

Application Of Knowledge Management In Education Sector A Conceptual Framework

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Abstract

Knowledge management is a critical element that many business organizations are using to gain competitive advantage today. The rapid changes happening in the business setting demand that businesses employ knowledge as a raw material for innovation and corporate development. Similarly, institutions of higher education are not free from problems and challenges. Educational organizations need to rethink the way they manage their operations with the purpose of responding to the greater demands of students, employers, and accreditation institutions. Based on the current understanding of knowledge management in literature and the experiences reported by some universities that are utilizing knowledge management in their academic and administrative operations, it seems that knowledge management tools and techniques used in the corporate setting are useful and applicable to education institutions. Education institutions create and apply knowledge during their processes and activities. The growth in the number of EIs in India in the last decade has increased competition and the pressures for performing better. This has forced the institutions to recognize the need for knowledge management (KM) initiatives which is a key asset.

The paper presents a conceptual framework in the context of Knowledge Management (KM) in education sector in India. We believe that if the framework is adopted in , it will yield more benefits to increase the quality of knowledge sharing. There has been indeed a paradigm shift in education in India. It utilizes Knowledge Management (KM) pillars to enterprise learning – leadership, organization, technology and learning - as a lens to investigate and understand Knowledge Management practices and perceptions within Education sector, looking at challenges of implementation within this sector.

Keywords: knowledge management, knowledge sharing, Education Institutions.

Introduction

According to B. Gates (2000), "the knowledge management-is a very clever term to describe a very simple subject. You manage data, documents and the attempts of the employees. Your goal is to enrich the common work possibilities, including the exchange of thoughts, the usage of successful ideas and the coordination of actions towards the common goal. The management of knowledge must guarantee that the required knowledge will reach certain people at certain time, so that people can take certain actions."

KM plays an important role in the improvement of organizational competitive advantage

through sharing of best practices, achieving better decision making, faster response to key institutional issues, better process handling and improved people skills. In turn, this means less reinvention of the wheel, relevant and focused policies in compliance with institutional goals and objectives, the ability to access information more quickly, improved academic and administrative services, reduced costs and prevention of mistakes and failures. In practice, however, few EIs achieve all or even most of these benefits. EIs consist of a number of academic and administrative processes that produce knowledge during their activities. The EIs have to attune themselves to develop strategies for the utilization of the institutional knowledge towards enhancing their activities and performance. This requires them to respond timely to the dynamic technologies and the increasing demands of academia (Nagad, Amin, 2006). For this, the knowledge in the organization needs to be identified, encapsulated, transformed and disseminated effectively. This paves the way to recognize the urgent need for knowledge management (KM) initiatives which is a key asset. The application of a KM approach will enable institutions to gain a more comprehensive, reflexive and integrative view of the institutional knowledge for application in cross functional issues – ultimately leading to improved knowledge sharing and more effective decision making, planning and enhancement in performance.

High quality research work is done on knowledge management in higher education (Bernborn, 1999; Kallick and Wilson, 2000; Kidwell et. al, 2000; Petrides and Guiney, 2002; Petrides, 2002; Serban and Luan, 2002). But few studies are devoted to institutional learning using KM practices. (Corbitt et. al, 2005) gives various factors influencing the use of KM tools in higher education.

Role of KM in Higher Education in India

Applying KM in Education Using knowledge management techniques and technologies in education is as vital as it is in the corporate sector. If done effectively, it can lead to better decision-making capabilities, reduced “product” development cycle time (for example, curriculum development and research), improved academic and administrative services, and reduced costs. Knowledge is created at various levels in different forms and is required at each level in a different form. Academic and administrative processes of teaching, examination, evaluation, admissions, counseling, training and placement and research and consultancy result in many useful experiences and studies which may be defined as knowledge in the context of educational institutes (Ranjan, Khalil). KM in educational institutions aims at integrating the knowledge produced at all levels and using it towards the institute's goals and targets. This will have the implications of improving the operational quality, capacity development and effectiveness of the organization leading to enhanced productivity and performance. An academic institution is made up of a number of components or levels consisting of faculty, students, administration, academics, research and training and placement. Each of these levels creates knowledge as well as consumes knowledge, though the nature of knowledge varies at each level. It is important to identify the knowledge that each level contributes to the system and the knowledge that each level requires to perform its functions, and find ways to apply this knowledge effectively at the points of use.

Objectives

Following are the objectives of the research

- * Application and Benefits of Knowledge Management for the Curriculum Development Process
- * Knowledge management as a strategy for capacity building
- * Knowledge sharing dynamics in education sector
- * Ethical issues that arise in managing knowledge at institutions of higher learning
- * Implementing knowledge management in higher education: key processes and strategies
- * Measurement of impact of knowledge management programmes
- * Study the awareness of KM in institutions of higher learning

Materials and methods

The authors identified the functional domains in the EIs and the determinants that support the effectiveness of KM in these domains via an interview and group discussion based study as well as professional experience in educational institutions. The major domains were identified as institutional planning and development, research and consultancy, administrative services, purchase and procurement, finance and accounts, teaching and learning process, examination process, admission process, placements and faculty recruitment, faculty performance evaluation, student affairs and others. The authors restricted their study to only some specific domains.

Observations and Inference

It was found that the importance given to the determinants for KM intervention differed from institution to institution depending upon the organizational structure, goals and targets, organizational responsibilities, stakeholders and the decision making authority. The results of the study assert the opinion that KM initiatives can play an important role in enhancing the performance and effectiveness of EIs in their major work domains. KM helps teachers develop their teaching ability, skill and experience through e-learning, teaching portfolio, and action research. Once individual knowledge is captured, institutions and processes must be established to compel its dissemination throughout the organization. Knowledge management is then escalated to the organizational level. Institutional strategy emphasizes knowledge sharing through school-based teacher education, organizational learning, sharing culture, and teacher community. Knowledge sharing is not limited to the organization. Network strategy calls for establishment of knowledge map for teaching, knowledge database and instructional resource center.

Framework

The framework comprises of determining the existing gap in the knowledge needs of the organization and proposes an iterative process for closing the gap. Once this has been achieved it is important to determine the degree of the existing KM in the organization- what and how much useful knowledge is efficiently captured and reused in the forms required. The next step is to

determine the knowledge gap and the factors that create this gap. The need is to close the gap for the efficient use of organizational knowledge towards goals and objectives. The principal knowledge sources in higher educational institutes are the faculty, students, section heads, staff, administration, registrar and the training and placement services. They create tacit and explicit knowledge in the areas of academics, development and planning as a result of the activities performed. The stored knowledge is structured into appropriate forms based on the organizational goals, the knowledge needs of the stakeholders and the processes in the organization. This consists of transformation of knowledge and its mapping to the processes where it is applied. The next phase is of the dissemination of the knowledge to the points of use. The knowledge is applied to the production of products and services

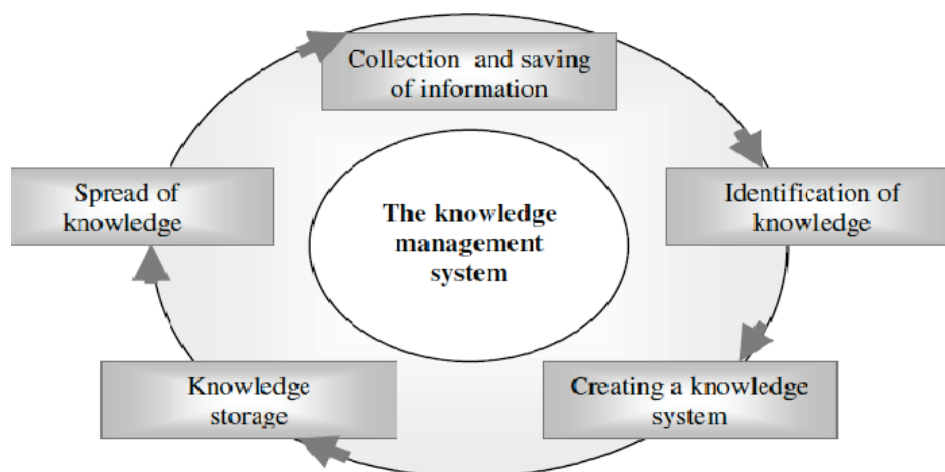


Figure 2. The knowledge management system

Kanapeckiene, L., Gribniak, V. (2008). *Žinių valdymas ir aukštasis mokslas. Pedagogika-Pedagogy studies*(85), 25.

Implications

Today the challenge faced by most KM systems is the lack of ability to integrate the capture and transfer of actionable, articulated and explicit knowledge (Delen, Al-Hawamdeh, 2009). The framework focuses on the integrated collection of knowledge from all levels in the institution and its dissemination for application at the points of use. Retirements, resignations and restructuring of activities leads to the phenomenon of “knowledge drain”, particularly the tacit knowledge that resides in the minds of the people. This results in loss of useful knowledge from the organization. The challenge in minimizing knowledge loss is the ability to identify the knowledge sources and the necessary measures to ensure knowledge retention and utilization (Delen, Al-Hawamdeh, 2009). The framework offers opportunities to institutes to grow from a individual level to a cross functional and cross organizational knowledge sharing culture. Storage of the organizational knowledge in the knowledge repository as a central resource results in the availability of knowledge anywhere, anytime. Past experiences and data on failures and mistakes, if captured and stored, help to apply corrective and preventive measures to the

newer domains. A centralized approach towards storage of organizational knowledge provides opportunity for collaborative work environment leading to better products and services. The main parts of this model become three blocks, in which the logics of non-stop learning: "learning before", "learning during the process", "learning after" is projected. This model is interesting because it is based on the understanding, that "learning in process" is as systematic process. The system is also shown not only in cognitive activities, it is very important, because there is a systematic understanding of own activity and understanding of the activities of others, the transformation to meta-knowledge level is going on. It is necessary to mark, that while introducing this model it is necessary to think about cultural and social country's environment, differences, which have influence on the functioning of the system. Finally, the cultural environment of the organization will have influence, which will not allow mechanically introduce the model created by foreign scientists

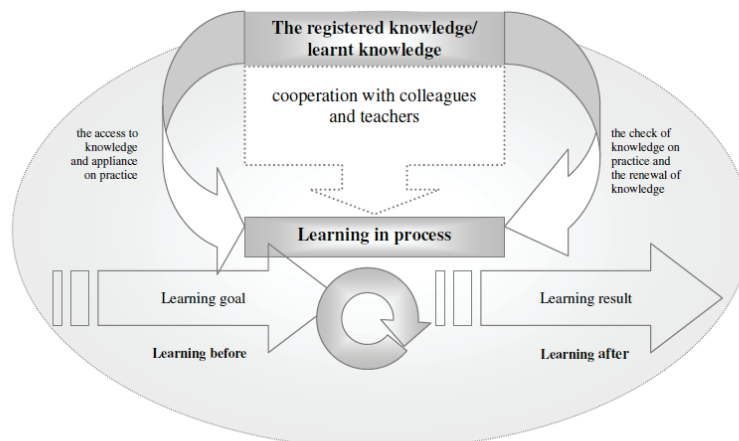


Figure 3. The holistic model of knowledge management

Source: Collison, C., Parcell, G. (2003). *Learning to Fly: Practical Lessons from one of the World's Leading Knowledge Companies.*

Conclusion

Education institutions have come to face pressures similar to the private sector. Private colleges are experiencing huge challenges due to the structural change in the education industry in India. In order to deal with the cutting edge competition, management has to adopt new models in search for excellence. It seems reasonable to propose management techniques such as KM and related strategies to enhance quality and performance. Knowledge Management (KM) helps an entity making the collective information and experience available to individual workers. Today, educational institutions need to be efficient to tackle problems from cross functional, cross organizational, ethical and cultural perspectives and equipped with tools to achieve excellence. For that they need to develop a thriving knowledge sharing culture and look beyond the technology to achieve their goals and objectives. From the results of the survey as discussed in

the paper, the authors conclude that IT based KM intervention in EIs can prove to be a promising techno management tool to enhance performance in the vital areas of teaching and learning, research and administrative services. Based on the results, the authors have presented a conceptual framework for the development and refinement of knowledge management systems in higher educational institutions. The authors feel that if implemented, the framework will yield more benefits to improve the quality of knowledge sharing and use. The approach will enable higher educational institutes to proactively respond to the needs of the stakeholders and acquire enhanced capability to plan and develop. As institutions launch knowledge management initiatives, they can learn lessons from their counterparts in the corporate sector. Some key points to remember are:

Start with strategy. Before doing anything else, determine what you want to accomplish with knowledge management.

i. Organizational infrastructure—human resources, financial measurements of success, and information technology— should support knowledge management.

ii. Think of technology as an enabler, and measure the impact of KM in financial terms, such as cost reductions, customer satisfaction, and speed to market.

iii. Seek a high-level champion for the initiative— someone who believes in its benefits and who can advocate as needed.

iv. Select a pilot project for knowledge management— ideally one with high impact on the organization but of low risk to build credibility for knowledge management. If possible, make the pilot one that participants will enjoy and find rewarding.

v. Develop a detailed action plan for the pilot that defines the process, the IT infrastructure, and the roles and incentives of the pilot project team.

vi. After the pilot, assess the results and refine the action plan. . While creating a successful knowledge management system, first of all it is necessary to describe and register intellectual funds of a high school. Next step is the creation of methodology for knowledge receiving, collecting, transmitting and formation of a process. To continue solving problems of knowledge formation, transmitting, periodical and final evaluation process optimization, the spread of knowledge and innovative tasks among high school employees and transmission of it to new employees, students is indispensable. A constant control and monitoring mechanism makes it possible to make optimal decisions. The development of knowledge management system's steps is shown by socio-cultural ability to create new knowledge and new ideas for transmission and management technologies. But an effective functioning of a knowledge management system and development is impossible without an individual as a socio-cultural system element, and motivation development.

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