

# Knowledge Management Application in University System

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**Abstract** – Knowledge Management after proving its effectiveness for corporates is attracting other domains. Higher education system is one of such where application of knowledge management practices can make system effective, efficient, knowledge based and future ready. Globally several universities are already practicing knowledge management. In Maharashtra, one of the prominent states of India, ministry of higher education is in process of implementing new university act called as Maharashtra public university act. All state universities will follow this new act. The act proposes establishment of knowledge resource centres and proposed a new committee called as knowledge resource committee for administering, organizing and maintaining knowledge resource centres. Considering this development, there was need to check preparedness of universities for application of knowledge management and their current practices for same. The feasibility study for application of knowledge management practices in select universities of Maharashtra was conducted and its results are presented in this paper. The study results are very useful for knowledge management implementation in universities.

**Keywords** - Knowledge Management, Personal Knowledge Management, University, e-Governance, Maharashtra

## I. INTRODUCTION

As large number of organizations are joining knowledge management league, more such opportunities are crated. 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 exists 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 county 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.

## II. REVIEW OF LITERATURE

**Karma Sherif and Bo Xing** in their paper, ‘Adaptive processes for knowledge creation in complex systems: The case of a global IT consulting firm’, concludes that, the capture and dissemination of knowledge is not enough in managing knowledge; organizations are constantly battling with change. But having a knowledge repository may actually stifle innovation as users may try to frame new encounters as old experiences and fail to see the need for change. Feedback loops can facilitate the process of updating the memory; getting rid of obsolete assets and shedding light on those with favourable outcomes.

**Jayanthi Ranjan and Saani Khalil**, in their paper titled ‘Application of knowledge management in management education: a conceptual framework’, states that there have been many firms and organizations that have implemented KM principles, methods, practices or tools. However, academic institutions in particular management institutes have taken more interest recently in introducing KM approaches. From the academic learning point of view Knowledge Management by its nature especially is suitable. Business schools use information technology based tools for admissions, registrations, time table processing and performance evaluations of their faculty, students, staff and administrations.

**Oye, N.D., Mazleena Salleh and Noorminshah**, in their paper titled, ‘A Knowledge Sharing in Workplace: Motivators and Demotivates’, states that, Knowledge and its efficient management constitute the key to success and survival for organizations in the highly dynamic and competitive world of today. Efficient acquisition, storage, transfer, retrieval, application, and visualization of knowledge often distinguish successful organizations from the unsuccessful ones, and are essential for management of knowledge.

**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

### III. RESEARCH METHODOLOGY

#### Objectives:

- To understand Corporate Knowledge Management Practices and its applicability in Universities.
- To assess existing Knowledge Management practices in Select Universities in Maharashtra
- To understand significant benefits of Knowledge Management in Select Universities of Maharashtra.
- To understand problems in existing university system for implementation of Knowledge Management.

Expected outcomes of the project –

The status of Knowledge Management Practices in North Maharashtra University and other select universities of Maharashtra will be known. Further possible applicability of Knowledge management practices for improving the University performance through increased efficiency and innovation in North Maharashtra University and other universities of Maharashtra can be known. Model for effective Knowledge Management for Universities in Maharashtra can be built which is likely to be guiding force for Knowledge Management in Universities for improving the organization's performance through increased efficiency and innovation.

In nutshell, the Study will provide important input to universities for improved performance, competitive advantage, innovation, sharing of lessons learned, integration and continuous improvement.

#### Data Collection:

Both primary data and secondary data sources of data collection are used.

#### Primary Data:

Primary data is collected with the help of structured questionnaires/Interview.

#### Collection of data from University stakeholders -

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

**Sample Size:** 379 respondents are covered for study which includes university authorities, full time officers, administration and academic associates from select state & deemed universities of Maharashtra.

**Universities selected for Research Study:**

- North Maharashtra University (State University)
- Savitribai Fule Pune University (State University)
- Dr.Babasaheb Ambedkar Marathwada University (State University) and
- Tilak Maharashtra University (Deemed University funded by Government)

**IV. KEY FINDINGS**

**Table 1: Significance of Knowledge Sharing/KM Practices and its benefits to stakeholders of university**

	<b>Benefit factor of Knowledge Sharing/KM Practices to its stakeholders at university</b>	Not significant	Somewhat Significant	Significant	Very Significant	Overall Weighted Score	Percentage
	<b>Weight</b>	0	1	2	3		
1	Ease in collaborative work or projects	0	261	76	42	539	9.06
2	University’s loss of knowledge due to officers’ departure gets protected	0	228	113	38	568	9.55
3	Officers’ undocumented Knowledge gets captured	0	41	292	46	763	12.83
4	Redoing can be saved	0	76	225	78	760	12.78
5	Efforts of MC/Senate/AC/BOS saved by learning from previous experiences which are available in documented form	0	0	36	343	1101	<b>18.51</b>
6	Best practices of one department gets easily followed by others	0	69	227	83	772	<b>12.98</b>
7	Substantial saving in time, cost & efforts due to knowledge sharing	0	0	265	114	872	<b>14.66</b>

8	Acceptance of Innovation among university officers increased	0	227	110	42	573	9.63
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As per as the benefit of Knowledge Management for universities are concerned, the list of benefits according to its significance are as follows –

1. Efforts of MC/Senate/AC/BOS saved by learning from previous experiences which are available in documented form
2. Substantial saving in time, cost & efforts due to knowledge sharing
3. Best practices of one department gets easily followed by others
4. Officers’ undocumented Knowledge gets captured
5. Redoing can be saved
6. Acceptance of Innovation among university officers increased
7. University’s loss of knowledge due to officers’ departure gets protected
8. Ease in collaborative work or projects

**Table 2: Significance of Problems for implementing or using Knowledge Sharing/KM Practices at University**

	<b>Problem Description while using implementing or using Knowledge Sharing/KM at University</b>	Not a Problem	Negligible Problem	Significant Problem	Very Significant Problem	Overall Weighted Score	percentage
	<b>Weight</b>	0	1	2	3		
1	Non availability of fulltime Knowledge Management Officer	33	43	227	76	725	<b>16.35</b>
2	Non availability of formal knowledge management system	77	113	189	0	491	11.07
3	Proper Documentation is missing.	0	36	305	38	760	<b>17.14</b>
4	Knowledge of expert officer gets lost on the day of he leaves	0	115	228	36	679	15.31

	the university						
5	Staff is not expert in using ICT based KM tools	0	76	260	43	725	16.35
6	University officers lacks in mutual trust for sharing knowledge	0	0	83	296	1054	23.77

As per as the problems while implementation or use of Knowledge Management are concerned, the list of problems according to its significance are as follows –

1. University officers lacks in mutual trust for sharing knowledge
2. Proper Documentation is missing
3. Non availability of fulltime Knowledge Management Officer
4. Staff is not expert in using ICT based knowledge management tools
5. Knowledge of expert officer gets lost on the day of he leaves the university
6. Non availability of formal knowledge management system

**Table 3: Recommendation of Knowledge Management Tool for University**

	Recommendation for said KM Tool implementation Knowledge Management Tool for University	Not Recommended	Yes, may be	Yes, MUST	Overall Weighted Score	percentage
	Weight	0	1	2		
1	After Action Reviews (AAR)	0	31	348	727	15.11
2	Communities of Practice(COP)	0	121	258	637	13.24
3	Knowledge Audit	0	275	104	483	10.04
4	Implement Knowledge Plan & Establishing Knowledge Centers	0	75	304	683	14.20
5	Exit Interviews	0	225	154	533	11.08
6	Sharing Best Practices	0	0	379	758	15.76

7	Knowledge Harvesting	40	220	119	458	9.52
8	Peer Assists	0	227	152	531	11.04

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

1. Sharing Best Practices
2. After Action Reviews (AAR)
3. Implement Knowledge Plan [Based on knowledge strategy] & Establishing Knowledge Centers
4. Communities of Practice (COP)
5. Exit Interviews
6. Peer Assists
7. Knowledge Audit
8. Knowledge Harvesting

**V. CONCLUSIONS**

The study has significantly contributed in knowing existing knowledge sharing and knowledge management practices among universities of Maharashtra. The study has reviewed important literature on knowledge management, KM in Universities, Personal Information Management, tools of KM. The important stakeholders of knowledge management system in universities – university fulltime officers, university authorities, university associates in administration and academics are evaluated for important knowledge sharing and knowledge management practices. It has studied key aspects of knowledge management at universities including policies and strategies, leadership, knowledge capture and acquisition, training and mentoring, communication, incentive system, benefits and problems faced according to significance and recommendations for KM tools for implementation at universities.

Mutual trust among university officers for sharing knowledge has to be created. University needs fulltime knowledge management officer. The universities may start with traditional methods of sharing best practices and after action reviews in formal manner and proceed for other ICT based KM tools.

**VI. ACKNOWLEDGMENT**

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