

The Use of Holistic Approach to Knowledge Management Initiative in Managing Information in Higher Learning Institution: A Perspective

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Abstract: - In the current world today, where Internet plays an important role in the information technology environment for communication, collaboration and file sharing, data is distributed and transform into useful knowledge. Knowledge, known as the body of information such as facts, opinion, ideas, theories and principles is vital in most organisations from commercial enterprises, government agencies to higher learning institution as it allows the organisations to advance for better performance in the future. As such, knowledge should be managed well to sustain a high rate of continuous improvement. Currently, organisations worldwide are using various techniques and technologies to better manage their existing knowledge in order to improve the quality of knowledge sharing. Therefore, realising the importance of knowledge sharing, the concept knowledge management is created to obtain the greatest value from knowledge available in an organisation. At present, it is root out that most higher learning institutions in Malaysia have not created proper mechanism to allow knowledge creation and sharing. As such this paper addresses an initiative taken to develop a model that gives emphasis on a variety of aspects that will make the knowledge management programmes to be efficient and effective. The proposed model uses an integrated approach to develop a holistic knowledge management system and it can be utilised by the institutions to promote and strengthen the knowledge creation and sharing culture in Malaysia.

Key-Words: - Knowledge Management, KM, Tacit Knowledge, Knowledge Creation, Knowledge Sharing, Higher Institutions Malaysia, KM model

1 Introduction

Knowledge can be defined basically as the body of information such as facts, opinion, ideas, theories, principles and models or frameworks. Nonaka [6] defined knowledge as, the commitment and belief and more of a reaction that includes the unique experience and knowledge present

in the individual employee. He stresses that it is this knowledge that must be made explicit for new knowledge to be created. Knowledge also refers to a person state of being with respect to some body of information. Sveiby [4] perceived knowledge as object that can be articulated in words and that when abstract

knowledge is transformed and structured through words and symbols, knowledge can be disseminated, analyzed, criticized, synthesized and expanded to new areas of knowledge. As such, good knowledge management (KM) would be able to support organisations in promoting continuous learning where knowledge can be practiced and used.

Literature reveals that knowledge management plays an important role in the day-to-day activities. Most organisations are currently trying to retain the existing knowledge by managing and controlling the knowledge, using existing knowledge in decision making, facilitating knowledge growth through socialization process (as advocated by Nonaka's theory of knowledge creation) and generating new knowledge where possible. Emphasis on the importance of knowledge offers a potential use of knowledge management in higher learning institution as these institutions have significant opportunities to apply knowledge management practices to support every part of the institution mission [3]. However based on a survey conducted by a group of researcher [1] it is discovered that most higher learning institutions in Malaysia have not created proper mechanism to allow knowledge sharing, thus hinders the effective practices of knowledge management. Thus this paper addresses an initiative taken to develop a model that gives emphasis on a variety of aspects that will make the knowledge management programmes to be efficient and effective.

This paper is structured as follows: Section 2 highlights the approaches used to knowledge management initiatives. Section 3 gives an overview of the model proposed. Section 4 presents the proposed knowledge management system architecture, while section 5 discusses the application of the proposed architecture in the higher learning institutions in Malaysia. Finally section 6 concludes the paper.

2 Approaches to Knowledge Management Initiatives

Most current KM practices emphasized on managing explicit knowledge, as such formal knowledge recorded in documents, written paper, data kept in databases are managed to assist in day-to-day activities. On the contrary, based on the theory of knowledge creation by Nonaka and Takeuchi [5], knowledge could also be created through the interaction between explicit and tacit knowledge, via a process known as knowledge conversion. The four modes associated to the process are socialization, externalization, combination and internalization, in which it involves of converting tacit knowledge into explicit knowledge and creation of new knowledge through synthesis of continuous and dynamic process.

Organizations that wish to improve KM initiatives or programmes must realize that knowledge unlike information should be also seen as commitment and belief and more of a reaction. Therefore, the unique experience and knowledge present in the individual employees of higher learning institutions must be made explicit for new knowledge to be created. In addition, to enhance innovation it does not necessary involved force elements. Nonaka and Takeuchi's theory of knowledge creation is based on the critical assumption that knowledge is created and extended through social interaction between tacit and explicit knowledge. The exchange of knowledge is a social process between individuals and individuals and organization.

Given the importance of tacit knowledge in managing knowledge it is proposed that knowledge management initiatives should be combining both types of knowledge into the knowledge management system. This is significant as there would be balance between connecting individuals who need to know with those who know, and collecting what is learned as a result of this connection.

3 A Model of An Integrated Approach to Knowledge Management

Having analyzed the various approaches and practices to knowledge management based on available literature, a model was constructed to ensure that the knowledge management programmes to be designed give emphasis on a variety of aspects that will make the programme efficient and effective.

It can be synthesized that organization should focus on these five objectives of knowledge management [2]:

- Connecting people with other knowledgeable people
- Connecting people with information
- Enabling the conversion of information to knowledge
- Encapsulating knowledge to make it easier to transfer
- Disseminating knowledge around the organization.

Figure 1 shows that the knowledge management model proposed here focuses on developing a knowledge friendly culture and knowledge friendly behaviour among the people in an organization which should be supported by the appropriate processes, and which may be enabled through technology.

Based on the approach applied below, knowledge management consists of three main components, namely people, processes and technology based on the approach applied above. At the same time, knowledge management programme must have two main dimensions, which are basically collecting, and connecting dimension.

Based on Figure 1, people refers to the cultural and behavioural approach whereby getting an organisation's culture right for knowledge management. This component is the most important but the most difficult challenge, mainly because knowledge is actually first and foremost a people issue. Connecting people tends to

be the main emphasis in effective knowledge programmes. Knowledge management initiative in some organisations in Japan has shown that the creation and sharing of knowledge can only happen when individual cooperate willingly [5]. According to Nonaka, employees need to be given a lot of space to create and not controlled or monitored. As such, employees in any organisations need to socialize, externalize, combine and internalize knowledge to produce new insights. Hence for knowledge management programme to succeed, the culture of the organisation must support on going learning and knowledge sharing. This is important in order to ensure that not only relevant knowledge is captured to aid in managing day-to-day activities of the organisation but that new knowledge should be created substantially to meet new challenges and cut competitive edge.

Processes on the other hand, involved the creation of environment to promote knowledge sharing, for example higher management in the organisations should provide meeting rooms, cyberspace and forum sessions to foster interactions among employees. This would further encourage communication among employees to share relevant knowledge. The technology component mentioned above is a key enable to connect people and sources of information. As such repositories of knowledge, directories of expertise, yellow pages, data warehousing, full text search engines and hypertext systems can be embedded into the knowledge management system to foster the capturing and dissemination of knowledge.

It is believed that the model proposed had emphasized the knowledge creation activities through a dynamic and continuous process, which appears to be a new approach to developing knowledge management system that is more pragmatic and dynamic. Therefore to achieve a holistic knowledge management system, the above-proposed model formed the basis for the design of knowledge

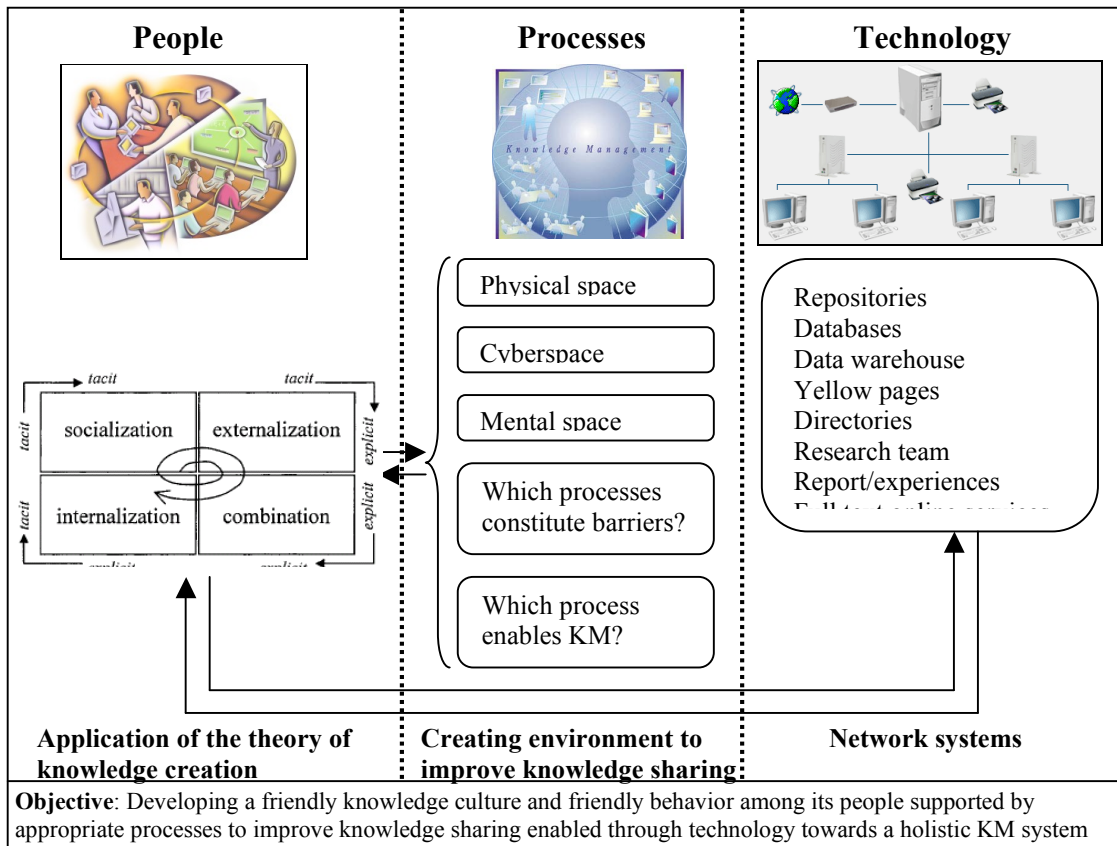


Fig.1: Knowledge Management Model

management system architecture that would provide the structure needed to promote knowledge sharing among employees. The architecture is presented in the next section.

4 Proposed Knowledge Management System (KMS) Architecture

The knowledge system architecture proposed gives emphasis on the three main components namely the people, process and technology described in the above model. Figure 2 shows that the knowledge management system architecture comprises of important elements such as vision, customer communities access channels, applications, knowledge warehouse, infrastructure and enabling environment.

Based on the Figure 2, it can be deduced that the architecture had focused on the

interaction between employees in the organisation through the use of access channels, knowledge warehouse, infrastructure provided and the enabling environment. The process component is materialised through the applications, knowledge warehouse and the infrastructure, while the technology is transpired through the exercise of infrastructure, applications of portals and enabling environment.

5 Application of Proposed KMS Architecture in Higher Learning Institution

The proposed KMS architecture would be useful for any organisations that aspire to establish knowledge creation and sharing activities among the employees and implement knowledge management system in the organisation. As stated earlier, it is root out that most higher learning institutions in Malaysia have not

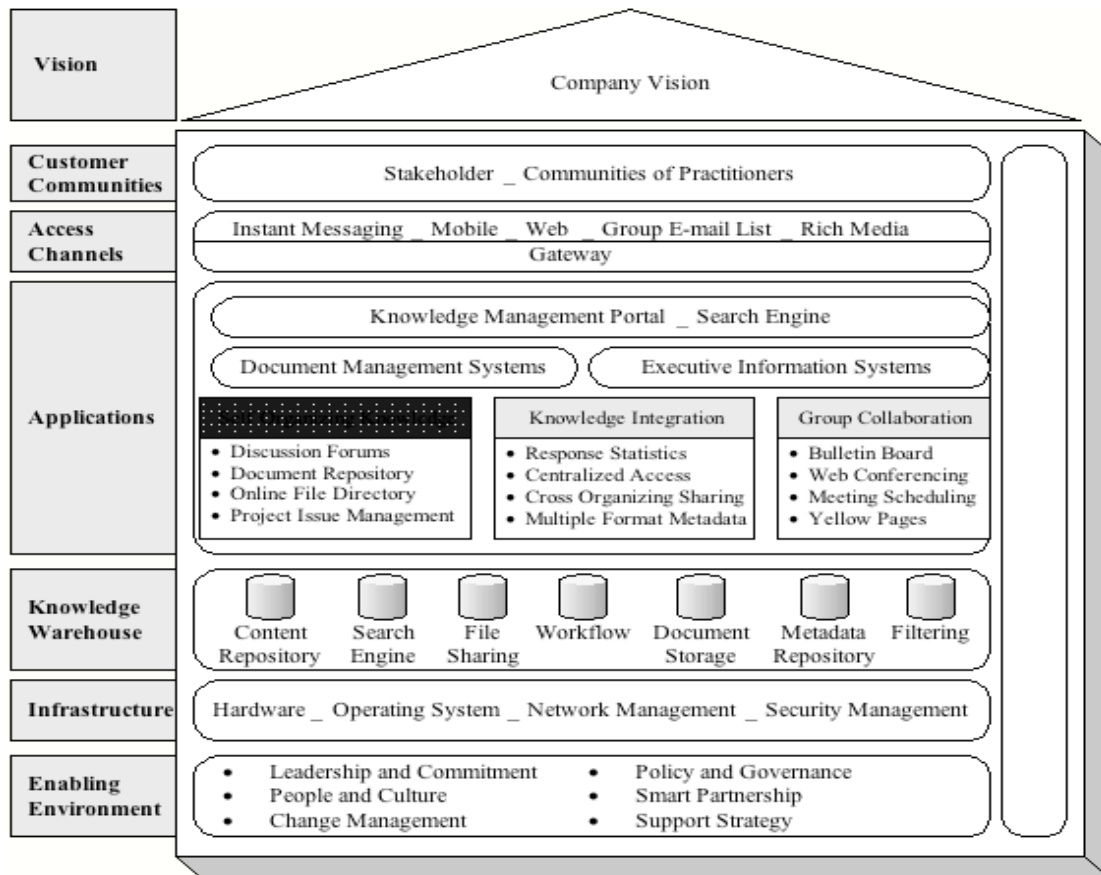


Fig. 2: The Proposed Knowledge Management System Architecture

created proper mechanism to allow knowledge sharing, therefore it is believed that the use of proposed KMS architecture in these institutions would certainly promote otherwise. Most higher learning institutions in Malaysia have the vision to be the leading university that pioneers innovation, research and education to achieve the aspiration of producing knowledge society. As such, it is essential that access channels, applications, infrastructure and knowledge warehouse being developed to aid in achieving the disclose vision. In order to achieve the vision stated by each institution, it is essential that the institution managers establish knowledge initiative programmes. The higher authorities needs to encourage their employees to be involved in on going knowledge creation activities as advocated by Nonaka and Takeuchi such as research and development, consultancy, advance training, expert collaboration, brainstorming sessions, intellectual forums and colloquiums to ensure that the

initiatives are executed. In other words the cultural perspectives on knowledge management should be emphasised tremendously in the institutions. Likewise, technology elements should also be put into the highest priority in order to achieve the objective of knowledge management initiative programmes established.

As most higher learning institutions in Malaysia have already hold existing customer communities, access channels, infrastructure and enabling environment, enhancements can be made to the applications and knowledge warehouse. In addition, the higher authorities of the higher learning institutions should highlight and emphasise on the knowledge creation process among the employees. If all of these are taken into the perspectives of managing information using the above architecture, it is believed that the information relating to teaching, learning, research and management activities can be captured and utilised effectively to

strengthen the knowledge sharing culture in the institutions.

6 Conclusion

This paper emphasised on the cultural behavioural perspective of KM, which organisations failed to integrate in their KM initiatives. In addition effective organisation learning depends more on a human resources rather than technology driven. Higher learning institution in Malaysia should realize that for knowledge initiatives programme to work, they need to encourage their workers to be involved in on going knowledge creation activities as advocated by Nonaka and Takeuchi. They should also establish Communities of Practitioners (CoP) to encourage and drive systems, share problems and learn from one another, through CoP meeting and brainstorming sessions. Such activities help promote group wide sharing of lessons and experience relating to all aspects of higher learning institution activities. Through sharing experience within groups of core competencies, it helps promote the replication of good practice and the resolution of issues and problems. In addition continuous learning, organisational learning and aspiring visions to make higher learning institution a knowledge organisation forms the basis for the implementation of knowledge management initiatives that are progressive. Apart from emphasising on the cultural perspectives on knowledge management, this paper pointed out importance of technology element in order for the objectives of knowledge management initiatives programme to be achieved.

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