

A Study to Identify the Forces Behind KMS Implementation in Indian B-Schools

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Abstract

Knowledge Management System has considered as a tool of TQM in business sector as well as education sector. Knowledge processes are becoming a vital part for success in organizations. There are various stimuli and forces behind KMS implementation as to increase efficiency by using knowledge to improve overall academic processes, to protect your organization from loss of knowledge due to employee, to encourage employees' participation and innovation in the processes, to improve decision making ability etc. The research paper aims to identify the forces of KMS implementation in B schools and the reasons behind KMS implementation.

Keywords: Knowledge Management, Decision Making, Strategic Advantage, Competitive Advantage, Employee Participation.

Introduction

Knowledge management is a discipline that treats intellectual capital as a managed asset. Knowledge management has been recognized as an essential component of a proactively managed organization. Knowledge management helps an organization to perform self-analysis of its own strengths and weaknesses and act, based on the opportunities thrown at it. Effective solutions are aligned with the organization's business strategy and result in enhanced individual and organizational performance. The objective of the research is to study the level of importance of Knowledge management implementation. The research was undertaken to understand various reasons for which Indian B- Schools would like to adopt KMS so that the organization's strategy could be formulated in an effective manner.

Review of Literature

Over the past few years, academic management was mirroring the innovations, philosophies, strategies, and techniques originating in the business sector. These include benchmarking, total quality management (TQM), and business process reengineering (Bimbaum, R.2000). Knowledge Management System KMS which has its origins in a number of related business improvement areas, such as TQM, business process re-engineering, information systems, and human resource management is the latest technique capturing the attention of managers in the business sector (Metaxiotis, K., Ergazakis & Psarras, K.J., 2005). Various researchers acknowledge that knowledge processes are becoming a pre-requisite for success in organizations (Bhatt, G.D. (2000), Cole, R. (1998), Leonard-Barton. (1998)., Lynn, G. (1998), Nonaka, I. (1994), Porter-Liebskind, J. (1996).]. KMS is generating a lot of interest in the corporate sector and has now emerged as a hot discipline (Goh, A.L.S.,2005). Speaking at the International conference on knowledge management in Kuala Lumpur, in July 2005, the Prime Minister of Malaysia stated that, "People are the most important factor in a knowledge-based economy, a new era which

invariably leads to the subsequent knowledge management paradigm. Knowledge Management becomes increasingly critical and fundamental for survival and self-sustenance (Azizan, 2005). This is supported by the Malaysian Ministry of Human Resources (2011), almost all the universities today focus on how to increase the students' quality and skills through university and industry collaboration. Changing the nature of work increases the need for 21st-century skills preparation.

Out of the 12 components advocated by Jennex and Olfman (2004), the integrated technology infrastructure that creates networks and repositories of structural knowledge may be an important factor to be considered in case of successful implementation of knowledge process in the academic institutions (already suggested by Keong et al. 2001, Davenport et al. 1998 and Barna 2002). Motivation and commitment of users, including incentives and training, may also be considered as another important factor. The fact was proposed earlier by Lorange (1996), arguing that such motivations driven by incentives and training, stimulate the faculty, discipline-based or inter-disciplinary, towards individual and organizational learning. The impact of organizational culture that supports learning, sharing, and use of knowledge (initially advocated by Alavi and Leidner (1999); Sage and Rouse (1999), and others) cannot be ignored for successful KM initiatives in such organizations. It may be argued that a KM culture can only be created through a positive attitude of the top management towards support for resource allocation, democratic leadership, and adequate training facilities (already mentioned by Holsapple and Joshi 2000 and Barna 2002).

Management institutions in India are always challenged to stay relevant both in terms of education and research. Management institutions generate information about students, courses, faculty, and staff that includes managerial systems, organizational personnel, lectures details, quality research, and so on. This useful information which serves as a strategic input is very useful to any management institution for improving the quality of the education process. Research shows that many information technology implementations in educational institutions fail not because of technology but because insufficient attention is paid to issues related to the institution's culture (Levine, 2001; Friedman and Hoffman, 2001). Often there are several useful experiences and studies (let us define this as knowledge) that have come across in evaluations, courses, students' counseling, and admissions. This knowledge would enhance data sharing, analyze diversified student relationship management, increase the success of student performances and programs, etc. KM applies systematic approaches to find, understand, and use knowledge to create value (Probst, Raub, and Romhardt, 2000; O'Leary, 1998; Mikulecký and Mikulecká, 1999).

Objectives

The main aim of this research is to study the level of importance of KMS implementation in Indian B-Schools.

Research Methodology

Population: IT faculty members/ IT heads in B-schools

Sampling Technique: Stratified Sampling

Sample Size: 50 B-schools in India. The data is collected from 4 states of India covering colleges from tier 1, tier 2, and tier 3.

Data collection Method: Primary Data were collected through a structured questionnaire and Interviews. Secondary data was collected through research literature review, books, research journals, processes, procedures, forms, formats available with the Institutes.

Data Analysis: To analyze the responses factor analysis was done. The KMO and principal component test was carried out. To study the level of importance of KMS implementation by the Indian B-Schools, mentioned parameters below were designed to collect and analyze the responses. Respondents were asked to rate the parameters on a 5-point scale: where 1 for very important, 2 for important, 3 for Can't say, 4 for not important, and 5 for not at all important.

Parameters:

1. To improve the competitive advantage of your organization
2. To help integrate knowledge within your firm or organization
3. To improve the capture and use of knowledge from sources outside your organization
4. To improve sharing or transferring of knowledge within the organization and with the stakeholders
5. To increase efficiency by using knowledge to improve overall academic processes
6. To protect your organization from loss of knowledge due to employee departure

(Person oriented/system-oriented)

7. To train employees to meet strategic objectives of your organization
8. To encourage employees' participation and innovation in the processes
9. To achieve the vision and mission of the organization
10. To ease collaborative work of projects /assignments or teams that are physically separated
11. To promote sharing and transferring of knowledge with stakeholders
12. To improve decision-making ability

To analyse the responses gathered from the respondents, factor analysis was done. The KMO and Principal Component test was carried out. Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors.

Result and Discussion

To understand the influential parameters out of the mentioned parameters, factor analysis was performed on the data. The results are given in Table – 01, Table-02, Table- 03, Table -04, Table-05, and Table-06. KMO test shows a significance level of less than 0.05, therefore it shows that the data was suitable for factor analysis. The result clearly indicates that there were three main factors/components which were important for implementing KMS in the organization

Component One: Improvement in Competitive Advantage:

1. To improve the competitive advantage of your organization
2. To increase efficiency by using knowledge to improve overall academic processes
3. To ease collaborative work of projects /assignments or staff that are physically separated

Organizations had different objectives for KMS implementation, on priority most of the organizations responded that they wanted to implement KMS at their organization to improve

competitive advantage as nowadays b-Schools are facing cutthroat competition due to an increase in the number of management institute in India. Every B-school is coming up with extra offerings and innovative practices in the teaching-learning process. Organizations were also aiming at KMS from the point of overall improvement in academic processes. Institutes were looking forward to a solution for collaborative associations with other educational and research institutes, employers, and physically remote staff. The main objective behind it was to reduce delays in overall processes.

Component Two: Improvement in Decision Making Process through Knowledge Capture and Integration:

1. To help in integrating knowledge within your firm or organization
2. To improve the capturing methods and use of knowledge from sources outside your organization
3. To improve decision-making ability

Institutes were facing difficulties in decision-making at strategic, tactic, and operational level management due to improper data capture and integration methods. It was leading to data insufficiency and data inconsistency. The results of questions number two and three clearly show that organizations were lacking ineffective data capturing, data storage, and data dissemination tools and techniques.

Component Three: Employee Participation and Collaborative Work:

1. To improve sharing or transferring of knowledge within the organization and with the stakeholders
2. To protect your organization from loss of knowledge due to employee departure
(Person oriented/system-oriented)
3. To encourage employee's participation and innovation in the processes
4. To ease collaborative work of projects /assignments or teams that are physically separated

The main objective of B-schools behind KMS implementation in India was to adapt global perspective in an academic environment. To achieve this objective, it was very necessary for B-schools to collaborate with other research institutions, international libraries, management schools at international levels, corporate for projects and placements.

B-Schools were also looking for a solution for knowledge loss which was occurring due to employee turnover. According to the B-schools, that could be achieved by encouraging employees' participation in designing and implementation of innovative processes. According to the B-Schools, it would also increase the system thinking amongst the staff.

Conclusion

The study shows that the business schools find that KMS implementation is important for them for the following reasons:

- Improvement in Competitive Advantage
- Improvement in the decision-making process through knowledge capture and integration.
- Employee participation and collaborative work

Business schools are inclined to implement KMS for the improvement in the competitive advantage and to monitor and streamline the academic process. They also consider KMS as a tool to integrate knowledge within the organization that is otherwise scattered and not updated in a structured way. According to the business schools, KMS would certainly increase the decision-making ability of employees and management. KMS would also be useful to transfer and share knowledge with and external stakeholders. According to business schools, KMS is useful to encourage employee participation, improve innovative thinking, and increase collaborative work which would lead an organization to become a learning organization.

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Table-01 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.524
Bartlett's Test of Sphericity	Approx. Chi-Square	68.900
	df	45
	Sig.	.012

Table-02 Communalities

Communalities		
	Initial	Extraction
To improve the competitive advantage of your organization	1.000	.640
To help integrate knowledge within your firm or organization	1.000	.527
To improve the capture and use of knowledge from sources outside your organization	1.000	.504
To improve sharing or transferring of knowledge within organization and with the stakeholders	1.000	.399
To protect your organization from loss of knowledge due to employee departure(Person oriented/system oriented)	1.000	.475
To train employee to meet strategic objectives of your organization	1.000	.603
To encourage employees participation and innovation in the processes	1.000	.590
To ease collaborative work of projects /assignments or teams that are physically separated	1.000	.564
To promote sharing and transferring of knowledge with stakeholders	1.000	.484
To improve decision making ability	1.000	.477

Extraction Method: Principal Component Analysis.

Table-03 Total Variance, for Question No. 12

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	1.926	19.264	19.264	1.926	19.264	19.264	1.753
2	1.807	18.070	37.334	1.807	18.070	37.334	1.771
3	1.529	15.287	52.621	1.529	15.287	52.621	1.763
4	1.125	11.246	63.867				
5	.921	9.207	73.074				
6	.746	7.456	80.530				
7	.578	5.785	86.315				
8	.555	5.546	91.862				
9	.456	4.563	96.424				
10	.358	3.576	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

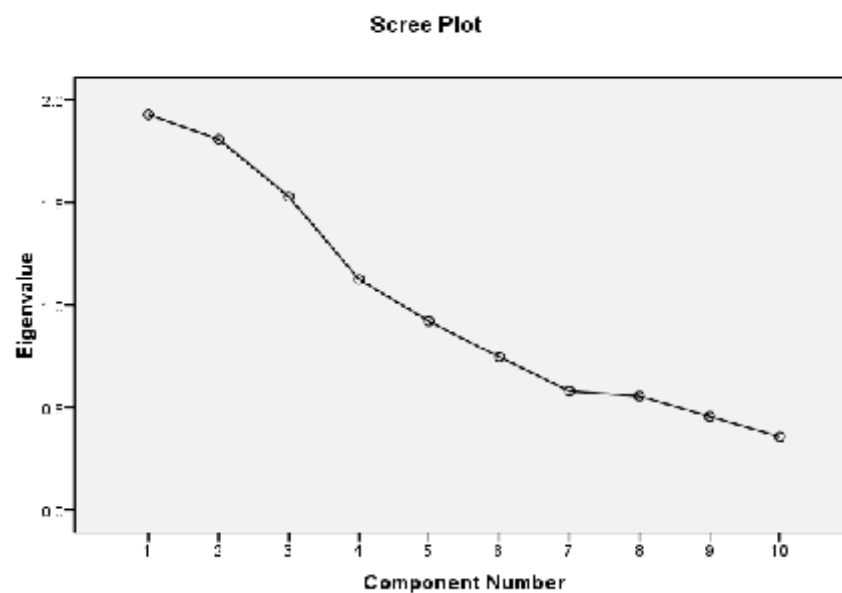
Table-04 Scree Plot, for Question No. 12

Table- 05 Component Matrix, for Question No. 12

Component Matrix^a

	Component		
	1	2	3
To train employee to meet strategic objectives of your organization	.760		
To ease collaborative work of projects /assignments or teams that are physically separated	.565	-.393	
To improve the competitive advantage of your organization	.364	-.626	-.341
To improve the capture and use of knowledge from sources outside your organization		.615	.310
To improve decision making ability		.595	
To help integrate knowledge within your firm or organization	.414	.476	-.359
To protect your organization from loss of knowledge due to employee departure(Person oriented/system oriented)	-.370	-.416	.406
To encourage employees participation and innovation in the processes	.391		.624
To improve sharing or transferring of knowledge within organization and with the stakeholders	-.346		.524
To promote sharing and transferring of knowledge with stakeholders	.454		.475

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Table-06 Component Score Coefficient Matrix, for Question No. 12

Component Score Coefficient Matrix

	Component		
	1	2	3
To improve the competitive advantage of your organization	.021	-.444	-.078
To help integrate knowledge within your firm or organization	-.014	.076	-.406
To improve the capture and use of knowledge from sources outside your organization	.175	.354	-.110
To improve sharing or transferring of knowledge within organization and with the stakeholders	.095	.154	.334
To protect your organization from loss of knowledge due to employee departure(Person oriented/system oriented)	.049	-.042	.392
To train employee to meet strategic objectives of your organization	.277	-.040	-.308
To encourage employees participation and innovation in the processes	.430	.003	.166
To ease collaborative work of projects /assignments or teams that are physically separated	.365	-.192	.033
To promote sharing and transferring of knowledge with stakeholders	.372	.170	-.034
To improve decision making ability	-.046	.382	.009

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.