



## Expectations of Indian B-Schools from Knowledge Management Systems

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### ABSTRACT

Knowledge is increasingly being recognized as the new strategic imperative of organizations. The most established paradigm is that knowledge is power. Therefore, one has to hoard it, keep it to oneself to maintain an advantage. The common attitude of most people is to hold on to one's

Knowledge since it is what makes him or her an asset to the organization. Now a days B-Schools are facing many difficulties in their decision making process in absence of proper use of information technology. This research was undertaken to study the difficulties faced by the B-schools and their expectations from Knowledge Management System (KMS).

### KEYWORDS

Knowledge, decision making, innovation, knowledge sharing, organizational memory, training and mentoring

### Introduction:

Business education market in India is about Rs.116 billion in 2014 (campus and distance education together) and growing at a rate of 14% CAGR in last 3 years. Currently 3644 business schools producing over 200000 management graduates every year is not enough to meet the growing demand for management education in India. As a result, opportunities in management education in India are immense. Hence, business education in today's environment plays a significant role and should prepare the students to face the challenges boldly.

Business education in India is poised at a very promising growth chart and in the next decade, Indian professional education will become globally competitive and sought after with students and faculty from across the world opting for courses in India. Another development envisaged is the global accreditation of India's premier business schools

With the set of high quality infrastructure, qualified teachers, efficient placement and training officers, eminent guest visiting lecturers, well equipped computer labs and libraries, B-Schools are still experiencing some gaps in their day to working and lacking in acquiring good information and ultimately end up in poor decision making which causes low results against expectations.

### Problems faced by the B-schools in India :

- Lack of data repository of internal activities (Academic and Non academic)
- Poor coordination among sub system of the institute.
- Improper data capture techniques for Industry- Institution interaction
- Lack of documentation awareness and facilities
- Low motivation and resistance for change for new initiatives.
- Less interfaces with external environment( Academic and non academic)
- In most of the Placement activity considered as a separate entity and not aligned with academic.
- Processes are not properly defined, monitored and revised.
- Disinterest in technology up gradation.
- Improper Organization structure
- Poor decision making due to lack of data.

The growing imperative of social relevance and accountability has in the last three decades put the international Higher Education sector under considerable pressure to fill the gap between higher education and society by shifting from disciplinary research to applied or problem-solving research (Waghid, 2002). This dimension of institutional change in

universities is described by Kraak (2000,) as a 'shifting away from its traditional liberal formulations as a "house of knowledge" – detached from the larger society to pursue science unhindered by the narrow interests of government and business – towards a conception of university in service of the market, where intellectual labour has become commercialized, serving primarily the innovation demands of the new global economy'. According to Le Grange (2005), this phenomenon, driven by globalization and the democratization of access to (higher) education, is generally explained in terms of renewing insight into the work of Michael Gibbons (1994) and that of Peter Scott (1995). Their theoretical intervention poses the argument that there is a shift from knowledge production, to pure, disciplinary, homogeneous, expert-led, supply-driven hierarchical peer reviews and indeed exclusively university-based knowledge. refers to applied, problem-solving, trans-disciplinary, heterogeneous, hybrid, question- driven, entrepreneurial, network-embedded knowledge. Underlying this dichotomy is the reproduction of the assumption that knowledge production is the exclusive domain of the higher education academic. In the midst of the increasing consideration of problems in the community and the response to needs or demands, these aspects are dealt with in the knowledge construction process in a manner which suits the academic (or higher education institution). Knowledge production, presentation or application takes place in a context in which power over the process is still seated in the academic institution and not in the university community that it serves.

There are several studies conducted on KM principles and strategies towards organizational learning (Ron Sanchez 2005). High quality research work is done on knowledge management in higher education (Yaying Mary Chou Yeh 2005). But few studies are devoted to institutional learning using KM practices (Christine van Winkelen and Jane McKenzie 2007). It can enhance the performance of any educational institute. According to (Mohd Ghazali Mohayidin, Nor Azirawani, Man Norfaryanti Kamaruddin and Mar Idawati Margono, 2007).

Firstly, collecting data regarding employees' perception of KM is necessary preparation for any KM practice. In the KM framework according to Wiig (1999), the initial step of a KM project should be "Survey and map the knowledge landscape". However, some researchers focus on the measurement of an organization's deposit of knowledge and the characteristics of that knowledge (tacit/explicit) (Boisot, MacMillan, & Han, 2007). They tend to ignore the employees' opinion on the way to implementing KM. This, in many cases, will cause the failure of a KM project (McCampbell, Clare, & Gitters, 1999). Knowing teachers' perceptions and opinions about KM

factors is therefore an important precondition for the success of a KM project in schools. In this study, interviews to collect and understand teacher's perception of KM implementation were conducted.

Secondly, this study continued the previous study (Chu et al., 2009) of investigating teacher's perception of KM using a survey instrument developed by Rodrigues and Pai (2005). The result showed that "Leadership", "Interpersonal Trust", and "Management Trust" were regarded as the three most important factors of KM implementation. The aim of this study is to further examine teacher's perception of implementing KM in depth.

Thirdly, although KM technology is now mature enough to be applied in practice across sectors, the integration of KM and education administration is still a newborn phenomenon. Most KM researchers do not have a background in education and they always neglect the gap between KM and KM in schools. It is claimed that a KM project in a school needs knowledge and suggestions from the teachers, who are experts in education and pedagogy. Through this study, we want to explore teachers' perception of KM in schools in terms of KM implementation.

Higher Education institutions face many challenges in a rapidly changing global economy (Birgeneau, 2005). As we enter the 21st century, Birgeneau (2005) contends that Higher Education institutions face a world that is more interconnected, one in which knowledge, creativity, and innovation are the essential elements of thriving societies. Bloch (in Duderstadt, 2005) supports this by stating that "Education sector are entering a new age, an age of knowledge in which the key strategic resource necessary for prosperity has become knowledge itself – educated people and their ideas". Higher Education institutions today and in the near future, will experience different and intensified external pressure influenced by globalization, and the past few decades have witnessed the pressure on HEIs to respond to this global integration (Bloom, 2005). Globalization refers to the process whereby countries become more and more integrated, mainly via movements of goods, capital, labour and ideas (Scott, 2005:22). Scott (2005) highlights two main attributes of what he terms the 21st century globalization: 1) Acceleration of trends associated with a 'knowledge society'. Some of these trends include the rise of information and communication technologies, which has been accompanied by a cultural revolution. 2) The process of acceleration and innovation has brought about 'uncertainty' about individual identity, about social affinities, about gender roles and about jobs and careers.

A knowledge management approach is the conscious integration of people, processes and technology involved in designing, capturing and implementing the intellectual infrastructure of an organization (Petrides 2004). It enables the people within an organization to share what they know, leading to improved services and outcomes. KM plays an important role in the improvement of organizational competitive advantage through sharing of best practices, achieving better decision making, and 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 HEIs achieve all or even most of these benefits. The apparent failure in KM initiatives is primarily caused of lack of sharing culture, lack of awareness of the benefits of KM and a failure to integrate KM into everyday working practices. The voluminous growth in the number of higher educational institutions (HEIs) in India in the last decade has stressed the institutions with the extreme pressures of competition and the need to perform better. HEIs consist of a number of academic and administrative processes that pro-

duce knowledge during their activities. The question is what value is added to the products and services they deliver by the effective use of this knowledge asset (Milam, John, 2001). The HEIs 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.

#### **Objectives:**

- To study the challenges faced by the B-Schools in implementing IT practices.
- To study the expectations of Indian B-Schools from the Knowledge Management system, if implemented in the Institute.

#### **Research Method :**

##### **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, tier2 and tier 3 .

##### **Data collection Method:**

Primary Data was 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.

To analyze the responses factor analysis was done . The KMO and Principle 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.

##### **Difficulties Faced By B-Schools :**

To study what types of difficulties B-schools face in their operational and strategic decision making process, following parameters were designed to collect and analyze the responses. Respondents were asked to rate the parameters on 5 point scale (1- being not at all and 5- being To the great Extent)

##### **Parameters :**

- Insufficient data/information available
- Insufficient access methods
- Improper communication mode
- Improper information capturing and storage mode
- Insufficient resource for data sharing
- Data integration as no common platform
- Data is obsolete
- Training not provided on the current system
- Lack of proper training on data usage and sharing
- Lacking Top Management support
- Lack of training on current IT practices

##### **Discussion:**

- To understand the influential parameters out of the mentioned parameters, factor analysis is performed on the data. The results are given in the Table – 1, Table-2, Table-

3 and Figure- 1. KMO test shows the significance level of less than 0.05, therefore it shows that the data is suitable for factor analysis.

The result clearly indicates that there are two main factors which can be the cause of difficulties in decision making process at operational and strategic level. (Table-3 and Figure-1)

Insufficient data/information available, Insufficient access methods, Improper communication mode, Improper information capturing and storage mode, Insufficient resource for data sharing, Data integration as no common platform, Data is obsolete, Training not provided on the current system, Lack of proper training on data usage and sharing are grouped into first component: Inadequacy of IT infrastructure in terms of information storage, sharing and training .

**Findings & Interpretation:**

- It was found that only 7 B-Schools have centralized data storage facility. 43 B-School are storing their data on a non centralized manner.
- Out of these 43 B-schools, only 22 Institutes have storage facility based on semi structured methods. Remaining 21 Institute don't have any specific data storage plan and methodology.
- 30 B-Schools have special libraries created for storing intra institute data like PPTs, online journals, scanned documents library, data about students and companies etc.
- Almost all the colleges are storing data at the departmental level in MS- Excel, Tally, Scanned and in in house developed software.
- Out of 50 colleges 4 colleges are using ERP system for all the functionalities, wherein 6 colleges are under ERP implementation.
- Out of 50 B-schools 3 B-Schools have well defined and standardized communication policy in place. Remaining 47 colleges are working on ad-hoc IT communication and up gradation policies which are inconsistent and changes are very frequent.
- Out of 50 Institutes 36 Institutes have well established communication media ( Only for Internal communication not for external communication) 14 Institutes are not using latest communication media internally as well for external communication use.
- In 41 B-schools regular database updates and communication media updates are carried out. These updates are mainly based on the software version updates and adding communication and storage media in the existing one.
- Only 5 B-schools have the policy of IT usage record maintenance in place.
- All the respondents replied that an organization should share monetary as well as non monetary incentives with its employees . Implementation of KMS in the organization comprises of high level responsibility, accountability , coordination and innovation in functionality. Rewards and incentives would motivate them in working on a new system.

Lacking Top Management support, Lack of training on current IT practices are grouped in second component : **Lack of strategic planning**

**Findings & Interpretations :**

When asked about the current training practices prevailing in the institute regarding IT practices, the respondents said that to some extent training is given about the current software which is already in use and new IT practice introduced. For example, training on research related software like SPSS, MS-Excel, online exam software, use of ERP etc.

Majority of B-Schools responded that there is no mentoring facilities provided by the Institute for IT practices. Most of the B-Schools were not aware about the concept of mentoring .

When asked whether formal training is required for the employees on a regular basis to implement IT practices, 25 re-

spondents replied that training programmes are required to a great extent.

43 colleges said that implementing knowledge management practices in the organization totally lies with the Top level management. According to the respondents top level management should include implementation of Knowledge management practices in the vision and mission statement. They also responded that Knowledge management system implementation is a costly affair , therefore it comes under the purview top level management .

40% respondents said that they might face resistance from the top level management.

**Table: 1**

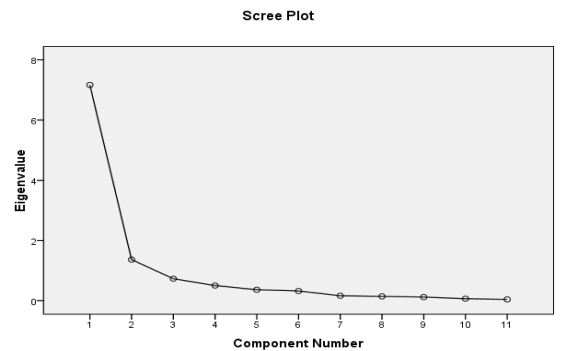
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.836
Bartlett's Test of Sphericity	Approx. Chi-Square	492.652
	df	55
	Sig.	.000

**Table: 2**

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.164	65.131	65.131	7.164	65.131	65.131	6.678	60.710	60.710
2	1.384	12.404	77.536	1.384	12.404	77.536	1.851	16.826	77.536
3	.731	6.647	84.183						
4	.505	4.591	88.774						
5	.385	3.314	92.088						
6	.324	2.947	95.035						
7	.185	1.504	96.539						
8	.146	1.323	97.862						
9	.122	1.110	98.972						
10	.088	.822	99.594						
11	.045	.406	100.000						

Extraction Method: Principal Component Analysis.

**Figure:1**



**Table: 3**

	Rotated Component Matrix <sup>a</sup>	
	Component 1	Component 2
Insufficient data/information available	.850	
Insufficient access methods	.866	
Improper communication mode	.855	
Improper information capturing and storage mode	.885	
Insufficient resource for data sharing	.867	
Data integration as no common platform	.822	
Data is obsolete	.906	
Training not provided on the current system	.820	
Lack of proper training on data usage and sharing	.809	
Lacking Top Management support	.336	.824
Lack of training on current IT practices		.925

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 3 iterations.

**Expectation of B-Schools From Knowledge Management System:**

To study the expectations about the KMS, from B-schools following parameters were identified for data collection and analysis:

- Should Increase our knowledge sharing horizontally ( Across departments, functions or business units)
- Should increase our knowledge sharing Vertically ( Up the organization hierarchy )
- Should Improve employee efficiency
- Should Improve skills and knowledge of employees
- Should increase decision making ability
- Should Improve internal( with in departments) as well as external relationship( Stakeholders)
- Should Increase intake of the students
- Should Help us in new course design / academic content design/ process design
- Should Help us in our service delivery
- Should Increase flexibility in services and innovation
- Should Prevent duplication of work
- Should Improve our organizational memory
- Should Increase our ability to capture knowledge from outside institutions including other universities and research organizations.
- Should Improve involvement employees in the workplace activities
- Should Improve performance of the students in their academic and nonacademic activities

**Discussion:**

To understand the influential parameters out of the mentioned parameters, factor analysis is performed on the data. The results are given in the Table – 4, Table-5 , Table- 6 and Figure- 2.

KMO test shows the significance level of less than 0.05, therefore it shows that the data is suitable for factor analysis.

The result clearly indicates that there are four main components which can be considered as major factors which are responsible for the results about the expectations of B-Schools from Knowledge Management System . (Table-6 and Figure-2)

**First Component: Employee Efficiency improvement**

Should Improve employee efficiency, Should increase decision making ability, Should Improve internal (with in departments) as well as external relationship (Stakeholders), Should Help us in our service delivery, Should Improve our organizational memory

**Interpretation:**

Currently majority of B-schools are facing problems related to information sharing and communication methods (internally as well as externally) B-Schools don't have any specific system for acquiring knowledge from outside sources. When asked about the expectations from KMS, respondents said that on priority they want a system which will improve the efficiency of staff for acquiring, identifying, storing and communicating knowledge/information required for their day today working .

**Second Component: Information sharing**

*Should Increase our knowledge sharing horizontally (Across departments, functions or business units), Should increase our knowledge sharing Vertically (Up the organization hierarchy), Should Improve skills and knowledge of employees.*

**Interpretation:**

Respondents said that because of improper organizational structure and lack of formal communication policies, currently it is very difficult to share knowledge within and outside the organization. Many a places staff face problems like data overlapping, inconsistent data or obsolete date. B-School expect that KMS should provide them a structure of formal com-

munication vertically as well as horizontally.

**Third Component: Performance improvement**

*Should increase intake of students, Should Prevent duplication of work, Should Increase our ability to capture knowledge from outside institutions including other universities and research organizations, Should Improve performance of the students in their academic and nonacademic activities*

**Interpretation:**

B-Schools expect that KMS should help in getting more students' intake . This response was given on two grounds, first, KMS will improve the communication with the stakeholders and therefore B-Schools will develop better visibility and reputation in the market and secondly, because of KMS implementation the quality of existing students' will be improved academically, in extra-curricular activities and in placements. It will increase chances of getting new admissions for the next years.

**Fourth Component: Innovation in services**

*Should help us in new course design / academic content design/ process design, Should increase flexibility in services and innovation, Should improve involvement employees in the workplace activities*

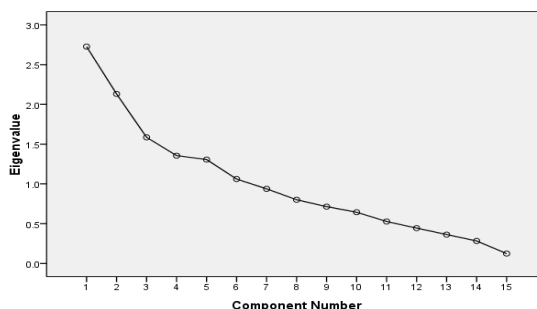
**Interpretation:**

Majority of B-Schools wanted to establish collaborative associations with other universities, colleges, libraries to improve their course design, pedagogy, organizational memory etc. B-Schools expect that KMS should provide a global perspective to management education by providing a global platform. B-Schools are also looking for innovative practices at their workplace so that the overall performance would be elevated.

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.526
Bartlett's Test of Sphericity	Approx. Chi-Square	174.510
	df	105
	Sig.	.000

**Scree Plot**



**Table: 5**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.727	18.180	18.180	2.727	18.180	18.180	2.284	15.295	15.295
2	2.132	14.210	32.390	2.132	14.210	32.390	2.213	14.755	30.050
3	1.586	10.571	42.961	1.586	10.571	42.961	1.711	11.404	41.454
4	1.355	9.034	51.995	1.355	9.034	51.995	1.581	10.541	51.995
5	1.306	8.706	60.702						
6	1.081	7.073	67.775						
7	.937	6.250	74.025						
8	.800	5.337	79.361						
9	.714	4.761	84.122						
10	.643	4.287	88.410						
11	.527	3.515	91.925						
12	.444	2.959	94.884						
13	.362	2.415	97.299						
14	.292	1.881	99.180						
15	.122	.830	100.000						

Extraction Method: Principal Component Analysis.

**Table: 6**

**Rotated Component Matrix<sup>a</sup>**

	Component			
	1	2	3	4
Will increase our knowledge sharing horizontally ( Across departments, functions or business units)		.882		
Will increase our knowledge sharing Vertically ( Up the organization hierarchy )		.834		
Will Improve employee efficiency	-.642			
Will Improve skills and knowledge of employees		.308		
Will increase decision making ability	.691			
Will Improve internal( with in departments) as well as external relationship( Stakeholders)	.510	.453		
Will Increase intake of the students			.792	
Will Help us in new course design / academic content design/ process design			.341	.583
Will Help us in our service delivery	.676			
Will Increase flexibility in services and innovation	.340			.612
Will Prevent duplication of work			-.412	
Will Improve our organizational memory	.556		-.363	.382
Will Increase our ability to capture knowledge from outside institutions including other universities and research organizations.		.350	.353	
Will Improve involvement employees in the workplace activities				.627
Will Improve performance of the students in their academic and non academic activities			.639	

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 8 iterations.

**Conclusion:**

B-Schools are facing many challenges regarding knowledge identification, storage, communication and training facilities available for use of technology. B-Schools are expecting a reform in their tactic and operational level working environment. They expect that KMS should provide them a platform which will help them in decision making.

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