

The Human Focus in KM/IC for Innovation in Smart/Future Universities: Literature Review

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Abstract: Knowledge management has been viewed as one of the most important developments in the fields of information studies and management in the modern times. By obtaining, organizing, documenting and sharing knowledge, Knowledge management helps complex organisations make better decisions and solve their problems efficiently and effectively. As highest centres of learning, universities should build information infrastructure and create an atmosphere where educational and non-educational staff, students, researchers, patrons and other stakeholders can take part in various knowledge management sharing actions. The role of knowledge workers in this regard is quite important. By promoting knowledge discovery and use, knowledge workers can bring about changes in the university's organisational cultures and individual behaviours relative to knowledge. Universities can play an important role in the building and unrestricted development of a knowledge-based society by recruiting skilled and competent knowledge workers and empowering them to manage the knowledge assets effectively.

Keywords: Knowledge Management, Intellectual Capital, Smart University, Higher Education, Innovation.

I. INTRODUCTION

Information practices and learning strategies known as knowledge management are gaining acceptance in the field of education. At the most basic level, knowledge management can be described as a set of practices that helps to improve the use and sharing of data and information in decision-making. KM is a discipline that is concerned with the analysis and technical support of practices used in an organization to identify, create, represent, distribute and enable the adoption and leveraging of good practices embedded in collaborative settings and, in particular, in organizational knowledge processes, effective KM is an increasingly important source of competitive advantage, and a key to the success of contemporary organizations, bolstering the collective expertise of its employees and partners (Wang, L., & Kourouklis, A. - 2013). The application and use of ICT to support KM in higher education is currently an emerging challenge and requires a new conceptual approach and research agenda to address new challenges. ICT uses in KM provide us with the potential for greatly enhanced access to knowledge combined with the challenge of how to manage the access. In addition, it promises improvements in the quality, efficiency, and effectiveness of higher education process; and draws solutions from and contributes to multiple disciplines including management, information retrieval, artificial intelligence, and organizational behaviour (Omona, W., Van der Weide, T., & Lubega, J. T. - 2010).

II. PROBLEM STATEMENT

The importance of new ideas and their manifestations as processes, practices or products cannot be overstated in competitive markets and in an era of globalisation. They are at the core of social change. Increasingly, innovation is being recognised as a fundamental agent of organisational change. University as an organisation that continually innovate are perceived to have competitive advantage over those that fail to exploit opportunities for innovation. However, the management of innovation is a challenging issue that involves complex understanding. How does an organisation become innovative? How are opportunities for innovation exploited to create competitive advantage? What type of management should be implemented to encourage innovation?

III. LITERATURE REVIEW

Knowledge management is becoming gradually more important in various sectors of society especially in universities. To help them improve their intellectual capital, qualification, innovation and efficiency. There are numerous of studies found that, It is significant for modern universities to be not only education centres but essentially the successfully prospering organizations based on the innovation comes from the good knowledge management and intellectual capital in the organization. For example, Egbu and his colleagues discuss the link between KM, IC and innovation in the organization (Egbu, C., Botterill, K., & Bates, M. -2001). By explore the factors that support knowledge management such as people, culture, politics, leadership and the external environment. After that, they examine the link between each factor and the creation of ideas for innovation. They found that, KM and IC management are prepare an environment conducive to human creativity and freedom of thought to innovation generation and they are important pre-requisites for this process to succeed. Petrides and Nodine (Petrides, L. A., & Nodine, T. R. -2003) reviewed work discussed on Knowledge Management in Education. They offered a set of simple schematics for involving people, processes, and technologies— for understanding “that people, not systems, manage knowledge”. They discussed how organizations can encourage policies and practices that assist people share and manage knowledge. Furthermore, they found by practice, knowledge management builds upon community and professional teamwork by actively attractive people in sharing with others what they know and what they are learning. Owoc and Marciniak distinguish the Knowledge Management as Foundation of Smart University (Owoc, M., & Marciniak, K -2013). They discover and illustrate roles of Knowledge Management in the university. They found caring about knowledge management at every level of organization enables creating opportunities of organization growth and allows to implement innovation. Moreover, they consider if the university managed in an intelligent way they will achieves type of smart, through involve all five university contractual determinants in their decision making: (people, building, knowledge grid, governance and environment). Chaston made a research study to examine the performance of universities in relation to the effectiveness of their knowledge management systems and involvement in innovation (Chaston, I -2012). As a results he found, that certain key factors influence the effectiveness of knowledge management systems. Universities worked in innovation have to develop more effective systems. He concluded, that universities seeking to survive could benefit from optimizing the effectiveness of their knowledge management systems and giving greater emphasis to the acquisition of new knowledge by exploiting innovation. McAdam inquire into the possible use of knowledge management within organizations as instrument for incrementing innovation, and hence competitiveness. (McAdam, R. -2000). This research found , there is a relationship between the budding body of knowledge referred to as knowledge management and that of innovation. This relationship provides for organizations and for people who work in them an opportunity to improve both the business and the work satisfaction through increased innovation in products, services and methods and conditions of work. The review of the literatures have shown the importance of knowledge management to the universities and it is assets vital for business. The management of knowledge and intellectual capital provides opportunities for project creativity and innovation. On other hand, for effective implementation of knowledge management in organisations there are many factors includes people, culture, structure, leadership, and the environment.

IV. LITERATURE FINDING

Knowledge as we know is not only one of the key resources of the enterprise, it is the base, the starting point for deciding the organization's strategy and approach. So, It is able to say that universities or higher education institutions can be considered for the organization, in terms of management. Knowledge Management and intellectual capital in university is a plan that makes eminent sense—a wonderful combination of good intuition, practical know-how, and a feel for what might be best described as a set of emerging theories focusing on the effective management of knowledge in educational institutions. In addition, Knowledge Management in universities supplies us with a framework for understanding how good assessment practice, in fact, depends on effective information management. Ultimately, It is significant for modern universities to be not only education centres but essentially the successfully prospering organizations based on the innovation comes from the good knowledge management and intellectual capital in the organization.

- **A Knowledge Management Approach**

The objectives of KM in organizations are to promote knowledge growth, knowledge communication and knowledge preservation and entails managing knowledge resources in order to facilitate access and reuse of knowledge. As a key

progress factors in higher education, KM aims at capturing explicit and tacit knowledge in order to facilitate the access, sharing, and reuse of that knowledge as well as create new knowledge and facilitate organizational learning. To succeed, KM must be guided by a strategic vision to fulfill primary organizational objectives such as improving knowledge sharing and cooperative work, disseminating best practices, improving relationships with the external world, and preserving past knowledge for reuse (Omona, W., Van der Weide, T., & Lubega, J. T. (2010)).

Educational organizations—whether they be schools, colleges, universities, or systems—are not machines. Educational organizations grow and revitalize themselves through the knowledge they create, their processes for passing that knowledge on to others, and the exchanges and relationships that they foster among people.

Knowledge management builds upon a human-centered approach that views organizations as complex systems that spring from the unique organizational contexts in which they are developed.

Considered broadly, however, knowledge management in education can be thought of as a framework or an approach that enables people within an organization to develop a set of practices to collect information and share what they know, leading to action that improves services and outcomes. In seeking to balance an organization's information culture and its technology culture, knowledge management brings together three core organizational resources—people, processes, and technologies—to enable the organization to use and share information more effectively (Fig 1).

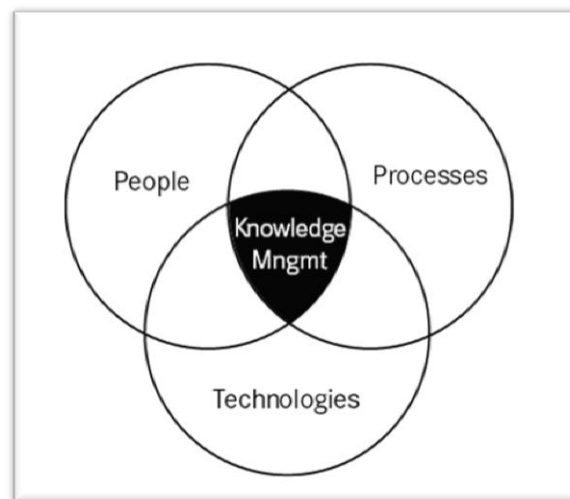


Fig 1

1. PEOPLE

People, not systems, manage knowledge. But universities can promote policies and practices that help people share and manage knowledge.

Knowledge management builds upon collegial and professional teamwork by actively engaging people at many organizational levels in sharing with others what they know, and what they are learning. In many schools, colleges, and universities, working groups of staff and teachers from across departments have come together by common need and exchange information because it makes their jobs more rewarding and their work more effective.

These groups build relationships, trust, and expertise; they create a shared repertoire of resources, tools, and artifacts that support future learning. In many organizations, these kinds of informal, self-sustaining collegial bodies—such as informal research and study groups, and brown bag lunches—have been around for a long time. They are often at the center of innovation and energy, sometimes despite—and sometimes because of—a lack of acknowledgment or attention from above. Knowledge management seeks to foster the development and utility of these “communities of practice” (CoPs), while maintaining their “user” control (Petrides, L. A., & Nodine, T. R. 2003).

2. PROCESSES

Formal and informal administrative procedures, curriculum development processes, information sharing patterns, information silos, salary incentives, and many other work practices affect information flow within every organization.

These processes exist whether or not people choose to participate in or pay attention to them. Knowledge assessments, audits, maps, and improvement plans help to establish robust processes that enable people to get the information they need, when they need it, as well as to share it with others who may benefit from it. In highlighting patterns of information use that might not be obvious otherwise, knowledge management practices help to promote those processes that lead to more informed decision-making (Petrides, L. A., & Nodine, T. R. 2003).

3. TECHNOLOGY AND INFORMATION SYSTEMS

Technology needs to be recast not as a cost center that puts a strain on limited resources for schools or colleges, nor as a driver of knowledge management, but as a vital and necessary contributor to the health and effectiveness of the organization. The most effective technologies within a knowledge management framework are broadly accessible to target user groups and promote the tracking and exchange of useful information across departments (Petrides, L. A., & Nodine, T. R. 2003).

V. FOCUSING ON PEOPLE AND THEIR NEEDS

The power of knowledge management, particularly when compared to other change efforts, is that it maintains focus on people—on faculty, staff, and students—and their needs. There is no quick fix for managing knowledge in an organization. And there is no single system, no matter how complex and integrated, that can manage knowledge. In the final analysis, it is people who manage knowledge, and it is the role of organizations to promote policies and practices that help people want to share and manage knowledge effectively.

For that to happen, people within the organization must recognize a value in involving themselves in the practices of knowledge management. That is, even though the prime motivator for educators is, most often, their desire to help students be as successful as possible, there must be something in it for educators. Implementing knowledge management in organizations is more difficult when non-collaboration is the norm, or when data and information infrastructures are under-funded or otherwise have a diminished capacity. Knowledge management is more likely to take root in communities that need to share knowledge to realize their goals, that have some information sharing norms in place, and that have a leader who is willing to sponsor the effort. (Petrides, L. A., & Nodine, T. R. - 2003).

VI. KNOWLEDGE MANAGEMENT (KM) AND STRATEGIC HUMAN RESOURCE MANAGEMENT (SHRM)

The knowledge management has not been associated well with strategic human resource management as researchers point out. They have outlined a number of reasons that include:

- Lack of structures through which the knowledge can be tapped into.
- The existence of weak retention policies which result in valued people walking away with critical knowledge.
- The possibility that dissatisfied staff or academic members are unwilling to give their best.
- And the possibility that high performing individuals can identify the proportion of rents attributable to themselves and thus make substantial compensation demands. (Ken Kamoche 2006).

Even though 'knowledge management' has become a slogan in the management glossary today, there is not much agreement about what it means within the context of SHRM. Strategic human resource management aligns human resource function to the firm's core business objectives. That is (Armstrong, 2006, 181);

- Help to develop an open culture in which the values and norms emphasize the importance of sharing knowledge.
- Promote a climate of commitment and trust.
- Advise on the design and development of organizations which facilitate knowledge sharing through networks and communities of practice (groups of people who share common concerns about aspects of their work), and teamwork.
- Advise on resourcing policies and provide resourcing services which ensure that valued employees who can contribute to knowledge creation and sharing are attracted and retained.
- Advise on methods of motivating people to share knowledge and rewarding those who do so.

- Help in the development of performance management processes which focus on the development and sharing of knowledge.
- Develop processes of organizational and individual learning which will generate and assist in disseminating knowledge.
- Set up and organize workshops, conferences, seminars and symposia which enable knowledge to be shared on a person-to-person basis.
- In conjunction with IT, develop systems for capturing and, as far as possible, codifying explicit and tacit knowledge.
- Generally, promote the cause of knowledge management with senior managers to encourage them to exert leadership and support knowledge management initiatives.

VII. THE IMPORTANCE OF SHARING KNOWLEDGE IN ISLAM

“Read! In the Name of your Lord Who has created (all that exists). He has created man from a clot (a piece of thick coagulated blood). Read! And your Lord is the Most Generous. Who has taught (the writing) by the pen. He has taught man that which he knew not”

[Qur’an, 96: 1-5]

“Read” was the first word to be revealed from the Qur’an. The verses above demonstrate the importance that Islam dedicates to science and knowledge.

Some Muslims don’t pay enough attention to worldly knowledge as they think that religious knowledge is all that matters. But that is not true.

Not only is it our duty to pursue science and knowledge as Muslims, it is also our duty to excel in everything we do as the Islamic core value of Ihsan (excellence) dictates.

Islam as a rational religion enjoins mankind not only to acquire authentic knowledge of Islam but also encourages us to teach Islam to others. We should be inspired to teach what we know of Islam with the following authentic Ahadith:

Abdullah ibn Mas’ud r.a.) narrated that Allah's Messenger (s.a.w.s.) said to me, “Acquire the knowledge and impart it to the people.”

(Tirmidhi 279, Darimi and Daraqutni)

Abu Umama (r.a.) narrated that the Prophet (s.a.w.s.) said, “A learned person is as much above a worshipper as I am above the least of you. Allah, His angels and all those in Heavens and on Earth, even the ants in their hills and the fish in the water, call down blessings on those who instruct people in beneficial knowledge.”

(Tirmidhi 1392)

Abdullah ibn Amir r.a.) narrated that Allah’s Messenger s.a.w.s.) happened to pass by two groups (of Muslims) in the mosque and he said: Both of them are good, but one is superior to the other. One group is supplicating Allah and praying Him. If He so wills He will confer upon them and if He so wills He will withhold. So far as those who are acquiring the understanding of religion and its knowledge and are busy in teaching the ignorant, they are superior. Verily I have been sent as a teacher.” He then sat down amongst them.

(Tirmidhi 257 and Darimi)

VIII. RECOMMENDATIONS

Since the empirical research has not come up with clear integration of Knowledge Management (KM) and Strategic human resource management (SHRM) it is important for knowledge intensive Universities’ to come up with knowledge management systems or good management structures to store and harness this capability. The role has evolved drastically from that of involving the creation and maintenance of knowledge repositories to that involves influencing the culture of an organization toward improved knowledge sharing, reuse, learning, collaboration and innovation. That is should be in three levels; strategic, tactical and operational levels. At the strategic level it is recommended for the university to be able to analyse and plan its goals in terms of the knowledge it currently has and the knowledge it needs for future goal

processes. Also at the tactical level the university should be concerned with identifying and formalizing existing knowledge, acquiring new knowledge for future use, archiving it in organizational memories and creating systems that enable effective and efficient application of the knowledge within the university. At the operational level knowledge should be used in everyday practice by professional personnel who need access to the right knowledge, at the right time, in the right location. This avoids what Edvardsson (2008) called “information junkyards”.

IX. CONCLUSIONS

The knowledge management is very challenging issue even in knowledge intensive universities. Most people have come up with human resource strategies to influence knowledge management. These strategies vary depending on the knowledge management strategy a university chooses. The use of strategic human resource management to manage knowledge is a newly established practice. A large amount of existing literature is theoretical in nature; and much empirical research is based on statistically insignificant samples or anecdotes. With the current level of research the link between strategic human resource management and knowledge management depends largely on context. There are many areas within the field that would benefit from further research. Additional research into staff and academic employee’s commitment will guarantee that human resource strategies focus on the areas where most gains can be made. What we can get from the research is that effective knowledge management can and does deliver significant competitive advantage. Where universities are able to direct their knowledge toward innovation, competitive advantage will follow.

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