Knowledge Management in Academic Research and its significance in Higher Education

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Abstract: **Knowledge is considered as the important factor for the prosperity of the learning institution/university. This is great concern to higher education because knowledge is the primary driver in the generation, accumulation and dissemination of knowledge. The value of the institution/university depends on its capacity to create and share knowledge. In this article, I will discuss the knowledge management in academic research and its significance in higher education. First I will discuss the key objective of knowledge management in higher education and its process. Next, I will examine the various governing bodies in India which are responsible for the enhancement of knowledge management at university and college level and which one is responsible for the evaluation of knowledge management. Third I will discuss about the benefits of knowledge management and its prospects in higher education and linkage between information and communication technology with knowledge management in higher education. The main purpose of this chapter is to provide information about the governing bodies and its role in promoting and evaluation of knowledge management in academic research and higher education.**

Introduction

Any educational institute/college/university is an intellectual capital which employs knowledge, intelligence, creative ideas and the ability to continuously improvement. Alavi and Leider[2001] believe that is simply information processed in the minds of an individual and that it is personalized information related to facts, procedures, concepts, interpretations, ideas, observation and judgments.Knowledge management is a discipline that started two decades ago. Knowledge management is a field that can easily be described as two sided coin: one that tends to focus on knowledge sharing i.e., organizational learning and the other that tends to focus on knowledge making i.e., innovation management. Academicians are the one who possess both the qualities of knowledge sharing and learning. Knowledge may be shared without being exhausted. In fact sharing may be expected to results in increased feedback, acquisition of new knowledge and modifications and adjustments to current knowledge. Knowledge is considered as an important factor for the success of an educational institute.

Knowledge management can be defined as "The process of transforming knowledge in the form of information and intellectual assets into persistent value". Knowledge management tools have its importance in collaboration, communication, trust and sharing of expertise / knowledge / information. People involve in knowledge management learn from each other's practical experiences. Knowledge management is not only gaining information or knowledge, but also it is the practical implication of knowledge. Knowledge management in academia plays an important role in developing the new generation of knowledge people, which will further enhance the social system of the country.

There is a difference between information and knowledge. The information is what we have the unprocessed data, focused on a topic and filled with bias, whereas knowledge has two characteristics i.e., first productive how we assemble the unprocessed facts by using our previous knowledge and transforming it through our evaluation process and expressing it to a productive level and second knowledge is theoretical based on the facts where we can predict the usage of theory and change it according to practicality. Knowledge is process of improving self, enhancing the change according to environment, situations and technology. Knowledge is of two type tacit knowledge and explicit knowledge. Tacit knowledge is one which cannot be expressed in figure or language, it is hidden in the mind of an individual and explicit knowledge can be communicated or expressed easily to others.

Knowledge management generally refers to how institutions analyze and manage knowledge as an institutions resource. Higher education knowledge management also relates to both kinds of knowledge, implicit and explicit. Knowledge management in higher education can be possible through the approach that enables people within the organization to develop a set of practices to collect information and share what they know, leading to action that improve services and outcome of the organization. Current progress in Information and Communication Technology (ICT) helps teaching faculties to create and share high-quality multimedia contents through web based knowledge sharing system. The traditional methods of teaching are also replaced by the latest technique of teaching through e- teaching or e- learning methods. These methods help in acquiring the lots of information from different corner of the world and accumulating it at one point.

As the external scenery increased burden upon institutions of higher education to become more productive and business like, it is not astonishing that business management techniques are promoted as the best vehicle for change [Ewell, 1999]. In the age of information technology, the management techniques that have been the most popular in the private sector pertain to e-business has been implemented in government sector too, the art of combining market place with high technology and opportunities provided by the Internet. E-business initiatives are also becoming common in academic research and higher education, with web-based portals linking academic units to shared databases and common business rules [Katzetal, 2000]

In this environment of increase external and internal pressure for improvement at the research and higher educational level, the information needs of university professors and college fraternities have never been greater, however threat of information overload

are real. Academicians have embraced information technology since the age of the main frame computer, which has resulted in the development of techno-centric institutional infrastructures, electronically- driver business cores, and wired classrooms in colleges and universities throughout the world.

University/institute administration are forced to adapt the external demand such as nationwide assessment of universities by HRD ministry, statewide assessment by higher educational department and various other affiliation centers. Even more than standardized tests, possessing highly qualified professional teachers are also crucial, which requires change in the work process of administration of education institutes. These includes the need for ongoing and effective professional development of the teacher fraternities at the same time teachers are also enforced to remain updated with extensive diversity of standards, curricula and instructing methods

Process of Knowledge management in Academic research

The process of knowledge management in academic research and in higher education has the four steps- First capturing/generating knowledge, here the academician generates new ideas/thoughts through their extensive research work, faculty development program, seminar, workshop etc. Second, consolidating/organizing knowledge where academician decide how much knowledge he/she can explicitly expressed and how much to be hidden in the mind. Third refining/synthesizing and analyzing the knowledge i.e., whatever the knowledge gained where to use it and how to use it. Forth is transferring/sharing/communicating the captured knowledge to the students, customers or business persons so that they can understand, in this step academicians implement the knowledge captured in to an action and spread it to wide variety of people.

Figure 1: Process of Knowledge Management
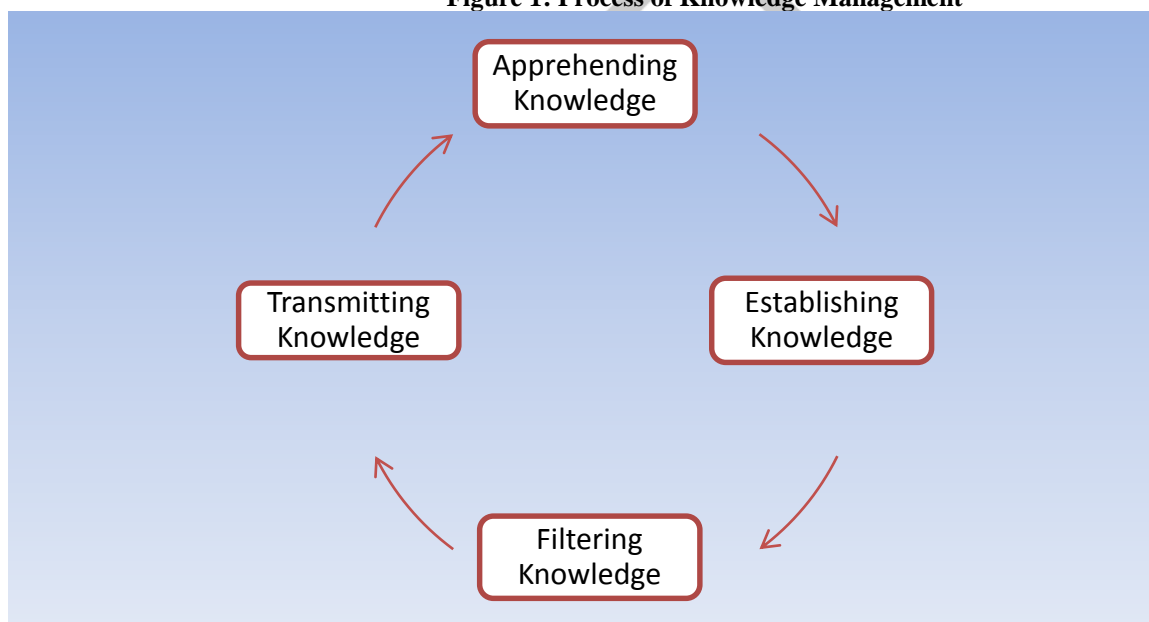
Objectives of knowledge management in Academic Research
1. Productivity : Usage of knowledge transfer, reuse of information and expertise
2. Efficiency : Providing right information at right time and facilitating communication flow
3. Capitalization : Systematic and methodological accumulation of intellectual assets
4. Visibility : Presentation to the external clients (Seminars) and Internal clients (Students)
5. Value-added : High quality service, delivery of lectures and know how about the latest information

Various governing bodies of Knowledge Management and their role in Higher Education and Research
Information practices and learning strategies which is considered as knowledge management are gaining importance 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. Several education institutions and universities across the country are receiving grants to implement knowledge management practices from University Grand Commission (UGC). Knowledge management investment in academic institutions are likely to focus added value to academic research, teaching and effective administration. There are several governing bodies which initiate implementation of knowledge management at the higher educational level, some of which we will discuss in this chapter.

1. **University Grand Commission (UGC)**: For the purpose of implementation of knowledge management UGC has given provision of Academic Staff College to every university, the main purpose of the academic staff college is to share the knowledge and enhance research development and orientation program to the faculties of higher education from the university, affiliated colleges, and for the research scholars of higher education. Other than this UGC have different schemes which grants money for the research in different areas individually as well as to the whole department. These schemes are:

- **Special Assistance Program (SAP):** The scheme aims at promoting research in all domains of knowledge. The institutions of higher learning under the scheme are supported at three different levels namely Department Special Assistance (DSA), Departmental Research Support (DRS) and Centre for Advanced Study (CAS).
- **Universities with Potential for Excellence (UPE):** The UGC assists selected Universities with a vision to achieve excellence in teaching and research by conferring on them the status of 'Universities with Potential for Excellence (UPE)'. Such institutions are eligible for enhanced funding to augment their academic and research infrastructure and also to evolve innovative approaches towards the teaching-learning process
- **Centre with Potential for Excellence in Particular Area (CPEPA)**: CPEPAs have been set up to encourage and facilitate the chosen departments at the selected universities so that they can collaborate across the departments by dismantling the discipline barriers. They are free to launch new and innovative academic, research and extension programs and to strive to achieve global standards of excellence.
- **Major and Minor Projects:** UGC provides financial assistance to teachers teaching in Universities and Colleges to promote excellence in teaching and research. Research project may be undertaken by an individual teacher or a group of teachers
- **College with Potential Excellence (CPE):** The UGC has launched this scheme to foster excellence in teaching and research in colleges. The scheme provides financial support to help improve the colleges, their academic and physical infrastructure, introduce innovative teaching methodologies and implement modern learning and evaluation methods.
- **Singh-Obama 21st Century Knowledge Initiative**: This is a joint initiative of the Government of India and the United States of America to foster partnerships between educational institutions of both the countries in the field of higher education and research. The main aim of the scheme is to forge linkages amongst institutions of higher learning from both the sides so that they can collectively address the grand challenges in areas like Energy Studies, Sustainable Development, Climate Change, Environmental Studies, Education and Educational Reform & Community Development and Innovation, Urban and Rural Development etc.
- **Academic Staff Colleges**: UGC has set up 66 Academic Staff Colleges (ASCs) in different Universities/ Institutions in the country. The Academic Staff Colleges so established are conducting specially designed orientation and refresher programs for the teachers. The UGC has been providing full financial assistance to the host Universities/ Institutions to run the affairs of the Academic Staff Colleges. In order to support its efforts to enhance the quality and excellence in higher education, the UGC has launched a specific program to enhance the faculty resources of the Universities. This scheme of the UGC has got two components namely Faculty Recharge Program, and Enhancing Faculty Resources in Universities.

Other than the above schemes and research support UGC has also given point based on the research work done by the faculties of the universities and colleges, which are known as Academic Performance Indicators (API). Based on the API score promotion of the faculties from assistant professor to associate professor then professor can be possible. These score are mostly based of research articlesin referred and non-referred journal (20-5based on impact factor of the journals),Books published by national and international publisher and local publisher with ISBN number (20, 30 and 10), Research project major and minor (20, 15 and 10 based on grants) and Research guidance to students (PhD completed 10, Pursuing 7). Refresher courses (20 point/ week) etc.

In order to make the system more credible, universities may assess the ability for teaching and research aptitude through a seminar or lecture in a class room situation or discussion on the capacity to use latest technology in teaching and research at the interview stage. These procedures can be followed for both direct recruitment and for promotions.

Sub Category	Cap as % of API cumulative score in application
A.　Research Papers (Journals etc.)	30%
B.　Research Publications (Books etc.)	25%
C.　Research Projects	20%
D.　Research Guidance	10%
E.　Training courses/Conference/Seminar	15%

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2. **Indian Council of Social Science Research (ICSSR):** This council helps in providing opportunities for conducting research in the field of higher education. The council carries out various research activities in the field of social science. The main functions of ICSSR are:
   - Reviewing the progress of the research and providing advice to the research scholar.
   - Sponsoring the research project and administering grants to institutions and individual for research.
   - Administering scholarship and fellowships for research
   - Indicate areas where research is needed
   - Provide financial support to institutions, associations and journal in the field of research.
   - Organize technical training in research methodology and deliver guidance in research.

3. **National Institute Ranking Framework (NIRF)**

The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Ministry of Human Resource Development on 29th September 2015. The methodology draws from the overall recommendations broad understanding arrived at

by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions. The parameters broadly cover "Teaching, Learning and Resources," "Research and Professional Practices," "Graduation Outcomes," "Outreach and Inclusivity," and "Perception". India Rankings – 2016 based on this framework were released on 4th April 2016. For the second parameter like Research and professional practices like patents etc. the data will be populated from internationally available Data Bases (like Scopus, Web of Science, the Indian Science Index or other suitable sources as deemed appropriate by NIRF). Some of these are indicated in the Assessment Metrics for the teaching faculties. NIRF shall directly access data from these resources, or seek help from the resource publishers, as necessary to access the institutions.

Conclusion

The most important thing about knowledge, once it has been acquired or created, is putting it to proper use. For this to happen, colleges, institutions and universities must have the capability to understand the nature of knowledge as a strategic asset [Tecce, 1998]. This exemplifies the need for knowledge management, which requires a useful framework that will allow academicians to better understand the extent of their current stock of institutional knowledge and then, once having decided what changes are needed to develop a sustainable competitive advantage, to monitor the processes they initiate to implement those changes with appropriate performance measurement metrics

References:

Ewell, P.T. (1999). *Imitation as art: Borrowed management techniques in higher education*. Change, 31(6), 10-15

Katz, R. N. &Oblinger D.G. (Eds) (2000). *The "E" is for everything: E commerce, e-Business, and e- Learning in the future of higher education*. San Francisco: Jossey Bass.

www.ugc.ac.in

Tecce, D.J. (1998), *Research directions for knowledge management*. California Management Review, 40(3), 289-292

https://www.**nirf**india.org

Alavi, M., &Leidner, D.E, (2001), *Knowledge management and knowledge management systems: Conceptual foundations and research issues*. Management Information Systems Quarterly, 25(1), 107-136, DOI: 10.2307/3250961.