored knowledge of different kinds. The essence of harvesting and storing knowledge of different kinds is based on the information needs of the organizations. The different form of information technology tools is believed to coalmine hidden knowledge, then capture and use it to solve problems.

The understanding obtained from the various authors in this segment indicate that, the usefulness of knowledge management systems cannot be quantified. Collins, Huttunen, Evans and Robertson (2007) note that the organization is not about information technology used to capture, store and transfer knowledge but it is about the people and the knowledge they carry. The knowledge they carry is what enables them in actualizing their task. Although it is difficult to do away with the information technology as it plays a significant role in the organization and supports employees too in accomplishing their obligations. Some knowledge management technologies that have supported individuals in the organizations are groupware, intranet, and extranet, data warehouse, and decision support systems, artificial intelligence, simulation tools, and content management systems (Bali, Wickramasinghe & Lehaney, 2009). The process regarding the application of knowledge management systems was on the understanding that staff initiatives and work performance cannot be wasted, aborted, and undermine hence the use of knowledge management to sustain the created knowledge in the organization.

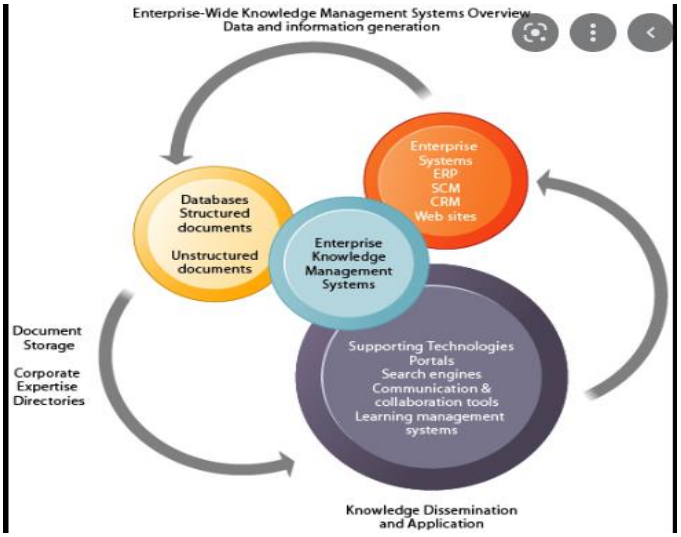

Fig 59: Types of knowledge management systems
https://paginas.fe.up.pt/~als/mis10e/ch11/chpt11-2bullettext.htm

The understanding of knowledge management strategy according to Earl (2001) unveils a plan that describes the various ways through which an organization could manage the available information and knowledge in the organization such that the organization become more transform in whatever the staff members are doing. This strategy is aligned with the organization objectives and goals (Greiner, Böhmann, & Krcmar, 2007).

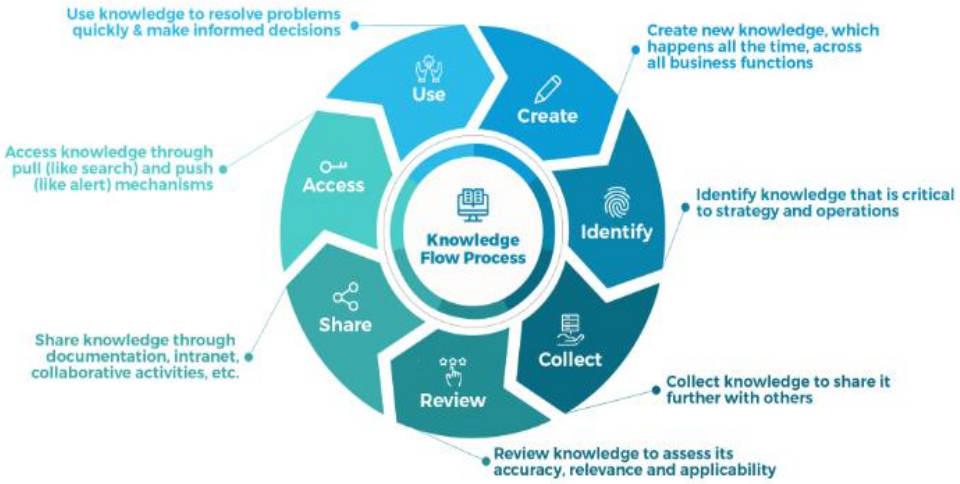

Fig 60: Knowledge flow process
https://www.searchunify.com/blog/7-ways-to-future-proof-your-knowledge-management-strategy/

Desouza and Evaristo (2003) and Schulz and Jobe (2001) refer to the use of codification strategy as a means of transferring tacit knowledge into explicit. The reason for such codification strategy application was for employees to have a grasp of the required knowledge needed to execute task in the organization. Evidence based research has indicated that this form of approach is very useful to employees and organization,

as it helps to solve problem of uncertainties. In knowledge management strategies, the application of the following components or element is very important. The need to motivate staff members, network to reach out for easy accessibility to each other, analyze, disseminate, demand, act upon instruction, invent ideas and augment different knowledge management actions that were supposed to be carried out (Garfield, 2018).

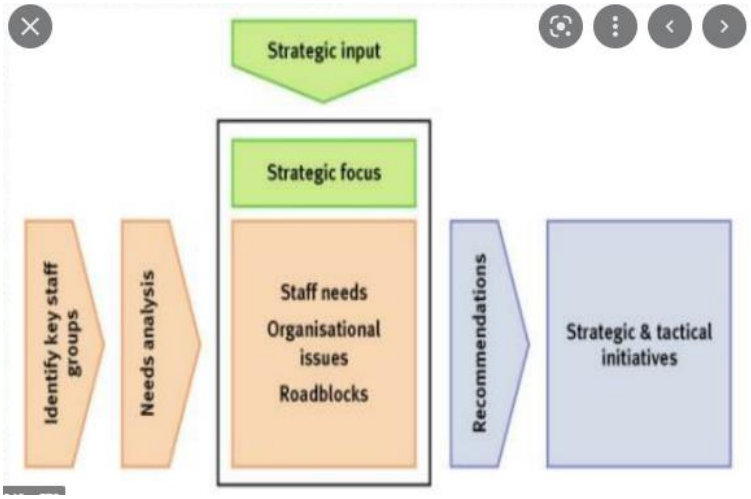

Fig 61: Strategies of KM
https://sites.google.com/site/teacherknowledgeexchange/km-to-promote-learning/strategies-and-models

The use of strategy is believed to provide an opportunity where colleagues could learn from each other and at the same time create awareness for better decision making and planning. Maier and Hadrich (2011) note that the application of knowledge management strategies has brought collaboration and dialogue through socialization emphasis. It also leads to a change of individual mindset, centralization of information and knowledge within the organization, and essential motivation. In this regard, students should imbibe the culture of using different systems and strategies to manage the available information and knowledge they possess and the once in their institution, which is embedded in their different study modules, procedures, policy, and practices they are involved in the institution.

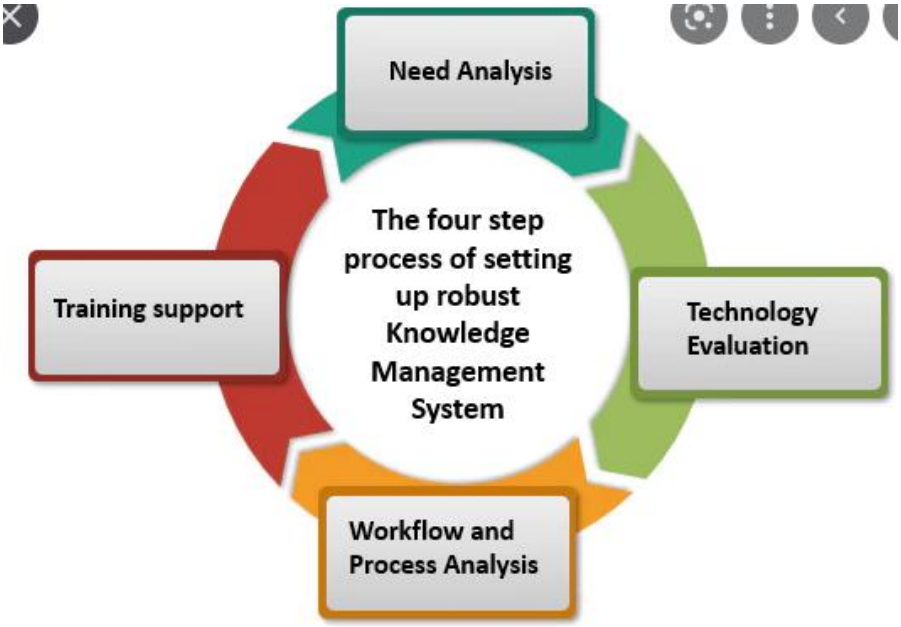

Fig 62: process of KM system
https://iso-docs.com/blogs/iso-concepts/knowledge-management-system-iso-30401

Video **1** https://www.youtube.com/watch?v=1K3mUa0-1Js

Video 2. https://www.youtube.com/watch?v=SvEcTEB9ajQ

Video **3** https://www.youtube.com/watch?v=RXbb87_M3vc

1.4 Objectives of Knowledge Management Systems and Strategies

The objectives of knowledge management systems and strategies has to do with the purpose for which knowledge management systems (KMS) is used in the organization and strategies through which application of initiatives was employed in execution of tasks to managed activities. The reason that necessitates this analogy was due to the role each of the identified knowledge management systems play and capability of the systems, as not all knowledge management systems could function the same way. Garfield (2018) states that, application of knowledge management systems and strategies could help to discovery of new

talents of employees having diverse skills and know-how, which were not seen with the naked eyes in the organization. This would lead to the collection of various data and information already created by employees. In the course of performing different tasks assigned to employees, they end up creating new knowledge. The created knowledge is assessed, validated and shared for application of work performance in the organization (Garfield, 2018).

du Plessis (2008) established that knowledge management systems and strategies lead to community of practice, achievement of different goals irrespective of the culture that exist in the organization. Implementation of successful knowledge management program was also mentioned during du Plessis 2008) research activities. The successful knowledge management program leads to answering employees' questions regarding some of the process, techniques and technology required in ensuring optimum alignment of business operations and organizational goals. The availability of process, techniques and technology assisted employees to participate more in the activities ongoing in the organizations.

Jokanović, Okanović and Lalić (2018) refer to successful knowledge management project in the organization due to the support of the available systems and strategies which employees applied in working together as team. The knowledge management available systems and strategies resulted in the development of a conceptual framework that guided employees in most of the work they do in the organization. Although certain challenges were experience considering the complexity of the systems, but because they supported each other in putting together those tacit and explicit knowledge, those challenges were resolved. This implies that, a well-established organization is believe to flourish when they were able to synthesize the understanding of how the knowledge management systems and strategies were applied. Although the formulation of strategies could differ from one individual to another.

There were other factors such as motivations, taking of inventory, analyzing of job description, networking, codification of knowledge among others that necessitated knowledge management systems and strategies in present-day organizations, where information and knowledge are key resources to achievement of their tasks or work performance (Garfield, 2018).

Knowledge management systems and strategies are pivotal because it can be used for the collection of various data and information already created by employees. The tasks through which the knowledge management systems and strategies could function are diverse in their capability considering the performance of different tasks assigned to

employees. This has created more opportunity of acquiring new knowledge, required to sustain and maintain their job profession.

1.5 Summary

It can be deduced from the unit that the concept of knowledge management systems and strategies, can be drawn from a broad perspective of scholars who have carried out diverse research practices. It was established that knowledge management systems and strategies are systems used for the processing, capturing, distributing, and maximizing work performance in the organization. There is no organization in present day context that can do without the use of knowledge management systems and strategies. The understanding here indicates that, the usefulness of knowledge management systems cannot be quantified. It has helped organization to be more stable and versatile based on what they have used it for in the organization. The reason is that, the technologies can be used to capture, store and transfer knowledge among employees. With this in mind, it is worth mentioning that, the objectives of knowledge management systems and strategies has helped the organization and colleagues to discover new talents of employees having diverse skills and know-how, which were not common among peers in the organization.

1.6 Glossary

1. Different technologies of online community forums, research and insight forums, enterprise-wide are now used to support the operations and services
2. People, procedures, strategies and skills utilizations are the enable of the use of these technologies
3. The application of knowledge management systems and strategies serve the purpose of discovery of new talents of employees

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. As a library and information science student, what can you say about your understanding of knowledge management systems and strategies
2. What are the objectives of knowledge management systems and strategies in the organization.

Assignment File

1. Discuss the concepts of knowledge management systems and strategies based on 3 authors' point of view

2. Why do you think knowledge management systems and strategies are of importance in the organization?

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1.8 Possible Answers to Self-Assessment Exercise

1. Knowledge management systems has to do with the application of certain systems of enterprise-wide systems, knowledge work systems and intelligent technologies in support of the organizational performance. In carrying out this work performance the tacit and explicit knowledge are mostly required. These KMS help to design, recognize, capture, structure, value, influence, and share the organization's intelligent assets for enhanced work performance among staff members.

2. The objectives of knowledge management systems and strategies in the organization is to help staff members discover of new talents, skills, innovation, know-how, which were difficult ordinarily in the organization.

UNIT 2 TYPES AND FUNCTIONS OF KNOWLEDGE MANAGEMENT SYSTEMS AND STRATEGIES IN LIBRARIES

Unit Structure

2.1 Introduction

In the previous module 3, unit 1, we considered concept of knowledge management systems and strategies and their objectives. The reason was due to how useful the knowledge management systems and strategies has been used over time in supporting the staff members in carrying out their tasks and at the same time, giving the organization a sense of direction with global practices.

In the present module 3, unit 2, we shall be looking at the types of knowledge management systems and strategies, and functions for which the knowledge management systems and strategies are applied.

2.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Explain the types of knowledge management systems and strategies in libraries
- Discuss the functions which knowledge management systems and strategies

2.3 Types of Knowledge Management Systems and Strategies in Libraries

By types of knowledge management systems and strategies we imply or refers to the various categories, kinds and nature of knowledge management systems and strategies that could be used to support and

enhance knowledge management activities in the organization. The types and use of the various types of knowledge management systems discussed in this unit vary in context and purpose for which they would be used for in the organization growth and transformation. The use of knowledge management systems and strategies has become a panacea through which the organization flourish in present information and knowledge economy.

There are different types of knowledge management systems and strategies used to carry out job descriptions assigned to colleagues. The types of knowledge management systems and strategies according to Cloud Tutorial (2022) are enterprise-wide knowledge management systems, knowledge work systems, and intelligent techniques. These are the major knowledge management systems designed for specific work activities in corporate organization (Cloud Tutorial, 2022). The operations of these knowledge management systems indicate that they are used for diverse functions leading to creation, managing, and distributing information and knowledge in the organization (Cloud Tutorial, 2022). The knowledge management systems make use of the intranet and extranet and website in most cases to execute their operations.

2.3.1 Enterprise-wide knowledge management systems

According to Cloud Tutorial (2022) the enterprise-wide knowledge management systems is a system used for general purpose. By this we imply using the enterprise-wide knowledge management system to collects, stores, distributes, manage and use digitized information for related knowledge applications. Some of the organizational learning which the enterprise-wide knowledge management systems are used for comprises of portals, search engines, collaboration tools, learning management systems. It could be established that some of these systems help to deliver tools, online directories, and locating specialized knowledge of colleagues or staff members (Cloud Tutorial, 2022). According to Botha et al, the enterprise-wide knowledge management systems work best where experienced professionals apply their tacit type of knowledge in using the systems to handle task. With this in mind, searching relevant information to perform task becomes easier for both structured and unstructured format.

Fig 63: Enterprise-wide knowledge management system
https://prezi.com/l1ugl4o8dyf9/enterprise-wide-knowledge-management-systems/

2.3.2 Knowledge work systems

When addressing knowledge work systems, it was established that the system is such a specialized management system designed for people like scientists, engineers, medical doctors, architectural among other experts (Cloud Tutorial, 2022), using it for knowledge management program in the areas of online directory, corporate company specific work performance. With the help of this standardized expert systems, employees have a lot of assistances of finding accurate information and knowledge required in carrying out their future work practices. The use of the knowledge work systems is tacit in nature when it comes to the experiences required. The learning by tacit experience involves using the knowledge work systems to perform group work, access information, implement knowledge management practices, and using search engine to retrieve information of related taxonomy (Cloud Tutorial, 2022).

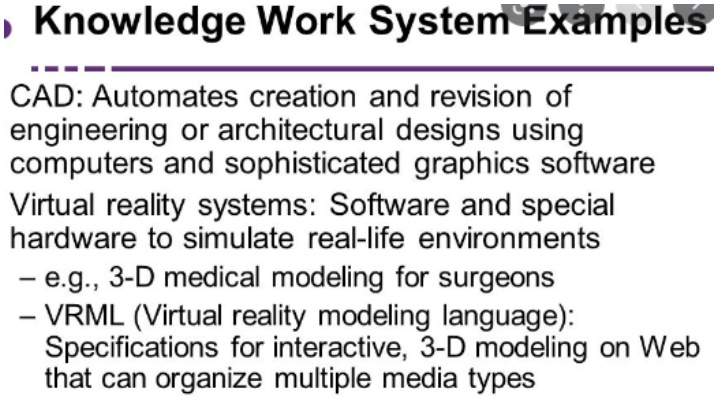

Fig 64: Examples of Knowledge work systems
https://slideplayer.com/slide/6385908/

2.3.3 Intelligent techniques

The intelligent techniques are one among other types of knowledge management systems used to collect, store, and manage knowledge in a smart way (Cloud Tutorial, 2022). The reason for using it to manage knowledge in a smart way was due to the intelligent agent embedded that help people predict task success, business processes and other things connected to systems and software applications (Cloud Tutorial, 2022). The reason why it is important to have predictive knowledge of intelligent techniques is that it helps employees or staff members to make use of recent systems like artificial intelligence. The reason of using artificial intelligence is to synthesize raw data which are valuable knowledge management systems was based on the need to capture, transfer, store and acquire more valuable knowledge required to support staff members in their daily obligations.

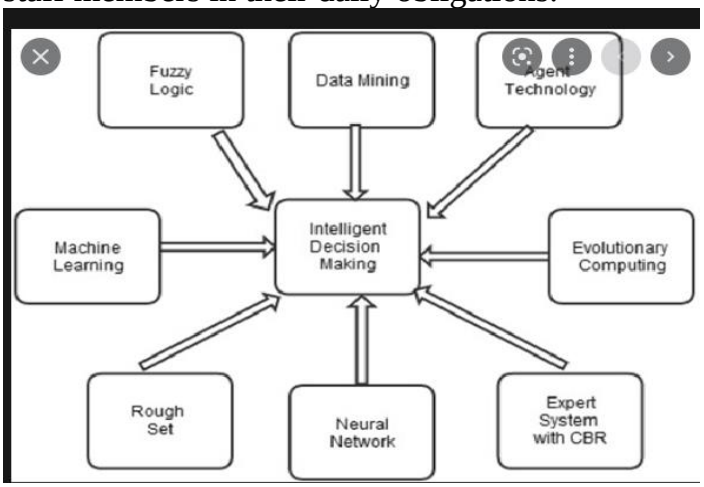

Fig 65: Intelligent techniques
https://www.semanticscholar.org/paper/Intelligent-Techniques-in-Decision-Making-%3A-A-Das/621a729c708b13515048c4a6a1d9d90f85a80e00

The most intriguing thing about the knowledge management system is that, it uses systems such as deep learning, machine learning, big data techniques that focuses on designs and networks. These information systems help organization re-organize massive data sources that quickly retrieve required information for work operations. Another point to note regarding the knowledge management system is that it permits organizations and individuals to manage much volumes of communities, groups and webinars of optimize effort of knowledge management. Beside all that has been mentioned, easy articulation, codifications, storage and accessibility of explicit knowledge is certain, hence the interest of many businesses information system expert using it as a knowledge management software in their organizations (Cloud Tutorial, 2022).

It could be observed in this unit that the mentioned knowledge management systems have the following features. The features comprise of internal and external maintenance of team members, customization of full options support, notable analytic and reporting features and functions, systems software integration, efficient content management (Cloud Tutorial, 2022). In light of this emphasis, student registered for this course or module should have at the back of their mind that, there is need to understand the knowledge management systems and strategies and how it has helped to strengthen individual work performance in the organizations. Presently, there is no viable and reliable compromising organization that could do with the use of knowledge management systems and strategies in executing their daily tasks.

There are other knowledge management systems that could be classified under IT-based systems (Alavi, & Leidner, 1999). These are developed and used to sustain and improve organizational procedures leading to knowledge creation, storage, retrieve, transfer and application for best work practices (Alavi, & Leidner, 1999). The essence of having to improve organizational procedures was based on plans to use online directories and search databases for distributing knowledge and accomplishing other tasks of different project's management in the organizations. Previous studies by Manasco (1996) and Wiig (1997) allude to different types of knowledge management strategies that could be used to support the organizations and this include knowledge strategy in business intelligent asset management strategy, personal knowledge asset accountability strategy, knowledge conception strategy, knowledge transmission strategy, customer-focused knowledge strategy, emerging and relocating performance, generating new industry from entrenched knowledge, determining corporate strategy, and encouragement of commercialized origination.

2.4 Functions of Knowledge Management Systems and Strategies In Libraries

The discussion associated with the functions of knowledge management systems and strategies imply the roles which the knowledge management systems and strategies could play in the organizations or libraries. Hameed and Badii (2012) mentioned the following as the functions which the knowledge management systems and strategies has over the different tasks in the organizations. These comprise of training expansion among colleagues, enforcing the sharing knowledge of staff members, establishing research practices, documenting information accessed online, answering customers quarries and that of employees, intimacy among staff members, alignment of goals to company sales of products and services, use of marketing research strategy, management of deep thoughts and insights for business process practices.

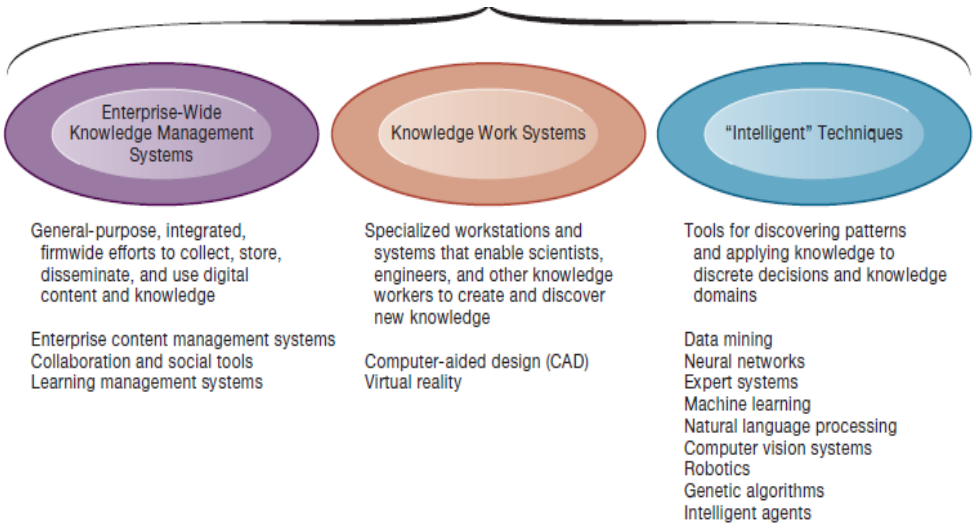

Fig 66: Functions of KMS
https://phantran.net/what-is-the-role-of-knowledge-management-systems-in-business/

There were other functions which the knowledge management systems and strategies could be used for in the organization. The said functions are to harness, collect, process, store, retrieve, and use knowledge for improved service delivery. The service delivery was based on the understanding of collaboration and alignment of the knowledge management systems. As earlier discussed the knowledge management systems could exist among team members in the organization, users or customers initiates based on the desire to grow or support the organizations (Digmayer & Jakobs, 2014).

Maier and Hadrich (2011) explained that, the knowledge management systems and strategies have the potentials of finding, mapping, gathering, filtering, and developing information and knowledge that could be used for best practices of work performance in the organization. This resonated from identification of shared knowledge seen among staff members. Maier and Hadrich (2011) further note that, issues such as robust searching of information in online is ensured, which could be used to respond to assessment of reports made in analytic of data in the systems. It is believed that, through this measure there could be knowledge flow for work operations among staff members (Maier and Hadrich (2011). It could be recall that imaginative thought of staff members could lead to having the ability to proffer solution for business operations whereby work flow is not hindered.

Buřita (2010) notes that other functions for which knowledge management systems could be used comprise of organization of information, user awareness, creation of residual knowledge, investing in community of practices, staff training, processing of tasks,

operational efficiency, teaching and learning, research development, personal work practices, project management, and integrated work among colleagues. Content management and creating ideas where staff members could use the knowledge management systems and strategies to manage, distribute, publish, retrieve and distribute information and knowledge among other colleagues, was also identified.

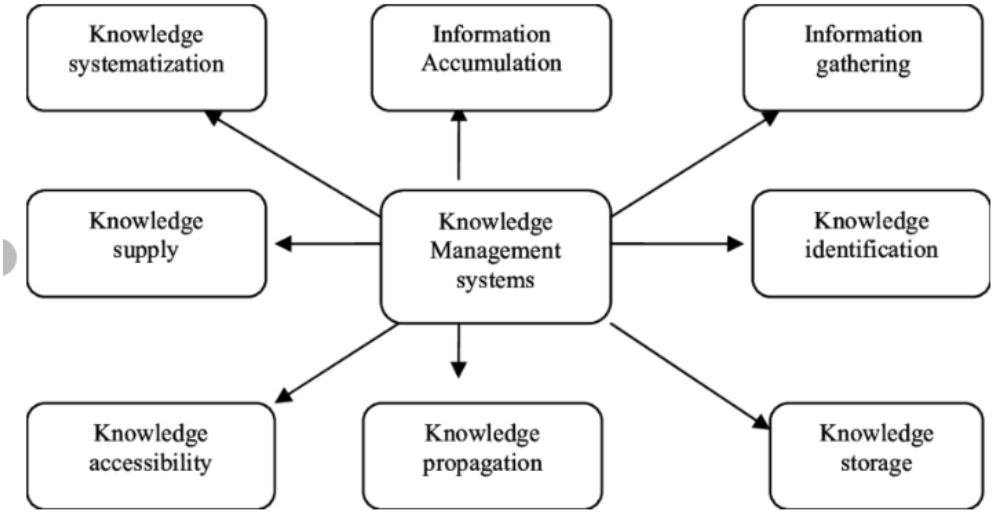

Fig 67: Function of KMS
https://www.researchgate.net/figure/Functions-of-knowledge-management-systems-15_fig1_228818669

The insight obtains from this unit indicate that the types knowledge management systems and strategies in libraries and other organization vary in context and content due to the consideration of job description for which the knowledge management systems and strategies were proffered. It could be established that the functions which the knowledge management systems and strategies are crucial in any workplace or environment. The knowledge management systems and strategies play significant role in the achievement of the goal of the institution for which they are acquired.

2.5 Summary

This unit established that different types of knowledge management systems and strategies are pivotal because it can be used for the collection of various data and information already created by employees. The tasks through which the knowledge management systems and strategies could function are diverse. Therefore, the need for employees to upskills become significant as it would enable them to navigate within the ambiance of the knowledge management systems and changing nature of the work ethic and environment. The various types of knowledge management systems have the capability of equipping staff members to accomplish their task on a regular basis. This has created

more opportunity of acquiring new knowledge, required to sustain and maintain their job profession.

2.6 Glossary

1. Different types of knowledge management strategies include knowledge strategy in business, intelligent asset management, personal knowledge asset accountability, knowledge conception, knowledge transmission, customer-focused knowledge, emerging and relocating performance, generating new industry from entrenched knowledge, determining corporate, and encouragement of commercialized origination.

2. Knowledge management system systems are used for deep learning, machine learning and big data techniques that focuses on designs and networks.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Why do you think the different type of knowledge management systems and strategies vary in context and content
2. What other functions apart from the ones mentioned could it be used for in any growing organization like libraries

Assignment File

1. Discuss the various types of knowledge management systems and strategies
2. What are the various functions through which knowledge management systems and strategies could be applied in the organization?

2.7 References/Further Readings

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Manasco B., 1996, Leading Firms Develop Knowledge Strategies, Knowledge Inc., October. https://www.emerald.com/insight/content/doi/10.1108/02635570510590101/full/pdf?casa_token=uLkXsoK8nbUAAAAA:TDBCMF2cBtI8xSs-pLQxoo_AXv-QYmvQ8lxuV6jrkxE7x5DFUTufbutX8QP9qPTarZFxViEwWO6IIhOlesDwArfQextJ7aoWgs9f9FyGIN_Jo24oeGBf

Wiig, K. M (1997). Knowledge Management: Where Did It Come From and Where Will It Go?, Expert Systems with Applications, 13, 1, 1-14. https://www.sciencedirect.com/science/article/pii/S0957417497000183

2.8 Possible Answers to Self-Assessment Exercise

1. The different type of knowledge management systems and strategies vary in context and content because they are not created to work in the same job functions and users need. The capability of each of the KMS would determine what it is capable of doing irrespective of the context and content.

2. Knowledge management systems and strategies could also function in industries such as automobile and hospital apart from the ones earlier mentioned.

UNIT 3 FORMULATION AND IMPLEMENTATION OF KNOWLEDGE MANAGEMENT SYSTEMS AND STRATEGIES IN LIBRARIES

Unit Structure

3.1 Introduction

In the previous module 3, unit 2, we considered the types of knowledge management systems and strategies, and functions for which the knowledge management systems and strategies are applied.

In the present module 3, unit 3, we shall be looking at the formulation and implementation of knowledge management systems and strategies in libraries

3.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Discuss the formulation of knowledge management systems and strategies in libraries
- Explain the implementation of knowledge management systems and strategies in libraries and related corporate organization.

3.3 Formulation of Knowledge Management Systems And Strategies In Libraries

By formulation we refer to the design, preparation and invention by which knowledge management systems and strategies could be aligned with organizational goals. The reason why formulation of is important is that it help the individual to be well guided based on the architectural designed put in place to run the system. Formulation of knowledge management systems and strategies serves as blueprint that must be followed for organizational success.

In present day economy, where information and knowledge have become panacea to users' information needs, organizations need to plan ahead to be at the forefront and same page with individual interest in ensuring their needs are met. This is due to competitions and diversities of activities of tasks and work performance that need to be attended to on achievement of organization growth. Firestone and McElroy (2005), noted that, the formulation of knowledge management systems and strategies require adequate learning and understanding procedures, policy and practices of the organization in order to determine what is expected and how to go about it. This would help to foster alternate resolutions of errors that has been made in time past. Besides, the formulation of knowledge management systems and strategies entails reclaiming and validating the knowledge that needs to base on emphasis of what the formulation entails.

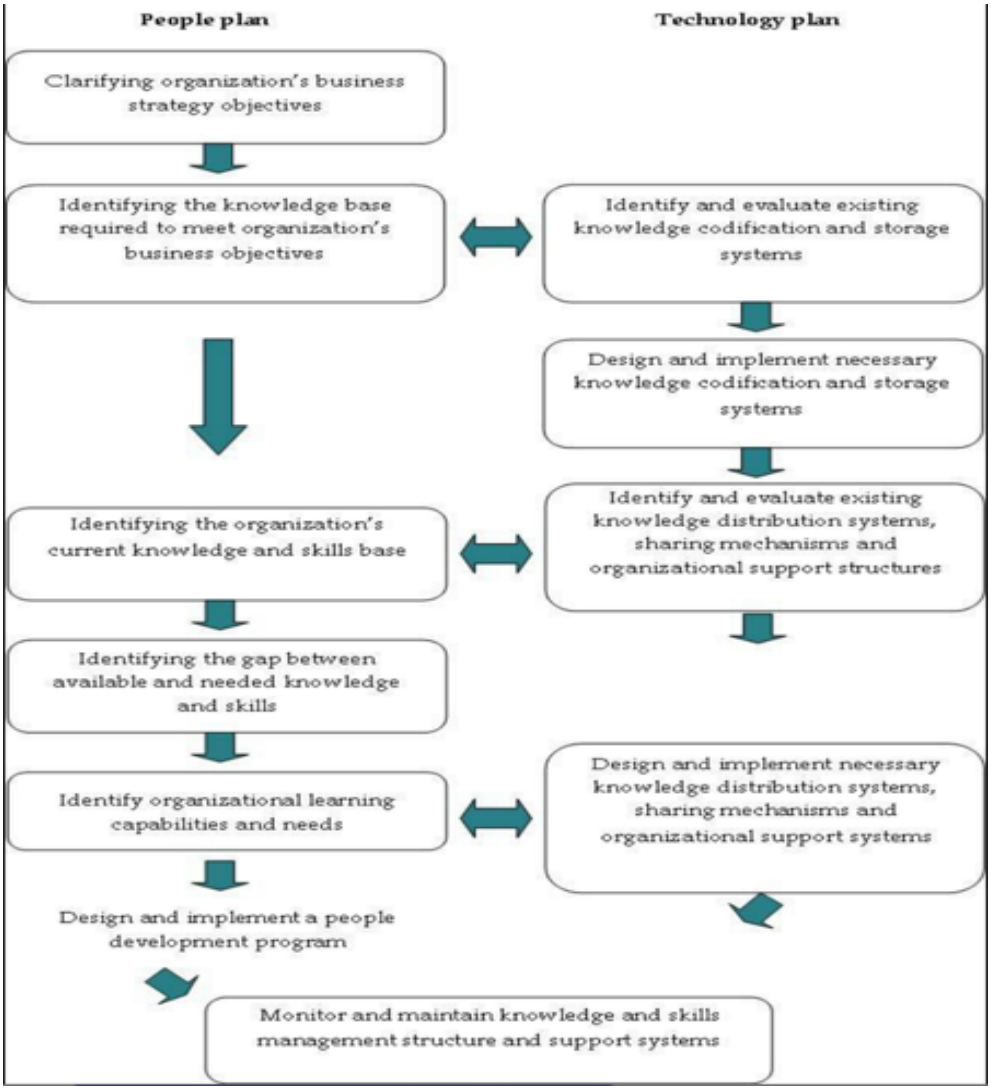

Fig 68: Formulating/design of KMS
https://www.researchgate.net/figure/Developing-the-Knowledge-Management-Strategy-Riley-2002_fig3_257922672/download

Another point raised according to Dayan, Heisig and Matos (2017) regarding the issue of formulation of knowledge management systems and strategies is that, the organization has to ensure the formulation is tested to find out its sustainability in the organization, because it is going to play key roles in the assessment of work activities and organizational dynamism. Some of the proposed formulated knowledge management systems and strategies are meant for specific and general work practices and ethical value in the organization. They are planned such that it would not jeopardize standards and value systems. Firestone and McElroy (2012) have also referred to key issues regarding some of the new adaptive complex systems used for modeling formulation of knowledge management systems and strategies in the organization. This resonated from knowledge management life cycle framework.

The knowledge management life cycle framework enables the application of strategies that could draw the management of the organization to apply the best option of business strategies that would bring result and formulation of good ideas (Dayan, Heisig and Matos (2017). It is important to know that some of these have their positive and negative part of it, considering the procedures of pragmatism in the organizations. This shows that, the need to have a proposal that could guide the organizations is important in this world of uncertainty and diversities. The essence of the proposal is to see that every indicator of the formulation of knowledge management systems and strategies are included on the manuscript of the proposal.

Carneiro (2000) notes that the formulation of knowledge management systems and strategies is important because it has a lot of influence over the innovation of competitors due to the advancement of diversities of ideas that developed and wrote the proposal for the organization. The effort put in place in arriving at the proposal cannot be undermined due to different areas of expertise of scholars from different background (Cuthbertson, & Farrington, 2002). Therefore, the situation of the organization should be managed such that it does not lead to having catastrophe of continuous disarray of learning that should have brought innovation of quality service delivery. This shows that knowledge management systems and strategies require where professionals learn together to unveil what is hidden in the organization.

Another school of thought by Sveiby (2001) and Dayan, Heisig and Matos (2017), is that, the formulation of knowledge management systems and strategies is based on epistemic approach of expanding what practical approach is expected and required in this regard. It is imperative to know that the purpose of the formulation of knowledge management systems and strategies could be that, different collections of employee's knowledges are essential based on the implication of

what the formulation of knowledge management systems and strategies meant to serve in the organization. The implication is that, first it has a variety and dimensions of ensured strategies, second, it has the chance to improve the success in altering and competition, third, it has a global knowledge management world view expert, fourth, its methodology and context differs, fifth, it can be integrated into any organizations.

3.4 Implementation of Knowledge Management Systems and Strategies in Libraries

The discussion surrounding the implementation of knowledge management systems and strategies in libraries denotes that, for every formulated, designed and prepared proposal or invention meant to support the goals and objectives of knowledge management systems must be aligned with organizational structure. In the actual sense, there is nothing that could work without following the laid down rules and regulations that govern the staff and activities of knowledge management practices in the organization.

Drawing analogy from some of the emphasis made in the formulated knowledge management systems and strategies, before its implementation, indicate that, such formulation that covers underlaying learning, understanding procedures, policy and practices, fostering alternate resolutions to eradicate errors, maintaining standards and value systems, and adhering to new adaptive complex systems used for modeling formulation of knowledge management life cycle require deep thought and implementation in order to sustain and better the organization for international standards.

Feng, Chen and Liou (2005) addressed the implementation of knowledge management systems in corporate firm based on work performance indicate that, there is need to adopt new strategies of knowledge management systems that should impact the organization even though many organizations have tried it and it did not work for them. The new strategy could lead to finding out what other measures fit the organizational approach and structure especially now that technologies have been infiltrated into the organization.

Chalmeta and Grangel (2008) mentioned some methodology through which the implementation of knowledge management systems could be actualized and this comprised of identification, extraction, representation, processing and utilization. These variables serve as blueprint of the methodology required to implement knowledge management systems and strategies (Chalmeta, & Grangel, 2008). The reason why the use of these variables mentioned are important is that, the application of knowledge management systems is complex to handle

as such, there is need to apply certain approach or methodology which give a better explanation of how the methodology of the systems could function, hence the above-mentioned ones. A good representation of the emphasis is well represented in the figure below.

By identification, we imply generating new knowledge that would not be too confusing from what is known between information and knowledge among employees. The reason for the knowledge identification was based on identified problem that needs to be solved. Identifying the best knowledge is crucial top organization growth and individual effort in actualizing established tasks. To identify what individual in the organization, possess or capable of doing means that such individual must have avail themselves (Chalmeta, & Grangel, 2008).

By extraction, we refer to the ways through which data, information and knowledge could be obtained from the different information systems and individual expertise in the functionality of activities and tasks in the organization (Chalmeta, & Grangel, 2008). In this regard, the sources from which we extract documents, data, information and knowledge in the various knowledge management systems varies in context. The essence of extraction is to ensure the relevant documents, data, information and knowledge needed for the organizational growth and transformation is available. Most of the extraction of documents, data, information and knowledge relies mostly on tacit type of knowledge due to the impact it has on the knowledge management systems. Due to how difficult it is sometimes to extract the tacit type of knowledge from individual who possess it hence the use of knowledge management systems (Chalmeta & Grangel, 2008). The reason for this difficulty was based on belief systems, personal values and cognitive tacit variables.

Representation: *Representation is the* third phase of the methodology of knowledge management systems. Usually at this stage, when the information and knowledge has been identified and extracted from the different sources, the need for it to be represented becomes essential. In the representation phase the information and knowledge are represented to provide a model of knowledge map of the organization (Lin & Hsueh, 2006). The knowledge map is represented at diverse points of thought. What is meant here is that, a model of knowledge map is being formed at computation independent model (CIM) level, thereafter, alteration mechanisms are used to get matching model at Platform Independent Model (PIM) level. The modelling of knowledge map at the CIM and the PIM level is accomplished by different set of outlines which are advanced for the purpose of extension mechanisms on the condition that the modern version 2.0 of Unified Modelling Language is functional (UML; Object Management Group, 2004; Chalmeta & Grangel, 2008).

Processing: By processing we refer to how the documents, information and knowledge identified, extracted and represented in the knowledge map are processed. In the processing phase what happen here is that, the model helps to execute the running of the documents using a certain technological platform called Platform Specific Model (PSM) in the MDA approach (Chalmeta & Grangel, 2008). In this regard, the processing hat take place in the knowledge map is assisted with a specific computer platform in the instruction that permit enterprise to acquire and apply the knowledge where and when it is demanded (Chalmeta & Grangel, 2008).

By utilization: In the utilization phase, what we imply here is that, the information, documents and knowledge that has been identified, extracted from different sources, represented in the knowledge map, and processed are now given out for use in actualization of the organizational growth (Chalmeta & Grangel, 2008). Without use the essence of acquiring, obtaining and creating knowledge and information is worthless. What makes an individual and organization the way it is today is based on the utilization of information and knowledge on daily basis. The information and knowledge are utilized for specific and general work operations, such that, uncertainties are removed. With the utilization of knowledge management systems in place, different types of tasks such as training, planning, development of projects, continuous reskilling, overhauling, evaluation, work performance and maintenance could be accomplished within and outside the organization (Chalmeta & Grangel, 2008). These are mostly followed and guided by the policy and procedures of self-assessment of the use of the knowledge management systems. The knowledge management systems have the capability to execute diverse activities of work performance irrespective of the volume of task.

PHASES	ACTIVITIES	TECHNIQUES	EXPECTED RESULTS	COMPUTER SUPPORT TOOLS
PHASE I. Identification	• Identify the conceptual blocks of knowledge • Classify into ontological categories • Define the target knowledge (knowledge requirements)	• Templates and questionnaires to identify blocks of knowledge • Reference models concerning the target knowledge	• Conceptual blocks of knowledge • Target knowledge • Categories	• Office automation tools • Modelling tools
PHASE II. Extraction	• Extract knowledge from sources in order to define the input variables and categorise it • Define the extraction and calculation procedures	• Templates to define the input variables • Reference models for extracting and calculating target knowledge	• Set of input variables • Extraction and calculation procedures	• Office automation tools • Modelling tools
PHASE III. Representation	• Establish the relations within the target knowledge • Draw up the knowledge map	• Metamodelling (UML) • Ontologies • Conceptual maps	• Model of the Knowledge map	• Modelling tools • Ontology engineering tools
PHASE IV. Processing	• Develop the technological infrastructure supporting the knowledge map by following an object-oriented methodology for the development of computer systems	• BPM techniques • ETL techniques • Document/DBMS • Data warehouse • OLAP • Data mining	• Knowledge portal (Executable knowledge map)	• BPM tools • ETL tools • Document/DBMS • Data warehouse • OLAP • Data mining
PHASE V. Utilisation	• Establish training and continuous improvement mechanisms among the members of the organisation • Carry out maintenance and the feedback process on the knowledge management system	• e-Learning • Groupware • TQM • ISO standard of quality	• Efficient use of knowledge within the organisation	• Office automation tools • Modelling tools • Learning tools

Fig 69: Methodology of KMS in the organization
https://onlinelibrary.wiley.com/doi/epdf/10.1002/asi.20785

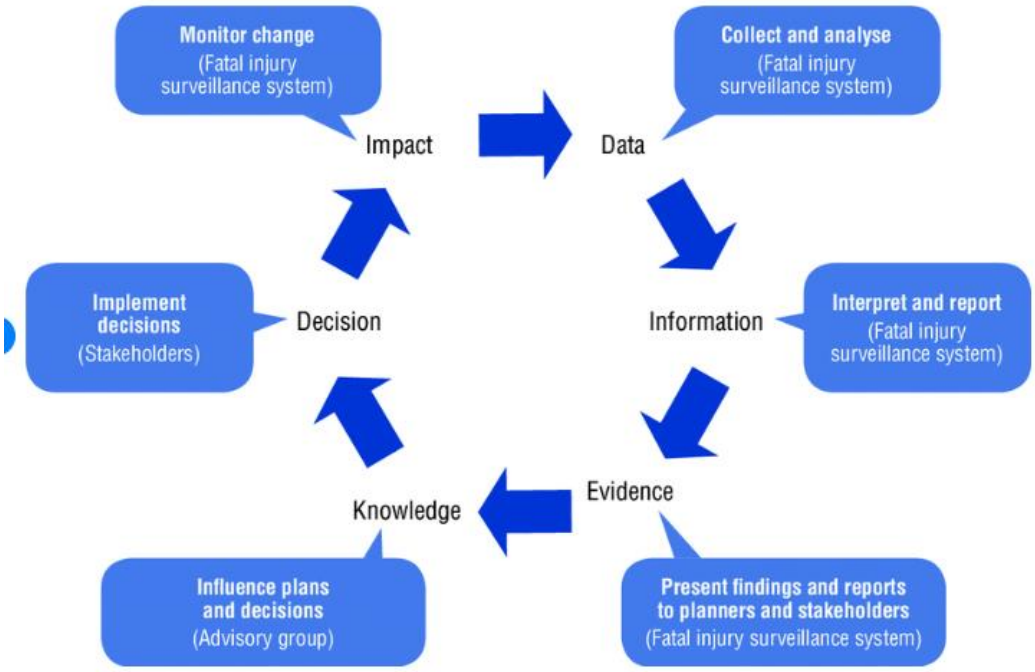

Fig 70: Transforming data + information+ evidence=impact (KMS)
https://www.researchgate.net/figure/Transforming-data-into-information-and-evidence_fig2_235327884

The formulation and implementation of knowledge management systems and strategies are crucial in any growing and established organization because the formulation helps as guide and blueprint which

must be followed in order to achieve a milestone in all activities in the organization. The insights gained from the formulation of knowledge management systems and strategies serves as guided and bases on the architectural designed put in place to run the system. Therefore, to perform work adequately, the support of specialties of knowledge management systems experts become important as it will help the systems to serve its purpose and longevity. Relating to the present-day students at the NOUN, there is the expectation that, performing their utmost goal require preparedness and continuous upskilling in the utilization of knowledge management systems. This would ensure their study roles is attained amidst the curriculum that should guide their study focus.

3.5 Summary

It was established in this unit that the formulation of knowledge management systems and strategies are crucial for the transformation of any organization. In this regard, the formulation connotes designing, preparing and invention of ideas that could be useful in managing the knowledge management systems and strategies. The organizational goals in this case must be put into consideration. The reason why formulation is of importance is that it could help the individual to be well guided based on the architectural designed put in place to run the system. Formulation of knowledge management systems and strategies serves as blueprint that must be followed for organizational success. As organization expand in size and shape, information and knowledge become the ingredients used in solving the implementation of the formulated policy meant for information needs of individuals. Therefore, for the formulation and implementation of knowledge management systems and strategies to become successful, the need to plan and prepare for the execution of such plan become imperatives.

3.6 Glossary

1. Formulation implies the design, preparation and invention by which knowledge management systems and strategies could be aligned with organizational goals.

2. Implementation of knowledge management systems and strategies involves how the designed preparation proposal or invention meant to support the goals and objectives of knowledge management systems must be aligned with organizational structure.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. How would you formulate knowledge management systems and strategies that will be relevant for the operationality of the organization?
2. Why do you think it is imperative to implement the knowledge

Assignment File
1. Discuss the steps involved in formulating management systems and strategies
2. How can Implementing of a knowledge management systems and strategies be successful in any organization

3.7 References/Further Reading

Chalmeta, R., & Grangel, R. (2008). Methodology for the implementation of knowledge management systems. *Journal of the American Society for Information Science and technology*, *59*(5), 742-755. https://onlinelibrary.wiley.com/doi/abs/10.1002/asi.20785

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Sveiby, K. E. (2001). A knowledge-based theory of the firm to guide in strategy formulation. *Journal of intellectual capital*. https://www.emerald.com/insight/content/doi/10.1108/14691930110409651/full/html

3.8 Possible Answers to Self-Assessment Exercise

1. The formulation of knowledge management systems and strategies can be carried out using different guide and relevant resources/materials that has be developed for the operationality of the organization. With this the employee is rest assured that what they are doing is in line with the objectives and goals of the organization.

2. It is imperative to implement the knowledge management systems and strategies formulated because employees cannot work in isolation, rather they must be guided by set rules, and policy and principles guiding the organization. The implementation of the knowledge management systems and strategies formulated showcase that the organization is working in the direction of their set goals.

MODULE 4 KNOWLEDGE ARCHITECTURE, ETHICAL ISSUES AND PROBLEMS IN KNOWLEDGE MANAGEMENT

Unit 1 Definition, and Purpose of Knowledge Architecture
Unit 2 Design/Structure, and Segments of Knowledge Architecture
Unit 3 Requirements, Enterprise, Issues in Designing Enterprises in Knowledge Architecture and implications of ethical issues in Knowledge Management

UNIT 1 DEFINITION AND PURPOSE OF KNOWLEDGE ARCHITECTURE

Unit Structure

1.1 Introduction

In the previous module 3, unit 3, we considered the formulation and implementation of knowledge management systems and strategies in libraries. In the present module 4, unit 1, we shall be looking at the definition, purpose, design/structure and segments of knowledge architecture.

1.2 Intended Learning Outcomes (Ilos)

By the end of this unit, students registered for this course should be able to:
Explain the definition, purpose, design/structure and segments of knowledge Architecture

1.3 Definition and Purpose of Knowledge Architecture

The purpose and definition of knowledge architecture are explained as follows:

1.3.1 Definition: Knowledge Architecture

By architecture, we imply the art and technique through which certain design and or building is constructed based on the skills of construction with the intention of creating a picture. In order words, the practice of creating a representation of certain which someone has in mind (Collins, 2022). A good example is the image of the building below created with the intention of what the creator or architecture has in mind.

Fig 71: Architecture image
https://www.britannica.com/topic/architecture

With this in mind, it becomes essential and better to have a clear view of what knowledge architecture is all about. Kesh and Ratnasingam (2007) allude to knowledge architecture as the knowledge procedures that recognizes the know-how and requirements needed in forming, capturing, unifying, editing and using the relevant knowledge assets for creation of new knowledge for better representation in the organization. While considering knowledge architecture, it is most essential to note that, tacit type of knowledge is crucial before the creation of imagination is fully represented in the physical form that could later be built (Kaipa, 2000). This means that, the tacit type of knowledge could be used to solve an imaginative problem difficult to handle by individuals in the organizations. The architectural work is created in the mind of the individual through the support of the imaginative thought of what is to be created physically (Kaipa, 2000).

Glossary Gartner (2022) alludes to knowledge architecture as a scenario where knowledge possessed by certain experts or individuals are identified and used for the edification of the organization or environment. What is used for the identification of the knowledge could

be regarded as technological devices, thus resulting to the creation of different design and art work. The process of such knowledge identification leads to further re-organizing of the imaginative mind, accessing and utilizing other materials things that could bring out what is to be built in the organization or systems (Glossary Gartner, 2022).

When dealing with knowledge architecture, those who are involved ensures that they do all they can to implement application of tacit type of knowledge in accomplishing the task of the construction. This leads to specifying the most needed materials required in the construction of the architectural design in the organization. Knowledge architecture is not applicable to only building and design but construction of our mind and intellect such that the mind brings out good result from the use of tacit type of knowledge in solving organizational and individual problems. The view made by Wilde (2019) regarding knowledge architecture is that, nothing is what knowing than it being taught

1.3.2 Purpose of Knowledge Architecture

The purpose of knowledge architecture could be regarded as diverse and general depending on the approach given to it. Wilde (2019) notes that since knowledge architecture tries to under-study the technique of building imaginative knowledge residual in the mind, it therefore means everything that concerns the purpose of knowledge architecture is for creation of new knowledge because the created design is from the mind.

The purpose of knowledge architecture is for procedural application of skills and knowledge, assessment of work practices and productivity, organizational growth and transformation, expressions, constructions, environmental beautification, settlement, nomadic practices, three-dimensional connection, natural world views, societal edifices, climate change, historical building, ceremonies, and artistic sensibility (Wilde, 2019).

Another point to note according to Wilde (2019) when it comes to knowledge architecture is the appropriateness of the work through which human beings make us of it, compliance to human activities, steadiness and permanence of work's construction, communication of experience and ideas, relativity to social role, expressive and immense usefulness of the mind, and equality of duties. knowledge architecture expresses concern over systems used in the organization, business contexts, organizational operations and independent application of tacit knowledge. Knowledge architecture has resulted in proper representation of information and knowledge acquisition and utilization in all sphere of human endeavours.

Fig 72: Architecture Based on: (Tucker and Debrosse, 2003).
https://www.scitepress.org/Papers/2016/59160/pdf/index.html

The unit gave insights about the understanding of knowledge architecture and it made us to know that know-how is fundamental when dealing with how to create a knowledge architecture. This would help the creator to form basis of how to capture, unify, edit and use other team-members relevant knowledge assets for new knowledge meant in solving the organization problem. The essence of knowledge architecture is to have a good imaginative representation in the physical form based on what needs to be built. This result to the use of tacit type of knowledge in the creation of the organizational structure and work activities.

1.4 Summary

This unit established that knowledge architecture implies the procedures which recognizes application of the know-how in forming, capturing, unifying, editing and using the relevant knowledge assets for creation of new knowledge for better representation in the organization. Tacit type of knowledge is crucial when considering the creation of imagination that is represented in the physical form. Certain purpose of procedural application of skills and knowledge, assessment of work practices and productivity, organizational growth and transformation, expressions, constructions, environmental beautification, settlement, nomadic practices, three-dimensional connection, natural world views, societal edifices, climate change, historical building, ceremonies, and artistic sensibility are most imperative when developing a knowledge architecture.

1.5 Glossary

1. Knowledge architecture tries to under-study the technique of building imaginative
2. The purpose of knowledge architecture is for the creation of new knowledge because the created design is from the mind.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Identify the KM models
2. How would the KM model support the development of knowledge architecture?

Assignment File

1. Discuss the definition of knowledge architecture as stipulated by scholars identified in this unit?
2. Why do you think the purpose of knowledge architecture is significant?
3. What do you understand by the design/structure of knowledge architecture?

1.6 References/Further Readings

Babar, M. A., & Gorton, I. (2007, May). A tool for managing software architecture knowledge. In *Second Workshop on Sharing and Reusing Architectural Knowledge-Architecture, Rationale, and Design Intent (SHARK/ADI'07: ICSE Workshops 2007)* (pp. 11-11). IEEE. https://dl.acm.org/doi/abs/10.1109/SHARK-ADI.2007.1

Collins P, (2022). Architecture, https://www.coursehero. com/file/ 93623178/ Architecturedocx/

Glossary Gartner (2022), Information Technology, Gartner Glossary, Knowledge Architect,https://www.gartner.com/en/information-technology/glossary/knowledge-architect

Kaipa, P. (2000). Knowledge architecture for the twenty-first century. *Behaviour & information technology*, *19*(3), 153-161. https://www.researchgate.net/publication/247494897_Knowledge_architecture_for_the_twenty-first_century

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1.7 Possible Answers to Self-Assessment Exercise

1. The identified KM models is the SECI KM model
2. The KM model uses the KM initiatives deposited in the human brain in the support of the development of knowledge architecture

UNIT 2 DESIGN/STRUCTURE AND SEGMENTS OF KNOWLEDGE ARCHITECTURE

Unit Structure

2.1 Introduction

In the previous module 4, unit 1, we considered the definition, purpose, design/structure and segments of knowledge architecture. In the present module 4, unit 2, we shall be looking at the design/structure and segments of knowledge architecture

2.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:
Describe the Design/Structure and Segments of Knowledge Architecture

2.3 Design/Structure and Segments of Knowledge Architecture

The design/structure and segment of knowledge architecture vary in context, content and what it hopes to achieve. Some of the design/structure and segment of knowledge architecture represented below vary on what neds to be accomplished in the organization. The nature of knowledge architecture brought about the different kinds of design and representation of knowledge in this unit.

This is in relation to the present goals of the organization

Fig 73: Fact Information Knowledge

Therefore, what students should understand in this segment is how can they represent knowledge in diverse form taking examples from the representation of image we have in this unit. This would help them understand and appreciate the design/structure and segment of knowledge architecture.

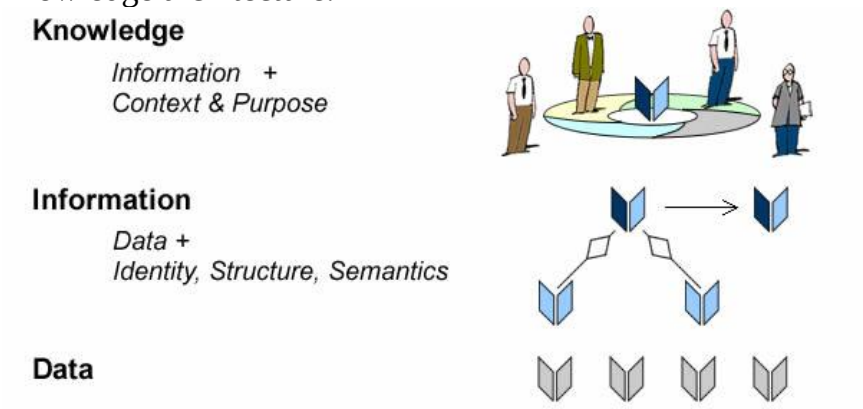

Fig 74: From Data to Knowledge
https://caminao.blog/knowledge-architecture/

Fig 75: Signals are physical events with open-ended interpretations
https://caminao.blog/knowledge-architecture/

Fig 76: Information must be timely, understandable, and relevant
https://caminao.blog/knowledge-architecture/
Knowledge management are mapped such that knowledge form the information footprint in terms of reliability (source, accuracy, consistency, obsolescence, etc) and risks.

From information to knowledge

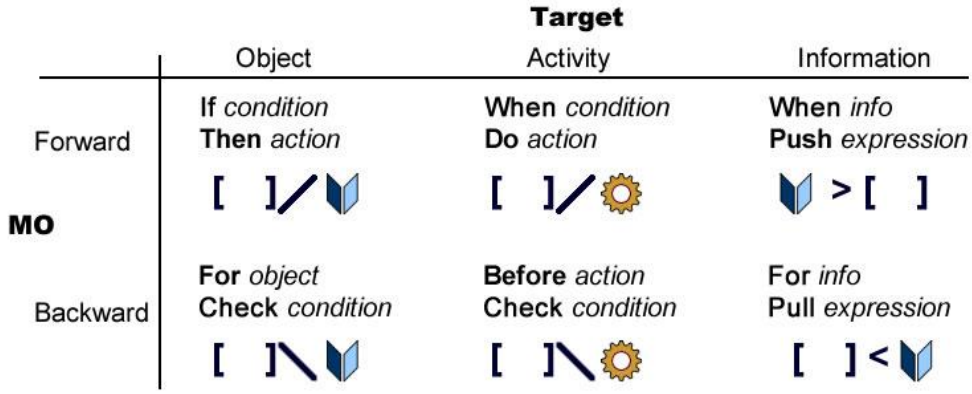

Fig 77: Standard Rules
https://caminao.blog/knowledge-architecture/

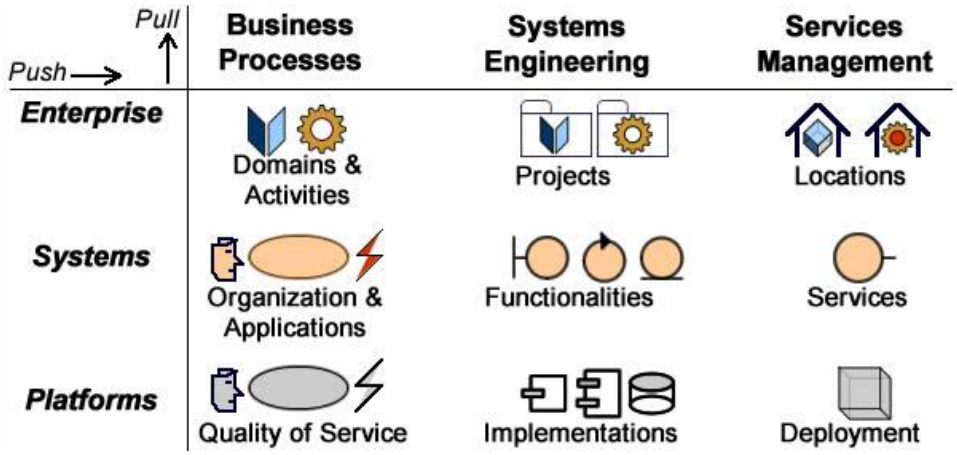

Fig 78: Knowledge of Architectures, Architecture of Knowledge
https://caminao.blog/knowledge-architecture/

Fig 79: Knowledge Architecture and Shearing Layers: strategy at leisure, time for plans, real-time operations

https://caminao.blog/knowledge-architecture/

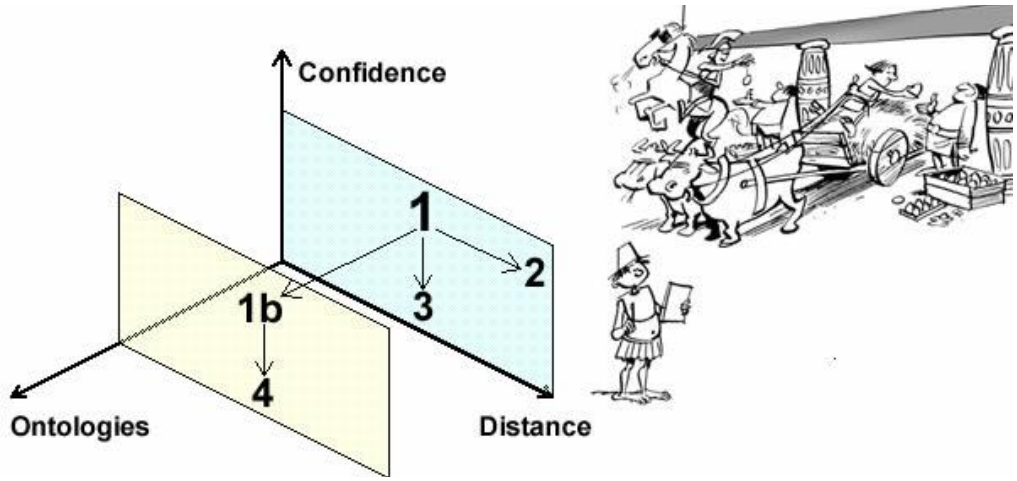

Fig 80: Observed facts (1), deductions (2), projections (3), transposition (1b) and hypothesis (4).
https://caminao.blog/knowledge-architecture/

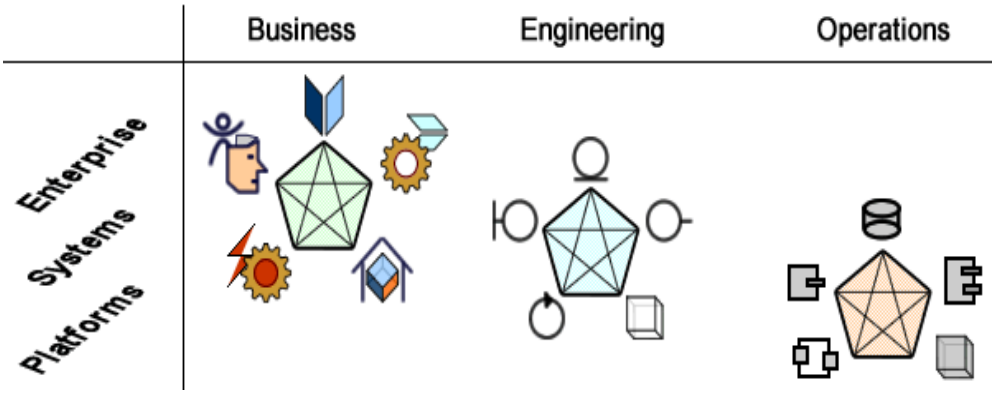

Fig 81: Capabilities can be defined across architecture layers with regard to business, engineering, and operational processes
https://caminao.blog/knowledge-architecture/

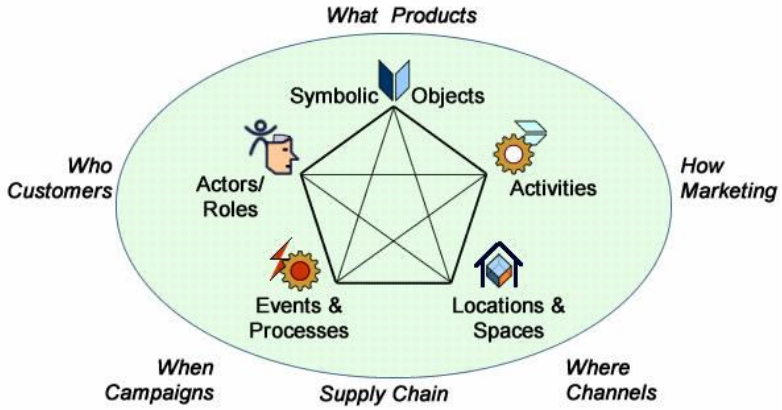

Fig 82: How to bridge the gap between big data and enterprise information models
https://caminao.blog/knowledge-architecture/

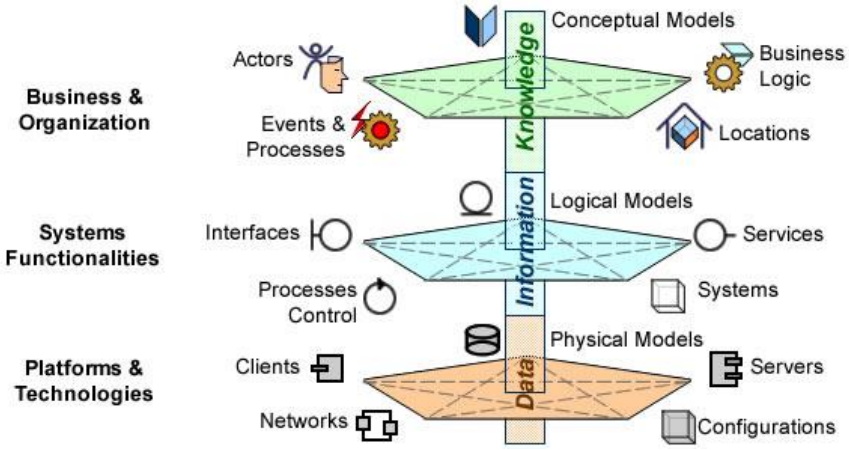

Fig 83: The Pagoda Architecture Blueprint is derived from the Zachman's frameworks
https://caminao.blog/2019/01/02/squared-outline-layers/

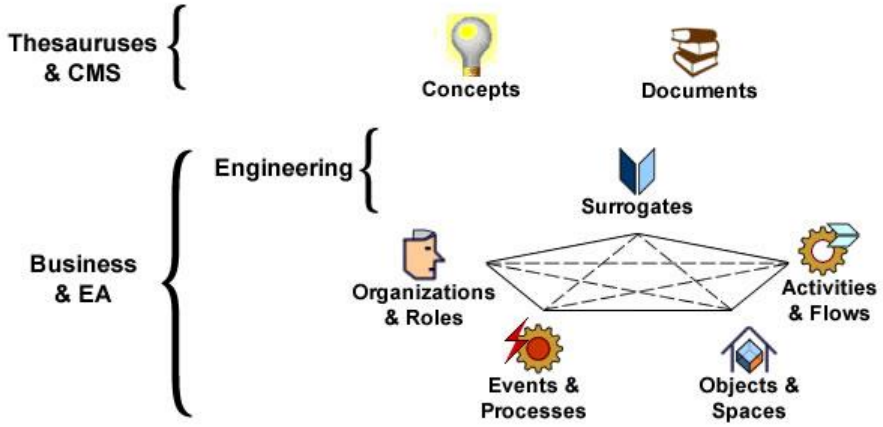

Fig 84: Ontologies: Purposes & Targets
https://caminao.blog/enterprise-architecture/ea-maps-territories/caminao-unified-architecture-framework-profile-uafp/

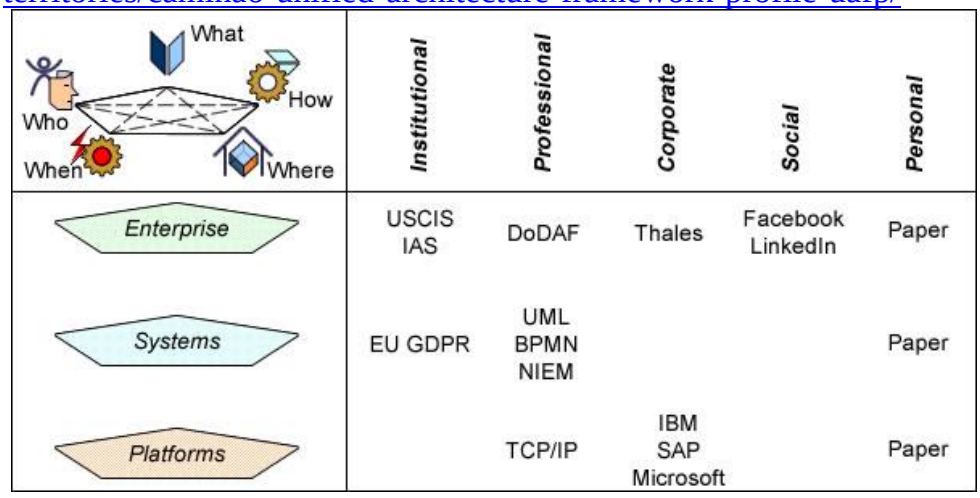

Fig 85: Ontologies, capabilities (Who,What,How, Where, When), and architectures (enterprise, systems, platforms).
https://caminao.blog/enterprise-architecture/ea-maps-territories/caminao-unified-architecture-framework-profile-uafp/

From data analysis to deep learning

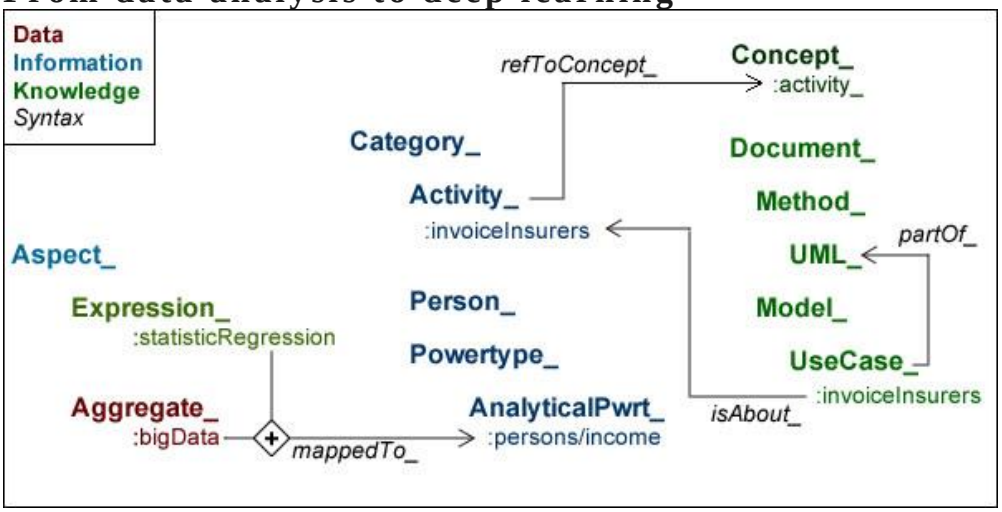

Fig 86: Knowledge is the ability to make differences
https://caminao.blog/knowledge-architecture/

Architectural knowledge comprises of architecture design along with design decisions, expectations, context, and other influences that regulate why a particular solution is the way it is. Most architectural knowledge typically remains hidden, since tacit in the heads of the architects. Knocking organized relates to different ontologies and the reason the types of architecting tasks can be supported, and how this can be done.

Interesting it could be deduced that the design/structure and segment of knowledge architecture cannot be overemphasized considering varied context, content of knowledge that need to be built and work description that should be accomplished. It is important to note that the role played by the design/structure of the knowledge architecture is what brings the beauty of the knowledge already built. The library and information center or organization where the knowledge architecture resides indicate the high-quality of tasks or performs required of the architectural display position. This implies that there is need for proper harnessing to have all necessary facilities to have a resounding and strong architectural design.

2.4 Summary

It was established in this unit that the design/structure and segment of knowledge architecture vary in context, content and what it hopes to achieve. The reason is that, architectural knowledge has shown to comprises different design created to influence and regulate finding solution to how knowledge grow. It can be deduced from the different image of knowledge architecture created that the information passed in the architecture work is hidden if it is not well studied to see what it portrays. Therefore, architectural knowledge should naturally showcase hidden treasure that must be appreciated irrespective of the

circumstances. This would help understand the different ontologies represented in the architectural tasks.

2.5 Glossary

1. The design/structure and segment of knowledge architecture are the design/structure used in different architectural representation.
2. Architectural knowledge remains hidden until proven into action as tacit is the heads of the architects.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Why is the development of the design of knowledge architecture is important in the organization?
2. How should the structure of the knowledge architecture look like when designing

2.6 References/Further Reading

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Babar, M. A., & Gorton, I. (2007, May). A tool for managing software architecture knowledge. In *Second Workshop on Sharing and Reusing Architectural Knowledge-Architecture, Rationale, and Design Intent (SHARK/ADI'07: ICSE Workshops 2007)* (pp. 11-11). IEEE. https://dl.acm.org/doi/abs/10.1109/SHARK-ADI.2007.1

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Glossary Gartner (2022), Information Technology, Gartner Glossary, Knowledge Architect,https://www.gartner.com/en/information-technology/glossary/knowledge-architect

Wilde, O (2019). Knowledge architecture, https://caminao.blog/knowledge-architecture/

2.7 Possible Answers to Self-Assessment Exercise

1. The development of design/structure of knowledge architecture is important in the organization because it helps to bring about a transformative architectural design required in functional operation ability of employee.

2. The structure of the knowledge architecture should look like a better design that capture the logo or representation of what the organization entails.

UNIT 3 REQUIREMENTS, ENTERPRISE, ISSUES IN DESIGNING ENTERPRISES IN KNOWLEDGE ARCHITECTURE AND IMPLICATIONS OF ETHICAL ISSUES IN KNOWLEDGE MANAGEMENT

Unit Structure

3.1 Introduction

In the previous module 4, unit 2, we considered the definition, and purpose of knowledge architecture. In the present module 4, unit 3, we shall be looking at the requirements, enterprise, issues in designing enterprises in knowledge architecture and implications of ethical issues in knowledge management.

3.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Explain the requirements, Enterprise, and Issues surrounding the designing of enterprises in knowledge architecture
- Discuss the implication of ethical issues in knowledge management

3.3 Requirements, Enterprise, Issues in Designing Enterprises In Knowledge Architecture And Implications Of Ethical Issues In Knowledge Management

3.3.1 Requirements in Knowledge Architecture

By requirements we imply the expectation, and determinants of what needs to be in place before knowledge architecture could be accomplished or carried out in the organization. Xia and Rao (1999), established that, the intelligent operation support systems that is embedded in the application systems should align with the system

architecture before the system could work properly. van Gent, Aigner, Beijer, Jepsen and La Rocca (2020) refers to the capability of the knowledge architecture having future and prospect to sustain any organizational structure provided the architectural design has such strength. This whole process is evolving based on the requirement of generating new knowledge.

Li (2020) advices that, without a suitable knowledge architecture, user's requirement on how the systems would function cannot be determined. This result to output expected when information and knowledge has been gathered for its development or constructed. van Gent, Ciampa, Aigner, Jepsen, La Rocca and Schut (2017 underline the structure of the knowledge architecture, because certain framework of planning and execution of blueprint, where the use of tools, methods and structure are used before a suitable and sustainable knowledge architecture could be made. The reason for this analogy was based on the construction that made up the knowledge architecture.

Technology play a key role when it comes to building a knowledge architecture considering the dynamism across all sphere of human endeavours (Liang & Avgeriou, n.d). The reason technology plays a key role in building a knowledge architecture was due to complex activities and broad nature of the system having voluminous architectural structure and design (Liang & Avgeriou, n.d). Some of the technologies are developed such that, they could be used off-the-shelf while others are applied within the experimental setting. The reason for using some off-the-shelf while others are within the experimental setting was based on the features of the knowledge architecture (Liang & Avgeriou, n.d).

3.3.2 Issues in Designing Enterprises in Knowledge Architecture

To understand the issues surrounding designing enterprises in knowledge architecture very well, it is imperative we grasp the meaning of enterprise knowledge architecture. By enterprise knowledge architecture, we refer to the part of enterprise architecture procedure that defines the set of necessities, values and models of the knowledge architecture. With this in mind, consideration to the present and future exchange of knowledge becomes the priority of constructed architecture.

Other issues surrounding designing enterprises in knowledge architecture are represented in the image or diagram below.

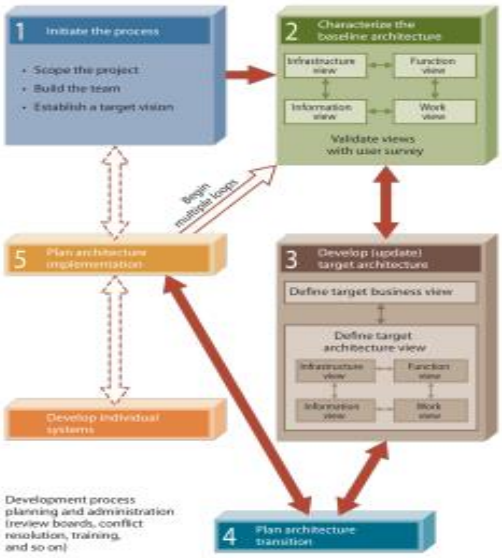

Fig 87: EA process by Armour et al. (1999b)
https://www.researchgate.net/figure/EA-process-by-Armour-et-al-1999b_fig1_220893843

Designing enterprises in knowledge architecture require a holistic approach where the knowledge model capture the tacit type of knowledge required for the layout. In the holistic approach, there is a reflective view that has to do with how knowledge is processed, and used to solve organizational problem. This brought about integration, management and re-use of the created knowledge architecture in the knowledge systems. Some of the issue's worth mentioning regarding designing enterprises in knowledge architecture is strengthening research so as to broaden the scope of how the structure is built (Gregor & Legény, 2019). There were issues of structure, models, people, stream of symbols, design, invention, teamwork, construction, interpretation (Shishkov, Bogomilova, & Garvanova, 2020) among other factors. These are all inclusive in designing enterprises in knowledge architecture. Based on the connotation given to knowledge architecture being tactical management style used for data resources in context-aware framework, there is the provision for connection between explainable view of organization and how data, information and knowledge are used for improved decision-making among employees.

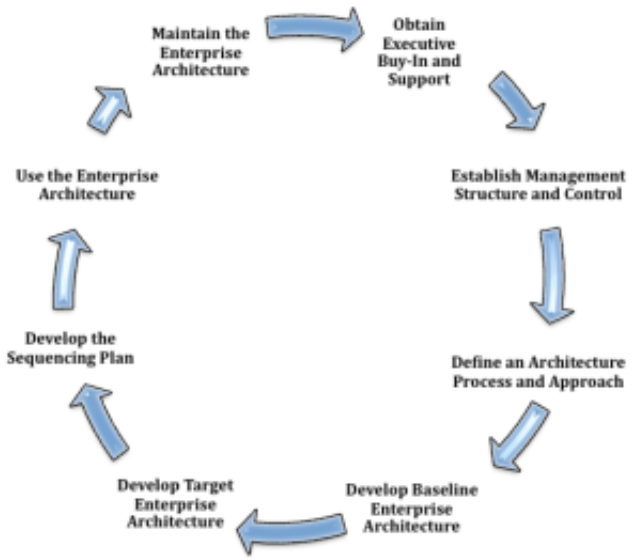

Fig 88: The FEAF EA process model (Chief Information Officer Council, 2001)
https://www.researchgate.net/figure/The-FEAF-EA-process-model-Chief-Information-Officer-Council-2001_fig2_220893843

Franklin (2019) refers to the following as consideration for designing enterprises in knowledge architecture are: recognizing big data as a priority in the organization, need not to lose sight of increasing complexity, getting fused with the mission of the organization, understanding and applying different datasets, appropriating clarity in decision making. These are bound to afford knowledge workers the opportunity supports each other without necessarily informing them. There is the tendency that when these issues in designing enterprises in knowledge architecture are fully considered, certain knowledge would be unlock, resulting to discovery of unexpected trends of innovation (Franklin, 2019). Therefore, employees should talk to each other to understand what enterprises in knowledge architecture entails and apply existing source of data to discover how the knowledge architecture works. The reason was based on the enormous task the knowledge architecture is capable of doing in the organization.

Fig 89:: TOGAF ADM (The Open Group, 2009)
file:///C:/Users/USER/Downloads/EnterpriseArchitectingProblemsReview-v8r4-FINAL.pdf

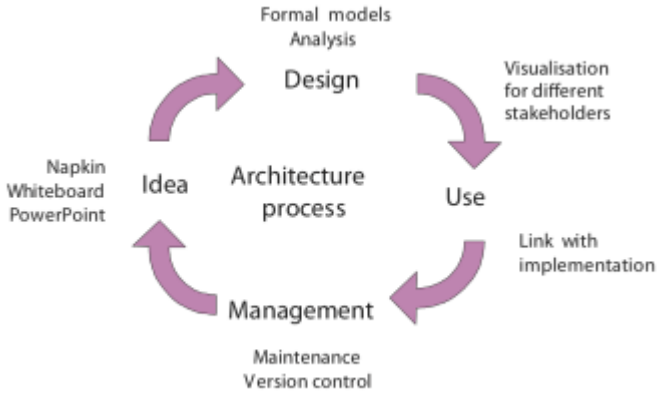

Fig 90: EA process model by Lankhorst (2005)
https://www.researchgate.net/figure/EA-process-model-by-Lankhorst-2005_fig4_220893843

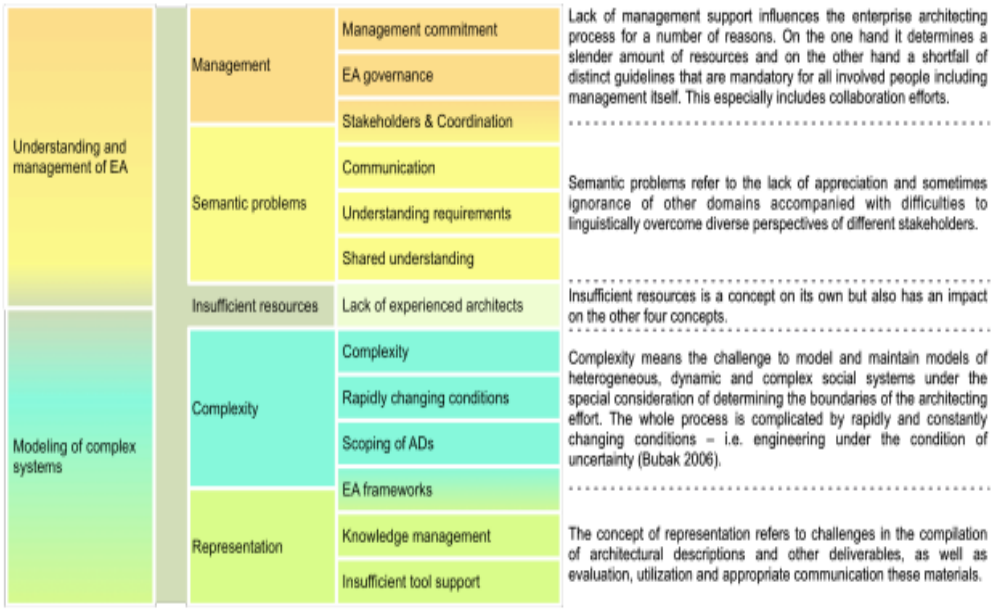

Fig 91: Categorization of Enterprise Architecting Issues
Figure Categorization attempt of concepts emerging from identified codes
file:///C:/Users/USER/Downloads/EnterpriseArchitectingProblemsReview-v8r4-FINAL.pdf

3.3.3 Implications of Ethical issues in Knowledge Management

By implications of ethical issues in knowledge management, we refer to some of the suggestions through which harnessing, harvesting, processing, storing and sharing of knowledge could be improved among employees in the organization. The implication of ethical issues in knowledge management according to Rechberg and Syed (2013) implies deceasing the effort of sharing information and knowledge.

By this we are protecting the privacy of the intellectual capital of the knowledge carriers. The essence of such protection is to have access to the knowledge when it is most needed being that the drivers of the organization and work productivity depends largely on the tacit type of knowledge in knowledge management.

There are other forms of ethical issues associated with knowledge management and this comprises of fight about knowledge ownership, as many have claimed that knowledge is power (Akhavan, Ramezan, & Moghaddam, 2013), therefore having its ownership become important as the owner believed he/she would use it to advance his position and way of life. Knowledge has proven to occupy 80% of the organization asset in whatever they do KPMG (2003: 8). It is regarded as a strategic asset that cannot be undermined. Most of the created knowledge are used by others for one purpose or the other (Baird & Henderson, 2001; Teece, 1998). Therefore, there is need to consider its value, since most of how

it is evolved is rooted in patent. The issue of copyrights, and organizational entities are very important because many people claim to possess knowledge when they do not have such right.

One other important factor which is crucial in this regard is having a standardized policy that aligns with the ethical issues associated with knowledge management. Policy is crucial to guide against misuse and abuse of the knowledge of patent and copyright. The consideration to social settings, databases, software and research and development (Granstrand, 1999), required to bring about infiltration of employee innovations is crucial when dealing with ethical issues of knowledge management (Dzinkowski, 2000), since knowledge remain the brainpower of individuals and the organization (Stewart, 1997).

The requirements, enterprise and issues surrounding the designing of enterprises in knowledge architecture is crucial in the organization. The requirements of enterprise and issues surrounding designing the enterprises in knowledge architecture are significant in relation to the set objectives which the organization profess considering the diversities of skills expertise of staff members. It is important to note that designing enterprises in knowledge architecture require a holistic approach where tacit type of knowledge and model are for the underlining mechanism used to process, store and solve organizational problem. This brought about some of the integration, management and re-use of created knowledge architecture in the knowledge management systems in organization. It was established that the implication of ethical issues in knowledge management emphasis that owners of created knowledge where able to refer to some of the suggestions through which harnessing, harvesting, processing, storing and sharing of knowledge could be improved among employees in the organization.

3.4 Summary

This unit established that the requirements surrounding the enterprise, and issues of designing enterprises in knowledge architecture cannot be devoid in any organization because those requirement serves as determinants towards knowledge architecture. The intelligent operation carried out in the organization result to the support system which employees offer in relation to embedded application systems used to administer job description. The functionality surrounding tasks depends on the capability of the knowledge architecture having futuristic vision to sustain the organizational structure based on the provision of the architectural design in the knowledge architecture. Therefore, it becomes imperative to take the design enterprises in knowledge architecture seriously. This is because the implication is design enterprises in knowledge architecture considering the knowledge model

used to capture the tacit type of knowledge required for the layout. Another thing worth looking at is knowledge strength which the structure of the knowledge architecture has in relation to its built. This unit concludes that, the ethical issues associated with knowledge management gave credence to the contest about knowledge ownership, used as s power over others in the organization.

3.5 Glossary

1. The consideration for designing enterprises in knowledge architecture are recognizing big data as a priority in the organization, need not to lose sight of increasing complexity, getting fused with the mission of the organization, understanding and applying different datasets, appropriating clarity in decision making.

2. Ethical issues associated with knowledge management comprises the fight about knowledge ownership, as many have claimed that knowledge is power

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Why do you feel it is important to have the requirement of sound enterprise knowledge architecture in the organization?
2. What is the requirement of enterprise knowledge architecture

Assignment File
1. Discuss the issues associated with having enterprises in knowledge architecture?
2. What is the implication of ethical issues in association to knowledge management?

3.6 References/Further Readings

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Van Gent, I., Ciampa, P. D., Aigner, B., Jepsen, J., La Rocca, G., & Schut, J. (2017). Knowledge architecture supporting collaborative MDO in the AGILE paradigm. In *18th AIAA/ISSMO multidisciplinary analysis and optimization conference* (p. 4139). https://arc.aiaa.org/doi/abs/10.2514/6.2017-4139

Rechberg, I and Syed, J. (2013). Ethical issues in knowledge management: Conflict of knowledge ownership, *Journal of Knowledge Management*, 17(6), 10.1108/JKM-06-2013-0232, https://www.emerald.com/insight/content/doi/10.1108/JKM-06-2013-0232/full/html?casa_token=VQkmnLRM4MUAAAAA:JRMYkN7-01ecA38S-3zjzP_F7bZJQEuT3_zNXQdUpkaGqLwUfTm7wVVkk86t9J7szIe1RTwef9AKCuc5yLQ1qdrypQXx878miWm0kAU_jBx55JT2yF8

3.7 Possible Answers to Self-Assessment Exercise

1. Having a resounding enterprise knowledge architecture is important in the organization because it helps to build a knowledge architecture due to the dynamism across all sphere of human endeavours. This is in accordance with the complexity of activities and broad nature of the system having voluminous architectural structure and design.

2. Planning and making use of tools, methods and structure before execution of the blueprint are suitable and sustainable of knowledge architecture.

MODULE 5 MEASUREMENT OF THE IMPACT OF KNOWLEDGE MANAGEMENT PROGRAMMES

UNIT 1 OVERVIEW OF KNOWLEDGE MEASUREMENT AND PURPOSE OF MEASUREMENT OF THE IMPACT OF KNOWLEDGE MANAGEMENT

Unit Structure

1.1 Introduction

In the previous module 4, unit 3, we considered the requirements, enterprise, and issues in designing enterprises in knowledge architecture and implications of ethical issues in knowledge management.

In the present module 5, unit 1, we shall be looking at knowledge measurement and purpose for measuring the impact of knowledge management.

1.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

- Explain knowledge measurement and purpose for which it is being measured since the impact of knowledge management is most significant in the organization
- Implication of measuring knowledge management in the organization

1.3 Knowledge Measurement

Drawing analogy from the emphasis had in this module based on the exposition of different authors from diverse context and research background, it could be reiterated that, knowledge Management (KM) is not a new phenomenon globally. The understanding surrounding what knowledge Management is capable of doing brought its measurement in the organization.

Knowledge measurement has to do with the act of measuring the practices of individual and organizational knowledge in the organization with regards to placing numerical value on it (Ragab, & Arisha, 2013). Ahmed, Lim & Zairi (1999) note that knowledge measurement implies measuring the impact of the evidence, applied knowledge and extent to which knowledge has been used in diverse context and content.

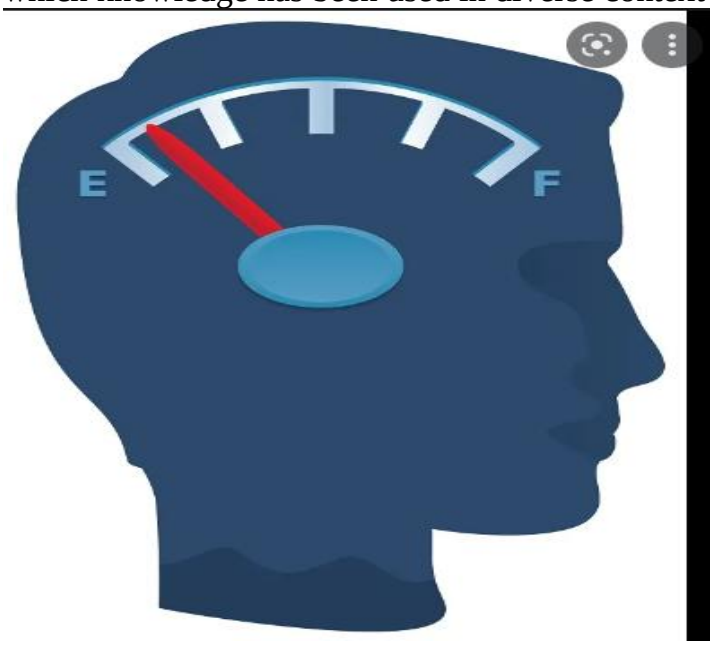

Fig 92: Measuring knowledge and understanding the context
https://understandingcontext.com/2014/12/measuring-knowledge/measuring-knowledge-6/

What is being measured in the organization could be regarded as work performance, procedures used in carrying out the act, policy and tools that enable the functionality of the activities (Ragab, & Arisha, 2013). Therefore, in order to measure knowledge, we should be able to see the impact it has made in the organization and employees based on what it has been used for within and outside. Sometimes, it might be difficult to measure knowledge from the ordinarily human perspectives but having evaluated the extent to which knowledge has been acquired, processed, stored, harvested and used for accomplishment of tasks, we are able to tell its useful and what it has been used for in the organization (Kianto, Ritala, Vanhala, & Hussinki, 2020). Issues surrounding, job description, developing policy, work plan, evaluation and monitoring of staff jobs,

organizing of meetings among others could be seen from the perspectives of what knowledge has been used for in the organization (Kianto, Ritala, Vanhala, & Hussinki, 2020). Having accomplish some of these tasks, knowledge is measured in this regard.

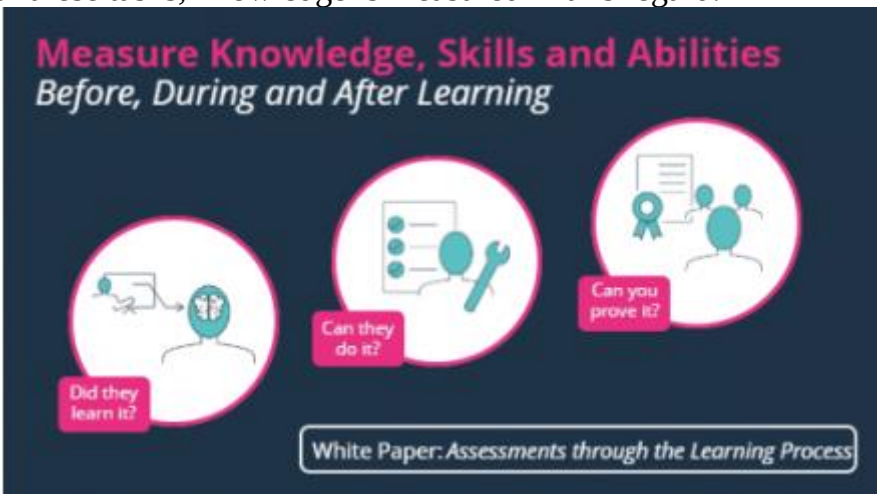

Fig 93: Measuring knowledge, skills and abilities
https://www.questionmark.com/measure-knowledge-skills-and-abilities-before-during-and-after-learning/

The measurement of knowledge cannot be removed from any organization and activities of work processes globally. This implies that the validation and reliability of innovation, tasks, emphasis made among colleagues, condition of services that propel further strengthen and result accounted are surrounded by the measurement had from organizational products and services. A clear picture of another scenario when it comes to knowledge measurement according to Lopez, Hartz, Sammis, Hofer-Alfeis, Wilson, and Raybourn (2001) is the determining the universality and impact which employees has made in the organization based on their contribution and work performance. Without the effort of employees, every organization would not have been where they are today globally, hence the need to recognize and appreciate extent to which employees push to sustain organization through their personal tacit knowledge application.

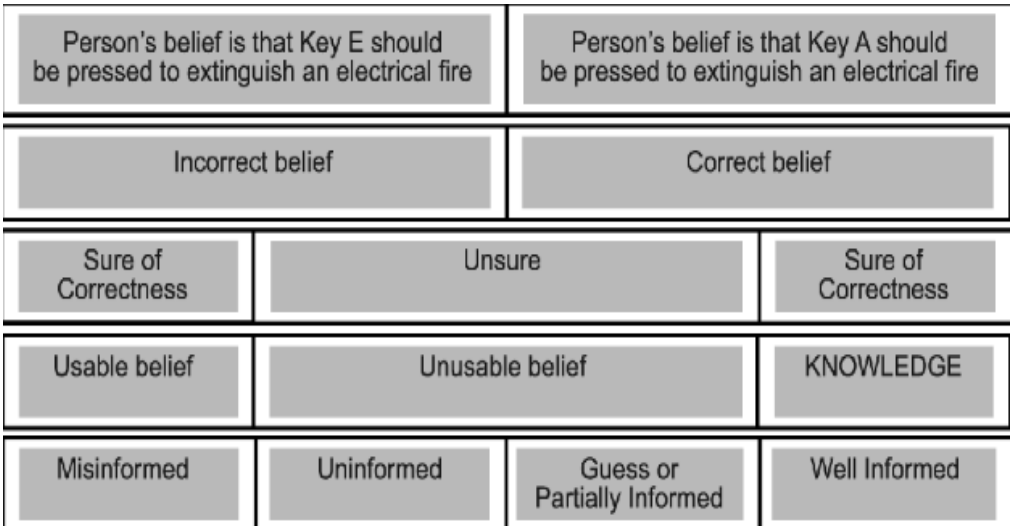

Fig 94: What Knowledge measured could do
https://www.semanticscholar.org/paper/The-concept-of-knowledge-and-how-to-measure-it-Hunt/d9d90efecf1d59e8a0c8f39be453d94589c6a605

The measurement of knowledge in the organization has created a different scenario, where employees have to put in more than expected before their work performance are usually monitored to ascertain if they have performed to expectation (Kimberly Lopez et al, n.d). This indication implies that for everything that happens in the organization it is being measured hence employees are able to determine the extent to which the organization have transformed from where they started from to present condition. The measurement of knowledge involves application of initiatives, evaluation, assemble resources, and create a conducive atmosphere to work.

Video https://www.youtube.com/watch?v=Ez-1zBgCm8E

Video https://www.youtube.com/watch?v=YIMulToefqk

Video https://www.youtube.com/watch?v=H8tuH4LT7js

Video https://www.youtube.com/watch?v=tCFONOAPM4s

1.4 Purpose for Measuring the impact of Knowledge Management

The purpose for measuring the impact of knowledge management differ from one organization to another based on the product and services which the organization are faced with on daily basis. Ahmed, Lim and Zairi (1999) note that organization measure their knowledge based on set objectives and goals. The reason that made Ahmed, Lim and Zairi (1999) aligns the measurement of knowledge to the set objectives and goals is that, it would make the organization and those working under it to be more focused, such that, achieving greater heights become the priority of the organization.

When addressing the measurement of knowledge, there are certain element that comes to mind and these comprises of size in terms of work or tasks carried out by employees, what the knowledge was used for in the organization and change management that has taken place in the organization (Al Ahbabi, Singh, Balasubramanian, & Gaur, 2018). These are various effect on the procedures which employees used in responding to the organizational needs in the system.

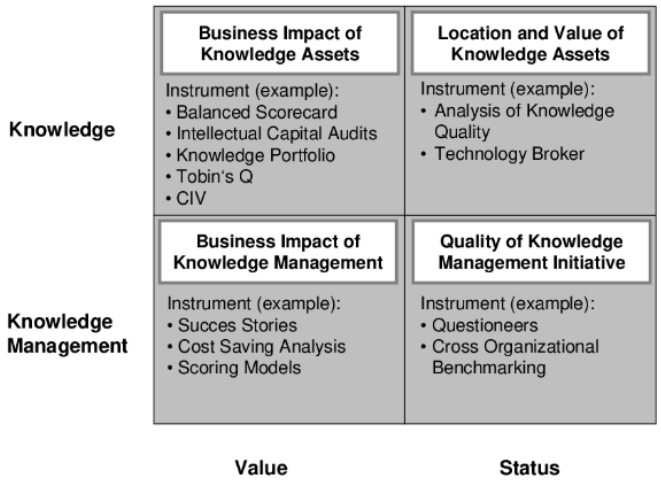

Fig 95: Purpose of measuring knowledge
https://www.semanticscholar.org/paper/Measuring-the-Performance-of-Knowledge-Management-Resatsch/578e570a50722b1820bbeea487b11dee1296725d/figure/4

The measurement of knowledge in the organization draw inference to control, evaluation, and improvement of documents and records used on daily basis. When issue with knowledge measurement is discussed in the organization, what come into mind is expression of numbers which employees are certain about and can be substantiated in numeral (Kianto, Ritala, Vanhala, & Hussinki, 2020). Another route through which it could be figured out is based on evidence or result seen in what employees have done in the organization. When action of job done is

unsatisfactory it therefore means no knowledge is shown to be measured. It is imperative to note at this point that, when quantifying knowledge among colleagues, what comes into mind is strategy, performance, increase, satisfaction, reducing cost, customers need among others.

Zhou and Fink (2003) and Capezzuoli and Jolly (2019), allude that, the purpose for measuring the impact of knowledge management is to find out the contribution which employees has made in the organization. It was further deduced that collaboration; response period accountability and various activities of work performance were part of the reasons to which the purpose of measuring the impact the knowledge management. In line with the above emphasis, Lindsey (2002), Chen, Huang and Cheng (2009) and Fard and Selseleh (2010) attest to tasks, capabilities, training, innovation, performance, and operation-ability and knowledge management systems. These are measured using multiple-choice test and or epistemetric method.

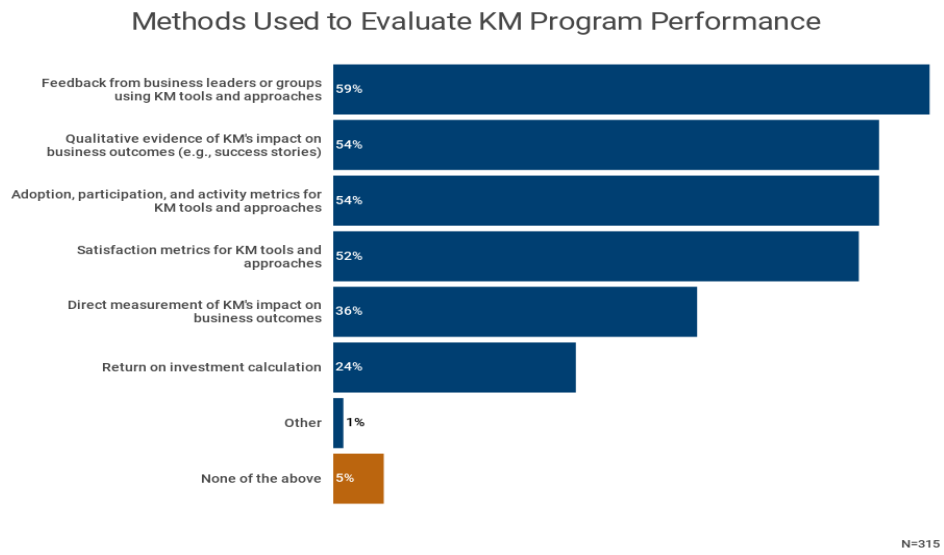

Fig 96: Impact of Knowledge measurement
https://www.apqc.org/blog/why-and-how-measure-your-knowledge-management-programs-performance

The essence of measuring tasks, capabilities, training, innovation, performance, and operation-ability and knowledge management systems as stipulated by Lindsey (2002), Chen, Huang and Cheng (2009) and Fard and Selseleh (2010) is to ascertain the effort which employees put into the organization throughout their years of working in the organization. What happens in this case is to determine what each employee is capable of doing through their tacit type of knowledge. Therefore, the purpose for which measuring the impact of knowledge of employees is significant because someone could determine what they

are able to do or accomplish in the transformation of the organization. The essence of the diagram below is to attest to the work performance which employees have been involved.

Knowledge measurement is most significant in the organization because it measures the practices of work performance from inputting data, harnessing information and applying tacit and explicit knowledge to accomplish tasks in the organization. This implies there is need to attach much importance to measuring individual and organizational knowledge. What is considered when measuring knowledge is the numerical value place on it. The numerical value emphasis on evidence, work performance, procedures used in carrying out the act, policy and tools that enable the functionality of the activities and extent to which knowledge has been created and used in the organization. Therefore, the purpose for measuring the impact of knowledge management cannot be undervalued because it differs from one organization to another based on different product and services faced with on daily basis.

1.5 Summary

This unit established that knowledge measurement encompasses measuring the practices of individual and organizational knowledge in the organization with regards to placing numerical value on it. What is being measured is the evidence, or result of tasks accomplished in relation to the exerted tacit and explicit knowledge used on daily basis by employees. There is no way knowledge measurement cannot be avoided in the organization because at the end of the day, the organization would like to assess whether their set goals and objectives are met. This is accordance with responsibility place on employees' hand to handle. For knowledge measurement task or function to be accomplished certain tools of people, policy, technologies, procedures would be required. These help in ensuring the evaluation of the extent to which knowledge has been acquired, processed, stored, harvested and used for accomplishment of tasks are sustained and become useful in the organization. Nonetheless the purpose for measuring the impact of knowledge management differ between individuals and organization since individuals and organization might not have the same organizational pursuit and goals.

1.6 Glossary

1. Knowledge measurement is most significant in the organization because it measures the practices of work performance from inputting data, harnessing information and applying tacit and explicit knowledge to accomplish tasks in the organization

2. The essence of measuring tasks, capabilities, training, innovation, performance, and operation-ability and knowledge management systems is to ascertain the effort which employees put into the organization

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. What implication does knowledge measurement has over colleagues in the organization?
2. How can staff members knowledge be measured over a period of time

Assignment File

1. Discuss knowledge measurement and the purpose for which measuring the impact of knowledge management is significant in the organization
2. What is the implication of measuring knowledge management in relation to tasks executed in the organization

1.7 References/Further Reading

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PiTOpQ_abVhvMWY68xRDWbDKzFsKfh4v6C5vSLLO3aj6QQ9c5QuZayct_6alyrsN3zfV2x1GUypeONn_kDJlHzGkGIVW9Nwg9dc

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1.8 Possible Answers to Self-Assessment Exercise

1. The implication which knowledge measurement has over colleagues in the organization is that, it helps to measure what each employee are capable of doing in strengthening the work force and how much they have also contributed leading to transformation or growth of the organization, this implies that if employees do not put in much of their time and expertise, the result of the organization will be minimal.

2. Staff members knowledge can be measured over a period of time based on the tasks they have performed. This task is measured with other responsibility assigned to them which is in accordance with getting the best out of them.

UNIT 2 IMPLEMENTING KNOWLEDGE MANAGEMENT PROJECTS

Unit Structure

2.1 Introduction

In the previous module 5, unit 21 we considered knowledge measurement and purpose for measuring the impact of knowledge management.

In the present module 5, unit 2, we shall be looking at implementing knowledge measurement projects, which is most significant for the organization, because projects are what sustain organization in terms of getting incentives.

2.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:

Explain how to implement knowledge measurement projects in the organization

2.3 Implementing Knowledge Measurement Projects

By implementing knowledge management projects, we imply strategies which could be applied in accomplishing certain projects that staff member is saddled with on daily basis. De Long, Davenport and Beers (1997) allude to different knowledge management project such as developing a framework, review of policy, aligning work performance of staff members with objectives, training and retraining of staff members where skills are transferred require the use and support of people, technology, and adherence to procedures. There is no organization that could function without implementation of knowledge management projects. Therefore, the initiatives of employees and technology play a significant role in accomplishment of knowledge management project in the organization. Knowledge management

projects comprises of unit of activity in the organization. The organization uses these projects to analysis cost of knowledge assets possess my employees or individuals (Pereira, Santos, Dias, & Costa, 2021). The essence of knowledge management project is to generate or create an environment where improvement of work performance is attained. Certain companies such as Skandia, Bank of Montreal, Hewlett-Packard corporation, and Dow Chemical have involved in different knowledge management project (Pereira, Santos, Dias, & Costa, 2021).

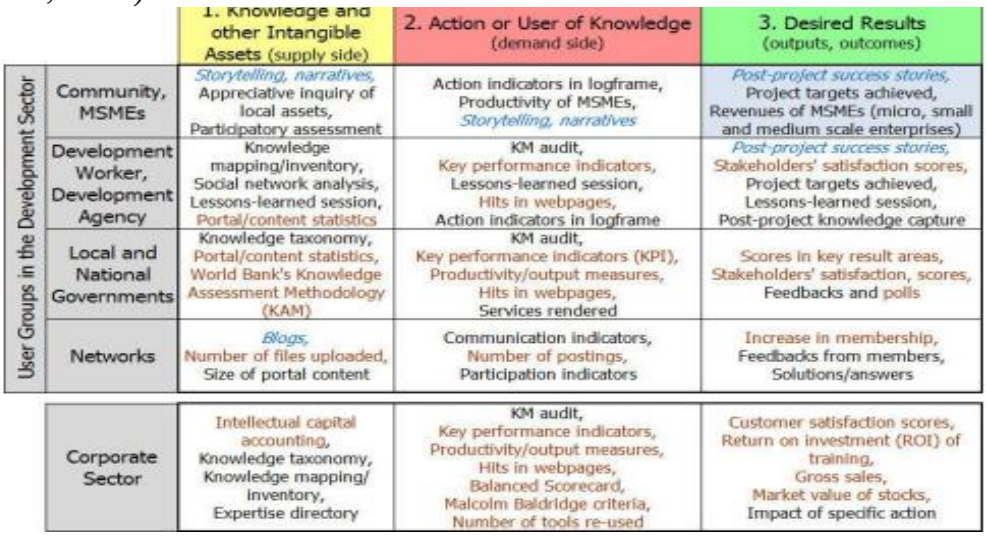

Fig 97: Implementing knowledge management projects in action
https://www.emergentworks.net/sites/default/files/ikmemergent_archive/090817-ikm-working-paper-3-monitoring-and-evaluation-in-knowledge-management-for-development.pdf

There are several knowledge management projects such as information management project, consultancy research project, operational management project, training and innovation projects among others too numerous to mentioned. The mentioned knowledge management projects could involve in different activities that may help their organization. For example, a satellite communications company would like to find out how to diminish its cycle time for manufacturing new cable launch vehicles through the re-use of pertinent pieces of prevailing product designs. Another knowledge management project which could be referred to Hewlett-Packard corporation is established on the basis that; they try to improve the superiority of the function of information technology such that employees or staff members could carry out their work operations very well. A Japanese competitor company created was meant to underpin the creation of auto parts suppliers of intelligence system, which are significant to the cost benefit business. The underlying principles of incorporating knowledge management projects in the organization is to ensure that knowledge is shared among colleagues or staff members. The shared knowledge helps to reinvigorate activities of work performance carried out by staff

members, where they apply their tacit type of knowledge (Davenport, De Long & Beers, 1998).

https://www.youtube.com/watch?v=XPdOeNcvBo0

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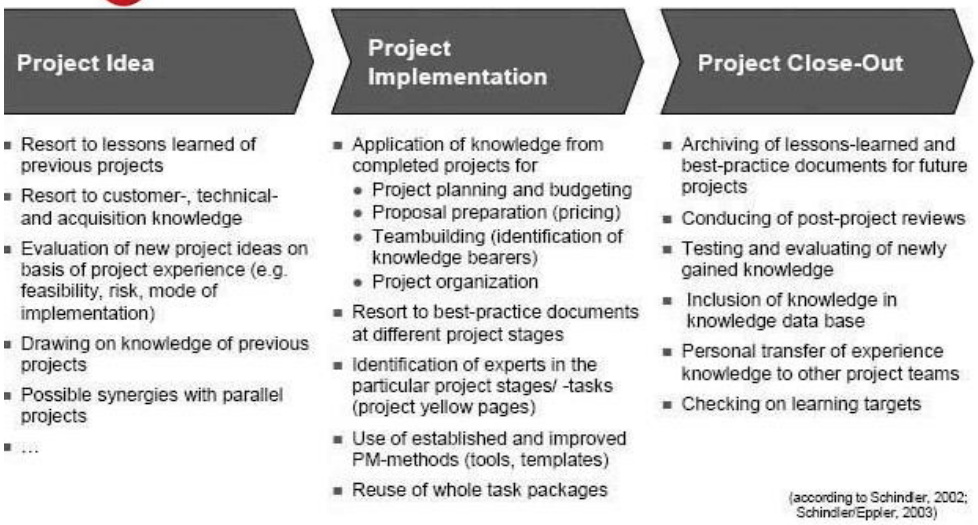

Fig 98: Implementing knowledge management projects
https://www.pmi.org/learning/library/project-knowledge-management-life-cycle-7137

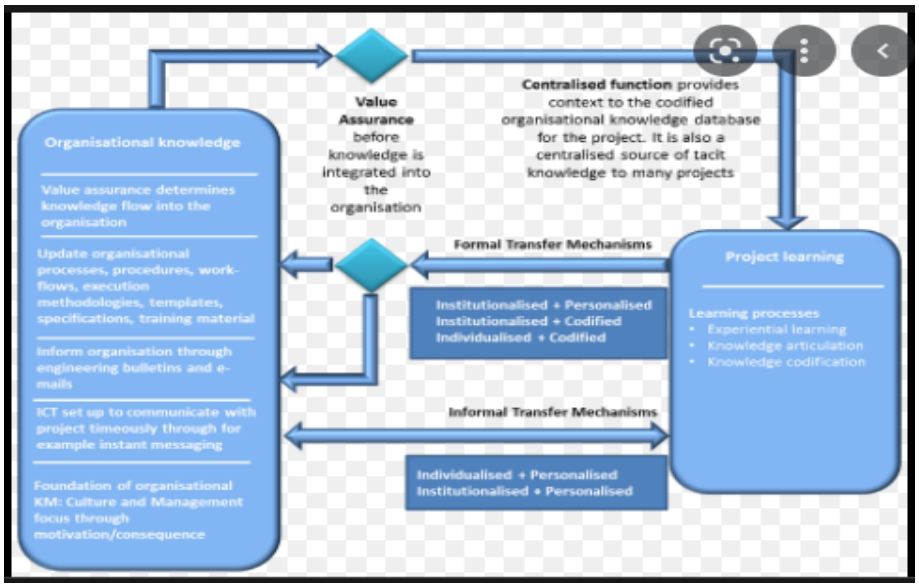

Fig 99: Implementing knowledge management projects
https://www.ownerteamconsult.com/knowledge-management-in-projects-based-organisations-part-2-exploiting-knowledge-capital/

The essence of the above-mentioned knowledge management projects is to unravel what each knowledge worker is capable of doing and how they would use their knowledge to improve and develop ideas. Cost benefits analysis was part of the discussion surrounding the reason why knowledge management project is important because in that regards, instead of hiring an expert to come do the work, colleagues with open hearts and willing to share their knowledge are able to solve such problem and other surrounding circumstances. The reason is that, usually when staff members are involve in different knowledge management projects they contribute their quota in terms of sharing responsibility and by so doing they unveil their knowledge unknowing to them. This has a lot of implication in the organization and to the staff members because that is also another way of marketing their capability in the organization. Knowledge initiatives are not easy to come by as such, it is in this kind of forum that colleagues share what they never thought about and it give a lot of credibility to both he staffs members and the organization.

There were other factors that could be attributed to why knowledge management project become significant in the organization and this comprises of the need to establish a goal and objectives that will guide the project appropriately, advance a change management plan, determine the process that could lead to having a success and better foundation of the knowledge management project, the need to get leaders involve in the project, assess the current state of the project, create the condition where colleagues capability would resonate, build an operational roadmap, thereafter implement the knowledge management project, assess its efficiency and find out modality for a continuous improvement of the projects (Fitzhugh, 2020).

Knowledge Management Projects in Study

Type of Business	Type of Knowledge	Primary Objective
High-tech manufacturer	Systems project management	Capture lessons learned
High-tech manufacturer	Researcher expertise	Have easy access to experts
High-tech manufacturer	Product marketing and support	Answer resellers' questions
High-tech manufacturer	Product development knowledge	Capture lessons learned
High-tech manufacturer	Multiple; product-oriented	Improve product development
High-tech manufacturer	Packaged system implementation	Improve subsequent projects
High-tech manufacturer	Educational offerings	Share experiences
High-tech manufacturer	Sales-oriented documents	Improve access from field
Consulting	Project, client, etc.	Leverage knowledge of entire firm
Consulting	Industry and consulting practice	Leverage knowledge of entire firm
Pharmaceutical	Drug development	Improve development process
Oil and gas	Tacit expert knowledge	Have video access to far-flung experts
Specialty chemicals	Product application knowledge	Improve sales and service
Chemicals	Patented knowledge	Reduce costs, improve returns
Military	Engagement lessons	Learn from experience
Knowledge services	Technical expertise	Provide access to experts
Automobile	Competitive intelligence	Improve access and awareness
Automobile	New car development	Avoid repeating mistakes
Advertising/direct marketing	Client/campaign knowledge	Increase knowledge awareness/use
National laboratory	Nuclear bomb-making	Capture expertise before it leaves
Software	Software development experts	Improve project assignment and education
Electronics	Best practices	Improve process performance
Bank	Lessons learned	Improve learning, avoid mistakes
Bank	Best practices	Improve process performance
Engineering & construction	Project designs and plans	Make projects more efficient
Insurance	Intellectual capital	Measure and publicize
Financial services	Office procedures	Open offices more quickly
Office equipment	No specific	Embed knowledge in strategy
Computer	Sales documents	Improve field access
Biotechnology	Multiple	Improve product development
Defense	Lessons learned	Improve manufacturing

Fig 100: Appendix Knowledge Management Projects in Study
https://www.google.com/search?q=Examples+of+knowledge+management+projects&rlz=1C1GCEA_enZA993ZA993&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjbiMv0tMP5AhXBnVwKHfngDfYQ_AUoAXoECAEQAw&biw=1366&bih=657&dpr=1#imgrc=yPVToMNrWwACPM

1. https://www.youtube.com/watch?v=wERiFFjkQ5Y

2. https://www.youtube.com/watch?v=OsrGRU62yB4

Implementing knowledge management projects require certain strategies which could be used in accomplishing certain projects that staff member is saddled with on daily basis. There are different knowledge management projects such as information management project, consultancy research project, operational management project, training and innovation projects, developing a framework, review of policy, aligning work performance of staff members with objectives, training and retraining of staff members where skills are transferred require the use and support of people, technology, and adherence to procedures. The mentioned knowledge management projects could involve in different activities that may help their organization. There is no organization that could function without implementation of knowledge

management projects. Therefore, the initiatives of employees and technology play a significant role in accomplishment of knowledge management project in the organization.

2.4 Summary

This unit emphasizes that to implementing knowledge management projects, several strategies are required or considered and this vary from one organization or individual to another. Certain projects require application of policy, technological tools and knowledge workers to apply their tacit type of knowledge in carrying out the functionality of the project. There are some projects that needed a formulated framework based on a review of policy, which aligns with work performance of staff members and objectives that drives training and retraining of staff members where skills required for transfer in the organization. There are several types of knowledge management projects such as information management project, consultancy research project, operational management project, training and innovation projects among others too numerous to mentioned. These knowledge management projects involve in different activities that may help the individual and organization.

2.5 Glossary

1. Knowledge management projects unravel what each knowledge worker is capable of doing and how they use their knowledge to improve and develop ideas.
2. Organization cannot function appropriately without implementation of knowledge management projects

Self–Assignment Exercise

Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Develop similar knowledge management projects as identified in this unit?
2. What is the significant of knowledge management projects

Assignment File

1. Discuss implementing knowledge measurement projects in the organization.
2. Which approaches do you think would be most suitable in implementing knowledge measurement projects

2.6 References/Further Readings

Fitzhugh, A (2020). 10 Tips for Implementing a Knowledge Management System https://www.easyvista.com/blog/10-tips-for-implementing-a-knowledge-management-system

Davenport, T. H., De Long, D. W., & Beers, M. C. (1998). Successful knowledge management projects. *MIT Sloan Management Review*, *39*(2), 43. https://www.proquest.com/docview/224965392?pq-origsite=gscholar&fromopenview=true

De Long, D., Davenport, T and Beers, M. (1997). What is a Knowledge Management Project?,http://www.providersedge.com/docs/km_articles/what_is_a_km_project.pdf

Pereira, L., Santos, J., Dias, Á., & Costa, R. (2021). Knowledge management in projects. *International Journal of Knowledge Management (IJKM)*, 17(1), 1-14. https://www.igi-global.com/article/knowledge-management-in-projects/269380

2.7 Possible Answers to Self-Assessment Exercise

1. A similar knowledge management projects which could be likened to the ones in this unit where university website is built, library webpages and architectural design on the beautification of the organization environment are some identified projects in this unit

2. The significant of knowledge management projects is that it helps the organization to be well position through generating of revenue as source of income and the strength where infusion of new knowledge is captured through knowledge sharing.

UNIT 3 PRACTICAL WORK IN KNOWLEDGE MANAGEMENT

Unit Structure

3.1 Introduction

In the previous module 5, unit 2, we considered implementing knowledge measurement projects, which is most significant for the organization, because projects are what sustain organization in terms of getting incentives and enforcing innovation.

In the present module 5, unit 3, we shall be looking at practical work of knowledge management, being drivers of organizational projects and work performances.

3.2 Learning Outcomes

By the end of this unit, students registered for this course should be able to:
Explain the practical work of knowledge measurement in the organization

3.3 Practical Work in Knowledge Management

Practical work in knowledge management has to do with the actual work performance where knowledge, either tacit and or explicit are exerted or applied in the organization. This implies the application of knowledge by employees in carrying out their job description on daily basis. It is through the effort of these knowledge, tacit and or explicit that the organization is sustained. Upadhyay and Kundu (2020) note that without tacit knowledge management employees cannot function as that is the bedrock of building development and transformation.

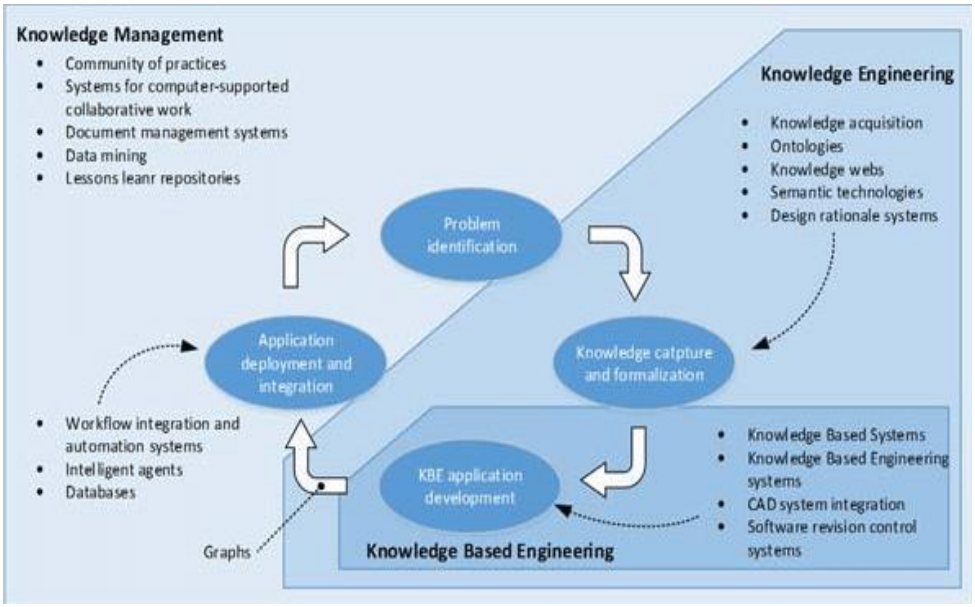

Fig 101: Practical works of KM
https://www.edrawmind.com/article/knowledge-management-examples.html

What so ever that happens in the organization, either building model, administrative learning, training and development, review of policy among others are strengthened through the support of continuous use of tacit and explicit knowledge. Therefore, on this note, the need to value and sustain the work of knowledge management in the organization become essential. The essence of this practice was to brings a connection between the structured organization and their members such organizational culture and goals are maintained.

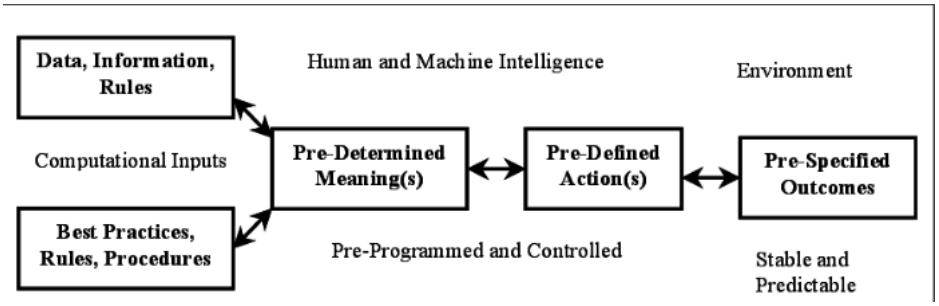

Fig 102: Routine which KM is used for in the organization
https://www.researchgate.net/figure/Knowledge-Management-for-Routine-and-Structured-Information-Processing-MODEL-1_fig1_228585526

Another view from extant literature of knowledge management indicate that, the practical work of knowledge management is to establish the transformation and improvement of the capability of the employees such that, there will not be gap on the practices of job performance (Boamah, Zhang, Wen, Sherani, Hayat & Horbanenko, 2021).). It is believed that employees would do better when they have the right tools, procedures

and right class of team-players. This could be resounded from the understanding that skills, capabilities, experience, technologies, routines and norms are pivotal to the achievement of all practical works of knowledge management (Boamah, Zhang, Wen, Sherani, Hayat, & Horbanenko, 2021).

A practical experience or real-life situation which we can learn from regarding the work of knowledge management could be seen from what happens in Toyota company where cars are manufactured. Another example is forest product. What happens in this enterprise is that, the tacit type of knowledge is used to handle all the production of the various parts and how the car are equally assembled. It was in line with this emphasis that resonated to the debate regarding the work of knowledge management being contextually and contently different based on organizational goals and objectives.

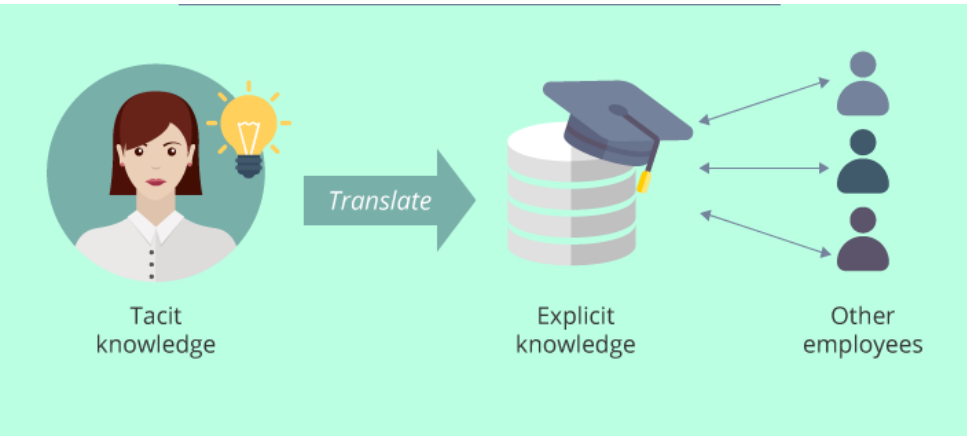

Fig 103: Activities surrounding KM
https://www.scnsoft.com/blog/how-to-work-your-way-through-knowledge-management

Rocha and Pinheiro (2021) allude to application of employee wisdom in supporting the practice of knowledge management irrespective of the circumstance such that, building organizational knowledge would not be difficult. With this in mind, employees are able to understand the activities and what each individual is capable of doing in the organization. Ferreira, Mueller and Papa (2018) refer to the procedures, strategies, theory and infrastructure used in the organization as determinants in accomplishing the work of knowledge management. These have served as components on reorganizing the work force such that all set goals and objectives are met.

Meeting this goal and objectives requires critical planning and execution of aligned policy that has been formulated (Probst, 1998; Tiwana, 2000; Meri, 2020). The practical work of knowledge management varies in

context and content considering the products and services which the organization is saddled with on daily or regular basis.

Fig 104: KM practices to follow
https://www.thecloudtutorial.com/advantages-of-knowledge-management-system/

Tutorial (2022) alludes to factors such as low cost, cross fertilization of employees' ideas, documents and data harvesting, enhanced decision making, balancing and restraining brain drain, learning from experiences, Inspiration of Progress and Invention, Regulate Procedures, offer Improved Service to Workers and Clients such that the easy of finding of information is ensured. These necessitated the different practical knowledge management work presented below.

Fig 105: thecloudtutorial.com/advantages-of-knowledge-management-system/
https://www.thecloudtutorial.com/advantages-of-knowledge-management-system/

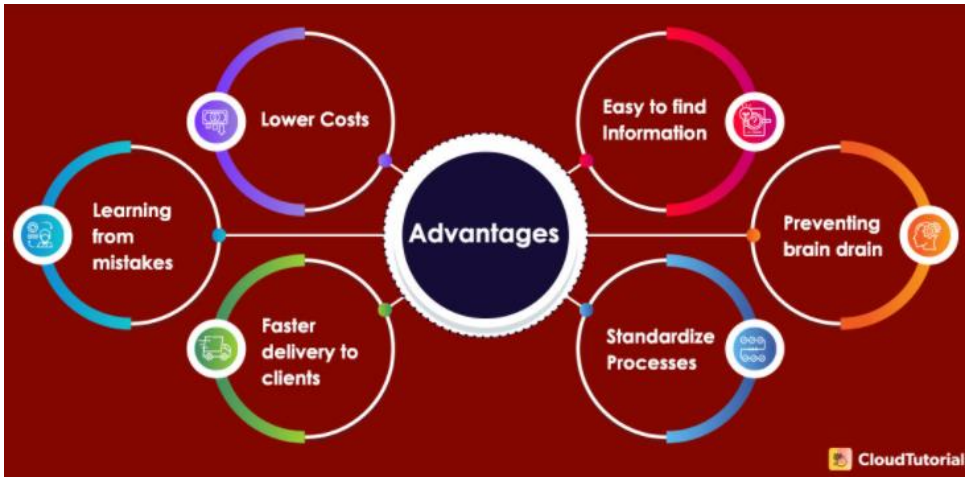

Fig 106: thecloudtutorial.com/advantages-of-knowledge-management-system/
https://www.thecloudtutorial.com/advantages-of-knowledge-management-system/

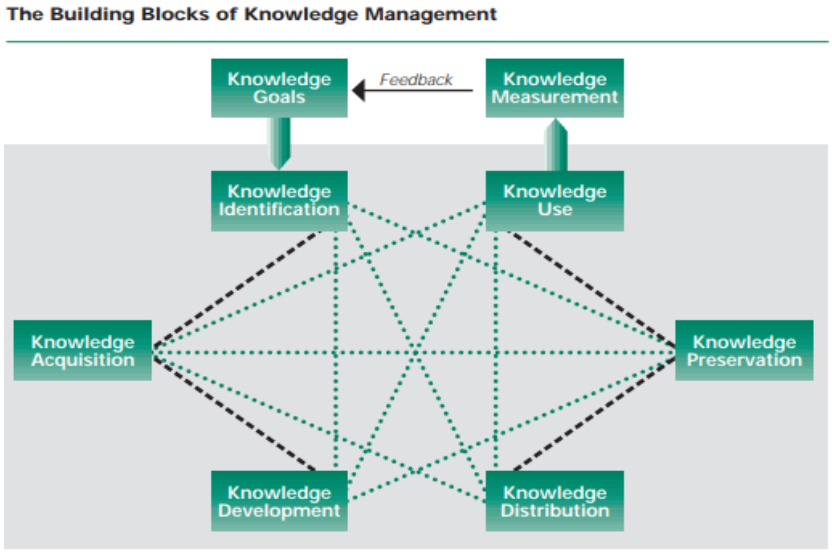

Fig 107: Building block of Km
Arthur D. Little, https://www.thecloudtutorial.com/advantages-of-knowledge-management-system/

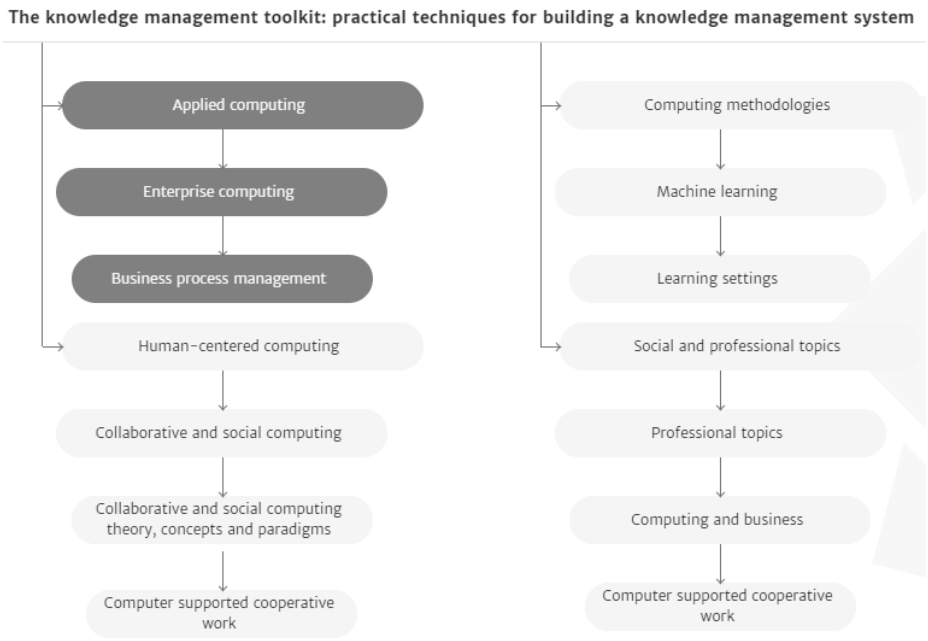

Fig 108: https://www.thecloudtutorial.com/advantages-of-knowledge-management-system/

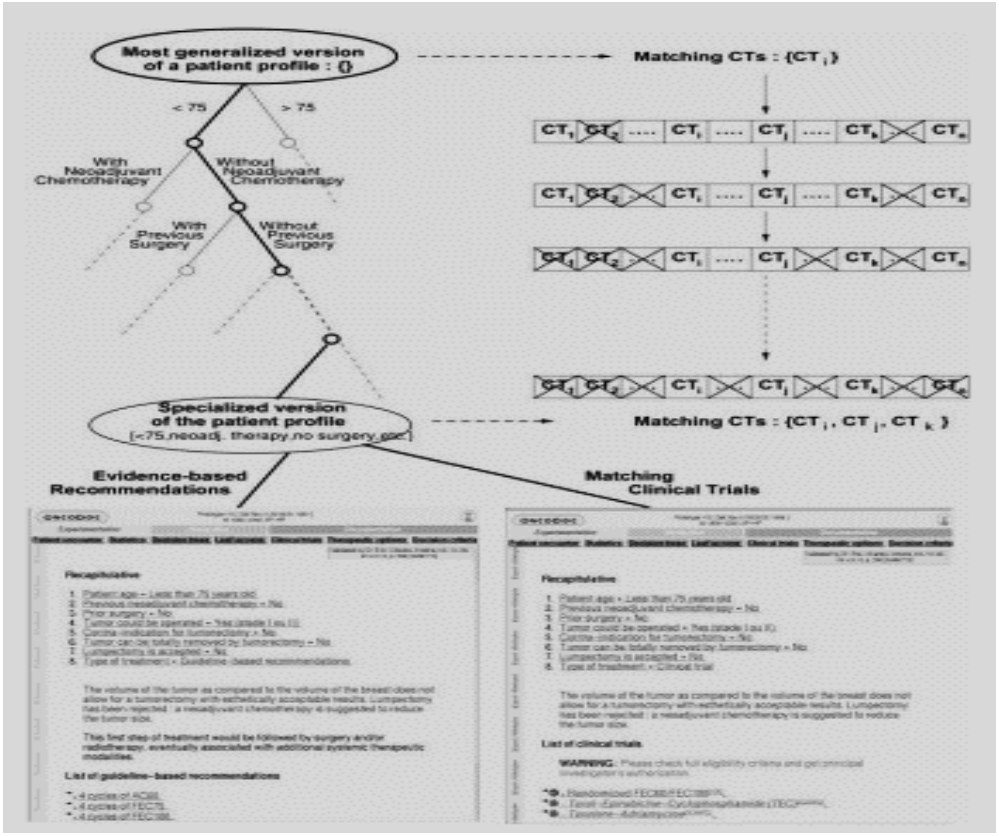

Fig 109: Representation of the process underlying eligibility criteria screening
https://arxiv.org/ftp/arxiv/papers/2001/2001.09795.pdf

Fig 110: Knowledge Portal
https://arxiv.org/ftp/arxiv/papers/2001/2001.09795.pdf

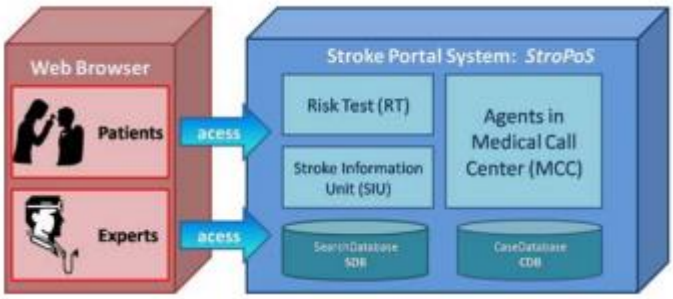

Fig 111: Architecture of the Stroke Portal StroPoS
https://arxiv.org/ftp/arxiv/papers/2001/2001.09795.pdf

https://www.youtube.com/watch?v=K-G_4ZYDinY

2. https://www.youtube.com/watch?v=pF_vtsVC3PY

3. https://www.youtube.com/watch?v=J1UIAfJH7Ps

The practical work of knowledge management is essential in at all organization irrespective of its goals and objectives. It plays a vital role in the accomplishment of the organizational goal considering the

complexity of tasks which employees are faced with on daily basis. With such practical practices of work carried out, diversities of initiatives are unfolded, bringing specialty of the individual handling such tasks, as such colleagues in the organization should continually promote and perform practical work in knowledge management where they would have to come up with different projects that is intriguing and dependable for a long-life learning practices in the organization.

3.4 Summary

It was established in this unit that, the practical work in knowledge management encompasses a lot of issues ranging from development of initiatives which later became projects in the organization, to actual work performance. The most intriguing thing that brings about the accomplishment of the whole tasks is the use of either tacit and or explicit knowledge. With this in mind it is expected and encourage that colleagues in the organization should have open mind to work together in their various jobs speciation, such that having outstanding results becomes a practical practice. Most of the practical work of knowledge management attained was based on the effort of staff members willing and ever ready to sacrifice their time and initiatives in sustaining the organization.

3.5 Glossary

1. Knowledge management projects involves a scenario where staff members cross fertilization ideas, documents and data harvesting, enhanced decision making, balancing and restraining brain drain, and learning from experiences.

2. Employee wisdom has become more useful as it helps in the management and building organizational knowledge.

Self–Assignment Exercise
Attempt these exercises to measure what you have learnt so far. This should not take you more than 5-10 minutes.

1. Mention some knowledge management practical work
2. Why do you feel knowledge management practical work is important?

Assignment File

1. Discuss your understanding of the practical work in knowledge management
2. How do staff members get involved practical work in knowledge management

3.6 References/Further Readings

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3.7 Possible Answers to Self-Assessment Exercise

1. The knowledge management practical work represented in this unit are important because it helps to determine the operations/functionality which the organization are known for and capable of accomplishing in present knowledge economy.

2. Some knowledge management practical work comprises of building model, administrative learning, training and development, review of policy, support to younger staff members and sharing of tacit and explicit knowledge