

Assessment of Knowledge Management Practices in Indian Universities



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Rahul Kulkarni

Smt. S. M. Agrawal Institute of Management
(prof.rahulkulkarni@gmail.com)

There is need to identify, develop, record and utilize knowledge of experts in higher education domain. Universities are generating huge knowledge useful in academics, administration and research, but not having strong mechanism to capture, store, process and utilize knowledge. Universities in Maharashtra can also enjoy the benefits of Knowledge Management and can make their existing e-Governance practices more effective and efficient. Assessment of existing KM practices in Universities including Personal Knowledge Management Practices among University stakeholders conducted. A model for effective KM in Universities is proposed which will be guiding force for institutions of Higher Education.

Keywords: KM, Personal Knowledge Management, University, E-Governance

1. Introduction

In new age economy, many entrepreneurial opportunities are created and knowledge management is one of the promising areas for entrepreneurs. As large number of organizations are joining knowledge management league, more such opportunities are created. Not only profits making companies but also non-government organizations and public institutions like universities have also realized the importance of knowledge management in their organization and looking for fruitful results out of the knowledge management based processes. But as not all can appoint fulltime expert employees for knowledge management tasks, entrepreneurial opportunities exist in the areas including consultancy, knowledge capturing services, knowledge sharing services, knowledge storing services, knowledge analytics. In Maharashtra as private universities are coming up, they would like to follow best practices of private universities in the country and the world. As organizations have realized importance of knowledge sharing and knowledge management more and more entrepreneurial opportunities will be created and there is need of experts in knowledge management domain with entrepreneurial aptitudes to grab this opportunity.

Knowledge Management (KM) refers to practices used by organizations to find, create, and distribute knowledge for reuse, awareness, and learning across the organization. Knowledge Management programs are typically tied to organizational objectives and are intended to lead to the achievement of specific outcomes such as shared intelligence, improved performance, or higher levels of innovation.

Knowledge Transfer (an aspect of Knowledge Management) has always existed in one form or another through on-the-job discussions with peers, apprenticeship, and maintenance of agency libraries, professional training and mentoring programs. Since the late twentieth century, technology has played a vital role in Knowledge Transfer through the creation of knowledge bases, expert systems, and other knowledge repositories.

To understand knowledge management and knowledge transfer, it is helpful to examine the differences between data, information, and knowledge.

Data is discrete, objective facts. Data is the raw material for creating information. By itself, data carries no judgment, interpretation or meaning.

Information is data that is organized, patterned and/or categorized. It has been sorted, analyzed and displayed, and is communicated through various means. Information changes the way a person perceives something, thus, affecting judgment or behavior.

Knowledge is what is known. It is richer and more meaningful than information. Knowledge is gained through experience, reasoning, intuition, and learning. Because knowledge is intuitive, it is difficult to structure, can be hard to capture on machines, and is a challenge to transfer. We often speak of a "knowledgeable person," and by that we mean someone who is well informed, and thoroughly versed in a given area. We expand our knowledge when others share theirs with us. We create new knowledge when we pool our knowledge together.

Knowledge Management Strategies and Tools: There are many ways for an organization to identify, store, and transfer knowledge. Some strategies will work better in one organization than another. Some may not be appropriate for specific types of content. The challenge is to identify and develop complementary ways to further knowledge management and transfer in an organization.

After Action Reviews: These debriefings are a way to identify, analyze, and capture experiences, what worked well and what needs improvement, so others can learn from those experiences. For maximum impact, after action reviews should be done

either immediately following an event or on a regular basis, with results shared quickly among those who would benefit from the knowledge gained.

Best Practices: The identification and use of processes and/or practices that result in excellent products or services. Best practices, sometimes called preferred practices, often generate ideas for improvements in other organizations or work units.

Co-op/Internships: Formal arrangements are established for an experienced person to pass along knowledge and skills to a novice. In New Hampshire State government, the Co-op/Intern Educational Placement Program serves as a recruiting tool for agencies. The program helps agencies meet their short-term staffing needs in critical skill areas. It also serves as a mechanism for students to obtain practical on-the-job experience and academic credit as part of their educational experience.

Communities of Practice: Groups of individuals who share knowledge about a common work practice over a period of time, though they are not part of a formally constituted work team. Communities of practice generally cut across traditional organizational boundaries. They enable individuals to acquire new knowledge faster. They may also be called Communities of Interest if the people share an interest in something but do not necessarily perform the work on a daily basis.

Documenting Processes: Developing a written or electronic record of a specific work process that includes the business case for the process, steps in the process, key dates, relationship to other processes that come before and after, key players and contact information, any required references and legal citations, back-up procedures, and copies of forms, software, data sets, and file names associated with the process.

Document Repositories: Collections of documents that can be viewed, retrieved, and interpreted by humans and automated software systems (e.g. statistical software packages). Document repositories add navigation and categorization services to stored information. Key word search capability is often provided to facilitate information retrieval.

Expert Interviews: Sessions where one or more people who are considered experts in a particular subject, program, policy, or process, etc. meet with others to share knowledge. Expert interviews can be used in many ways, including capturing knowledge of those scheduled to leave an organization, conducting lessons learned debriefings, and identifying job competencies.

Job Aids: These are tools that help people perform tasks accurately. They include things such as checklists, flow diagrams, reference tables, decision tree diagrams, etc. that provide specific, concrete information to the user and serve as a quick reference guide to performing a task. Job aids are not the actual tools used to perform tasks, such as computers, measuring tools, or telephones.

Knowledge Audits: Knowledge audits help an organization identify its knowledge assets, including what knowledge is needed and available. They provide information on how knowledge assets are produced and shared, and where there is a need for internal transfer of knowledge.

Knowledge Fairs: These events showcase information about an organization or a topic. They can be used internally, to provide a forum for sharing information, or externally, to educate customers or other stakeholders about important information.

Knowledge Maps and Inventories: These catalog information/knowledge available in an organization and where it is located. They point to information but do not contain it. An example is an Experts or Resource Directory that lists people with expert knowledge who can be contacted by others in need of that knowledge.

Learning Games: These structured learning activities are used to make learning fun and more effective, provide a review of material that has already been presented in order to strengthen learning, and evaluate how much learning has occurred.

Mentoring: In mentoring, an experienced, skilled person (mentor) is paired with a lesser skilled or experienced person (protégé), with the goal of developing or strengthening competencies of the protégé.

On-the-Job Training: Most organizations use some form of on-the-job training where an experienced employee teaches a new person how to perform job tasks. If this happens at random or with no consistent written materials or processes, it is called unstructured OJT. A system of structured OJT differs in that specific training processes are written; training materials and guides exist and are used consistently by all those who train; training is scheduled; records are kept of training sessions; and "trainers" are given training on how to do OJT, how to give feedback, and several other factors.

In India NUEPA – National University of Educational Planning & Administration is active in research related to Knowledge Management in Higher Education. Many Indian universities are following Knowledge Management practices but there is need for more focused and structured.

2. Review of Literature

IBM in its publication ‘Trust and knowledge sharing: A critical combination’ concludes that, Fostering knowledge sharing is more than simply putting people together in a conference room or sending them on experiential learning programs. It is about creating an environment in which people are able to discern whether their colleagues are both knowledgeable and willing to extend their knowledge to the benefit of others. Without building a sense of competence- and benevolence-based trust between the knowledge seekers and sources, firms will find it difficult to take advantage of perhaps their most valuable resource, their employee know-how. Although trust is negotiated by people firsthand, managers can play a substantial role in creating the conditions through which trust is developed and fostered.

Stephen Gourlay in his article, ‘The SECI model of knowledge creation: some empirical Shortcomings’ states that, it is important to manage knowledge for a variety of reasons, then it is equally important that we have good models to assist this process. Nonaka and his colleagues’ model, in particular the SECI matrix of knowledge conversion, is increasingly being cited by authors in a widening set of disciplines, and has evidently achieved something like a paradigmatic status.

Yogesh Malhotra of Syracuse University, USA in his paper, ‘The Knowledge Application Gap in Information Systems Research and Education and their Quest for the Dependent Variable’ states that, In the information resource management and information systems literatures, the quest for the dependent variable has emphasized the need to connect the information resource and technology inputs to specific performance outcomes. In other words, research studies and frameworks involving adoption and implementation of new technologies and business technology innovations need to include realistic implications for performance outcomes.

Halil Zaim in his paper, ‘Knowledge Management Implementation in IZGAZ’ states that, Managing knowledge efficiently and effectively is considered a core competence for organizations to survive in the long run. The capability of organizations to leverage their knowledge resources seems to be one of the most important parameters from the strategic perspective. Nevertheless, the evolution and implementation of Knowledge Management is still in its infancy in Turkey, leading to the difficulty in composing a comprehensive and applicable KM framework for organizations in Turkey.

Karl M. Wiig of Knowledge Research Institute, Inc. Arlington, Texas, USA in his paper, Application of Knowledge Management in Public Administration states that, Knowledge Management (KM) plays important roles in Public Administration (PA). Each role serves specific constituencies and purposes and is implemented differently. Jointly, they build society’s intellectual capital (IC) to improve the effectiveness of public and private decision making and situation handling. Four Public Administration KM areas are considered: Enhance decision making within public services; Aid the public to participate effectively in public decision making; Build competitive societal IC capabilities; and Develop knowledge competitive work force. Numerous KM approaches are adopted to serve these purposes.

Jeffrey Cummings in article ‘Knowledge Sharing: A Review of the Literature’ states that, Since 1996, when the Bank made a commitment to become a global knowledge bank, it has taken numerous steps to improve its information systems, strengthen internally and externally focused knowledge-sharing activities, and foster broader global knowledge-sharing initiatives, all in support of enhancing the Bank’s and its partners’ and clients’ access to and sharing of ideas

In paper Knowledge Management and Higher Education: A UK Case Study, Desireé Joy Cranfield and John Taylor of University of Southampton, UK states that their Case Study utilizes Stankosky’s Knowledge Management pillars to enterprise learning – leadership, organization, technology and learning - as a lens to investigate and understand Knowledge Management practices and perceptions within Higher Education Institutions, looking at challenges of implementation within this sector. Higher Education Institutions within the United Kingdom are very complex institutions, with diverse backgrounds, history, culture, resources and missions. The University presents itself in today’s knowledge economy with a dichotomy of priorities, one which aims to provide quality teaching and research activity, and the other, to ensure effective and efficient management and administration within an increasingly competitive market.

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The requirement by the Office of Public Sector Development Commission of Thailand, has listed KM as a key indicator in measuring a university’s performance .It states that the successful level of KM practice in a university is a primary factor in measuring the university’s performance.

Thai universities, including Khon Kaen University (KKU), use KM as a tool for improving university performances by focusing on general management works

However most of the Thai universities have not been able to successfully implemented KM due to a lack of good KM strategic planning.

Adil Laoufi of Morocco in his paper Using Knowledge Management in higher education states that the work in the Czech Republic (Czechoslovakia), presented in (Mikulecká,2000). This work demonstrates the importance of the KM in universities and colleges by giving some examples of KM processes such as student registration, budget allocation, etc. Similar work was done by the ISKME U.S. research institute. This paper explores the extent of the KM approaches in education; it also presents a roadmap for the next coming years. The main objective of this work was to propose recommendations for practical solutions to improve knowledge sharing and reform decision-making within university institutions. Other more recent proposals address the application of KM in universities using the ERP (Enterprise Resource Planning) and e-learning.

3. Methodology

The study has adopted Popular Research Methodology normally adopted in conducting Management Research. The research adopted is 'Descriptive and Analytical method'. The Research Methodology considered popular methods for understanding collection of data, editing, classification and interpretation of data. The objectives of the study were kept in mind to develop a supportive research methodology.

Significance of the Study: There is need to identify, develop, record and utilize knowledge of experts in Higher Education system. Universities are generating huge knowledge useful in academics, administration and research. But not so strong mechanism exists to capture, store, process and utilize knowledge in the university system. Universities in Maharashtra can also enjoy the benefits of Knowledge Management and can make their existing e-Governance practices more effective and make the university system more efficient. Therefore it is needed to understand the existing corporate practices in Knowledge Management, its application to University system, assessing existing KM practices in Universities including Personal Knowledge Management Practices among University authorities and officers. The problems in KM in Universities also need to understand. A model for effective KM in Universities needs to be proposed which will be guiding force for institutions of Higher Education.

As per discussions conducted for the research purpose with experts including university officials Information Communication Technology experts, members of academic authorities, the study titled 'A Study of Knowledge Management Practices in Select Universities of Maharashtra' was initiated.

The present study is conducted with the following objectives

1. To understand Corporate Knowledge Management Practices and its applicability in Universities.
2. To assess existing Knowledge Management practices in Select Universities in Maharashtra
3. To study personal knowledge management practices among authorities and officers of universities.
4. To understand significant benefits of Knowledge Management in Select Universities of Maharashtra.

Primary data is collected with the help of structured questionnaires/Interview. Four universities of Maharashtra namely North Maharashtra, Dr.BAMU, Pune and Tilak Maharashtra are considered for study.

Collection of data from University stakeholders including

- University officers
- University Authorities
- University Associates - Administration
- University Associates – Academic

4. Conclusion and Discussion

Laptop is the most preferred computing device used for storing, processing and sharing information by university officers followed by desktop pc, smartphone and tablet or PDA.

1. As per as the Personal Information Management (PIM) practices of University officers are concerned, majority of university officers add information to their Personal Information Management tool once a week. Considerable one fourth adds information on daily basis. Monthly basis backup of data is preferred by university officers. Half of the university officers retrieve information from their Personal Information Management tool on daily basis.
2. Email is the highly used medium by university officers for sharing valuable information/knowledge to their University colleagues. While very few use social networking for sharing valuable information/knowledge. The use of professional information integration software like IBM Notes, blackberry tools etc. is limited to about one fifth university officers. There are some universities officers who only use pen drive to share valuable information/knowledge and avoid using email or social networking or blackberry like services.
3. University officers suggested to have written knowledge management/sharing policy or strategy as currently it does not exist as per opinion of most of the officers.
4. Even though universities do not have written knowledge management/sharing policy but currently Universities do have a value system or culture intended to promote knowledge Sharing.
5. Universities does not have has Policies or Programs intended to improve employee retention and officers recommend to have same.
6. Universities have partnerships or strategies alliances to acquire knowledge and officers found it very useful practice.
7. Universities do not have formal KM unit or post of Knowledge Officer. Also definite criteria assessing employee KM/Sharing performance does not exist. It is recommended by officers.

8. Half of the offers are of the opinion that KM is the primary responsibility of top management while half say that it is primary responsibility of middle management in the university.
9. Universities are using knowledge obtained from other Institutes of Higher Education. Knowledge from industry need to be used as currently it is not much used by universities.
10. Universities are extensively using the Internet to obtain external knowledge and have dedicated resources to obtain external knowledge. Also universities are encouraging staff to participate in project teams with external experts.
11. Currently universities are not providing formal training related to knowledge management practices to its officers and officers have suggested same to be implemented.
12. Universities are not much using formal mentoring practices and offers have suggested implementing same. Universities are encouraging experienced officers to transfer their knowledge to new or less experienced officers.
13. Universities encourage staff by sponsoring their projects from University Fund. Also Universities offers training to officers or sponsors for outside training in order to keep their skills updated.
14. The documentation of good work practices, lessons learned or listings of experts is rarely done at universities. Also training manuals, exit interview tips etc. are not much maintained by universities. These practices are recommended by university officers.
15. All Universities facilitates ICT to its officers for effective communication. Universities organize soft skill training for its officers which also helps in higher knowledge sharing practice.
16. Currently universities are not paying monetary incentives to officers for their contribution in KM practices and most of the university officers are not implementing the monetary incentive scheme for KM contribution. So also non-monetary incentive scheme for contribution to KM does not exist in any university and majority of officers are not of the opinion to have such incentive scheme.

Knowledge Management tool recommended by university officers according to importance given by them for implementation are as follows –

- Sharing Best Practices
- After Action Reviews (AAR)
- Implement Knowledge Plan [Based on knowledge strategy] & Establishing Knowledge Centers
- Communities of Practice (COP)
- Exit Interviews
- Peer Assists
- Knowledge Audit
- Knowledge Harvesting

5. Recommendations

From the present study we make following recommendations for improving Knowledge Management Practices in Universities of Maharashtra

1. Very importantly, mutual trust among university officers must be created and nourished for better and better knowledge sharing practice. Top management of the university should adopt formal and informal means for same.
2. The universities should train its officers in efficiently and effectively using Personal Information Management (PIM) tools as this will prepare them for better contribution in Knowledge Management and Knowledge Sharing practices of the university.
3. Universities must understand the importance of Knowledge Management and have written policies and strategies for its implementation. The full time Knowledge Management officer must be appointed for formal leadership to KM practices.
4. The value system or culture for promoting knowledge sharing must be made stronger.
5. Universities must have Policies for employee retention as many new opportunities exist for university officers particularly in private universities, employees which are asset for the organization must be retained.
6. Universities should have partnerships or strategies alliances with more and more number of professional organizations and institutes of higher education, research to acquire knowledge which will help in keeping their officers updated.
7. Universities should have definite criteria assessing employee KM/Sharing performance.
8. The responsibility of knowledge management must be properly assigned to officers at all level.
9. Universities should make more and more partnerships with industries so that updated knowledge from industry will help in updated curricula, teaching methods and research objectives.
10. Universities should provide formal training related to knowledge management practices to its officers and officers.
11. Universities should have formal mentoring practices. The knowledge flow of senior officer to new or less experienced officer need to be encouraged.
12. Universities should have considerable budget for sponsoring projects of officers from University Fund and efforts should be made for more and more good projects from university fund. Also dedicated training center must be established for training university officers in order to keep their skills updated.
13. The documentation officers must be appointed and documentation of good work practices, lessons learned or listings of experts should be done.
14. Training manuals, exit interview tips etc. to be maintained by universities.

15. Universities should adopt latest ICT devices and train their officers for same. Also regular soft skill training for its officers is necessary which will also help in comfortable knowledge sharing practice.
16. University staff must be recognized and awarded for their contribution to KM activities in the university. This will motivate others for higher contribution in KM.
17. Taking university officers in confidence combination of tools mentioned below must be implemented in the university for improved Knowledge Management practices
 - Sharing Best Practices
 - After Action Reviews (AAR)
 - Implement Knowledge Plan [Based on knowledge strategy] & Establishing Knowledge Centers
 - Communities of Practice (COP)
 - Exit Interviews
 - Peer Assists
 - Knowledge Audit
 - Knowledge Harvesting

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