

Knowledge Management Practices: Issues and Challenges

(With special reference to Chhattisgarh Academic Institutions)

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ABSTRACT

Knowledge management is about enhancing organizational effectiveness through creating environment among colleagues to share, develop and create new methods of skills in an organization. We are concerned with knowledge management because we believe it can contribute to our institutional vitality and success. Efforts to measure intellectual capital and to assess the effectiveness of knowledge management applications should help us understand the extent to which we are managing knowledge. This paper is based on an experimental approach about the Knowledge Management practices performed in the higher educational institutions in Chhattisgarh with respect to the Knowledge support needs etc. The survey also found that most organisations did not have an explicit knowledge management strategy or if they did, the majority of employees were not aware of it. A considerable percentage of respondents believed that their organization's structure and their Chairman/Director/Principal/CEO encouraged knowledge sharing. Knowledge sharing activities seemed to be frequently assessed in individual performance evaluations. Best practice identification and transfer were identified as useful practices, but a large number of employees were neutral that it occurred in their organisation.

Age and gender based analysis also produced some interesting results.

Although certain knowledge sources, for example co-location, meetings, email, printed publications, training materials and mentors proved to be important for knowledge seekers in small businesses. Other knowledge sources, including electronic discussion groups, knowledge maps, instant messaging, knowledge resources and web pages were deemed to be less useful due to non availabilities of facilities.

This research finds that Knowledge creation is a dynamic processes that occurs at individual, organizational and societal level and is linked to organizations actions and goals that support its survival.

Key words: Knowledge Management, Knowledge Hub, strategy, intellectual assets

INTRODUCTION

Knowledge management involves any systematic activity related to the capture and sharing of knowledge by the organisation. We can define knowledge management as the discipline that promotes an integrated approach to identifying, capturing, retrieving, sharing and evaluating an enterprise's information assets. Knowledge management is a viable means in which academic institutions could improve their services in the knowledge economy. This can be achieved through creating an organisational

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of knowledge is internalized by the organization; the other is internalized by individuals (Bhatt, 2002). Organisations, including academic institutions can create and leverage its knowledge base through initiation of appropriate knowledge management practices. TFPL (1999) argued that "for organisations to compete effectively in the knowledge economy they need to change their values and establish a new focus on creating and using intellectual assets". The success of academic institutions depends on their ability to utilize information and knowledge of its staff to better serve the needs of the academic community. Lee (2000) pointed out that the knowledge and experiences of the academic staff are the intellectual assets of any educational institution and should be valued and shared.

Primary and secondary research were conducted to determine how academicians in knowledge-intensive businesses source and seek knowledge and what organizational support systems are available. This article aims to give an overview of knowledge management and its role in academic institutions.

KNOWLEDGE MANAGEMENT: an overview

In an era where competitive advantage is perceived to be linked to knowledge, considerable interest in knowledge management continues to be the trend. Given the broad scope and interdisciplinary nature of KM, this interest spans traditional functional and professional boundaries ranging from IT professionals, to accountants, marketers, organisational development and change management professionals.

Formalizing knowledge management activities in an organisation may help create consistency of methods and the transfer of best practices. Furthermore, knowledge should add value to the organisation as well as being an important dimension. However, most organisations operate in environments that they cannot control. It is because of the changes and challenges that organisations are faced with in the global knowledge economy. Knowledge management is a viable means in which organisations could improve their performance in the global economy. The success of organisations is subject to both internal and external forces that they must operate in order to survive.

Knowledge management as it is evolved in the business sector is slowly gaining acceptance in the academic sector. Oosterlink and Leuven (2002) pointed out that, "in our era of knowledge society and a knowledge economy, it is clear that academic institutions have a major role to play". In other words, academic institutions are faced with a challenge to create and disseminate knowledge to society. However, Reid (2000) argued "traditionally, academic institutions have been the sites of knowledge production, storage, dissemination and authorization". Similarly, Ratcliffe-Martin, Coakes and Sugden (2000) articulated that academic institutions traditionally focus on the acquisition of knowledge and learning. As organisations (recognised to be in the knowledge business), universities and other higher education institutions face similar challenges that many other non-profit and for-profit organisations face (Rowley, 2000; Petrides & Nodine, 2003). Among these challenges are financial pressures, increasing public scrutiny and accountability, rapidly evolving technologies, changing staff roles, diverse staff and student demographics, competing values and a rapidly changing world (Naidoo, 2002). Academic institutions seek to share information and knowledge among the academic community within the institution. Knowledge management has become a key issue in academic institutions due to changes in knowledge culture. Oosterlink and Leuven (2002) argued that academic institutions are no longer living in splendid isolation. They have their own place in society, and they have a responsibility to society, which expects something in return for privileges it has granted. In other words, academic institutions do not exist as single entities. They are part of society through engaging in teaching, research and community service. Therefore, the knowledge created in academic institutions through research and teaching should be relevant to the labor market. It may be noted that the academic institutions is concerned with the conservation of knowledge and ideas, teaching, research, publication, extension and services and interpretation (Budd, 1998; Ratcliffe-Martin, Coakes & Sugden, 2000). As a result, promoting knowledge should be the major focus of higher education institutions.

Research Methodology

The study is based on the descriptive research design utilizing the Questionnaire. Potential participants for

the study comprised of all academicians across various higher education institutions for example the Deans, Professors, Readers of engineering and management colleges. The questionnaire was sent to 123 respondents. In all, 100 completed questionnaires were returned. This represents a response rate of about 81.3 %. In order to obtain in-depth information about the current knowledge management practices in the colleges, the Deans, Directors, Principles and the senior faculties were selected as a respondents. These people were selected because of their key role and function in the educational institutions. Initial contact was made with each of the potential respondents. The data were analyzed by using graphical method.

SURVEY DESIGNS, DATA & RESULTS

The survey design, data and results are divided into three sections:

- A. General Observations
- B. Knowledge Sourcing Practices and Outcomes
- C. Organizational Support for Knowledge Sharing

General Observations

As a part of the effort to characterize the state of KM practice amongst our respondents, we assessed a variety of aspects of their work context, attitudes, and learning outcomes. Table 1 summarizes our results in this area. The results for this group of questions are given in *Figure 1*. In general, respondents reported generally moderately high levels of knowledge support needs – that is to say, these respondents were in occupations that required at least a moderate level of access to knowledge in order to perform well. These respondents also made good use of knowledge sourcing methods to locate and access the knowledge they needed. However, they reported that only a small portion of this knowledge was sourced via group interactions and the balance through one-on-one interactions and via published materials. Interestingly, of the three kinds of learning outcomes possible (transfer of best practices, adaptation to changing work environments, and innovative new ideas), these respondents reported much higher levels of adaptation and innovation than replication, suggesting that the transfer of best practices is not very well developed in these organizations.

Table-1 General Observations

Knowledge Management Parameters	Questions asked by using the questionnaire	Sample Size	Respond
Knowledge support needs	Is the importance of having access to and utilizing knowledge sources	100	90% Agreed 10% Not agreed
Group interactivity	How often do you rely on group interactions to gain knowledge related to your work?		70% Annually 10% Monthly 10% Weekly 10% Daily
Knowledge sourcing methods	How often do you approach other employees for help with work related issues?		50% At any time 30% Daily 10% Weekly
Behavioral: (innovation)	Have you made any major improvements or innovative changes to the way you work?		60% Agreed 50% Not Agreed 10% In the process
Learning	How much more do you know about your work at the time of this survey than at the same time of the previous year?		40% More 40% Less 20% As usual
Performance	To what extent you have improved your performance in the past years?		80% Increased Performance 20% Maintains the same level

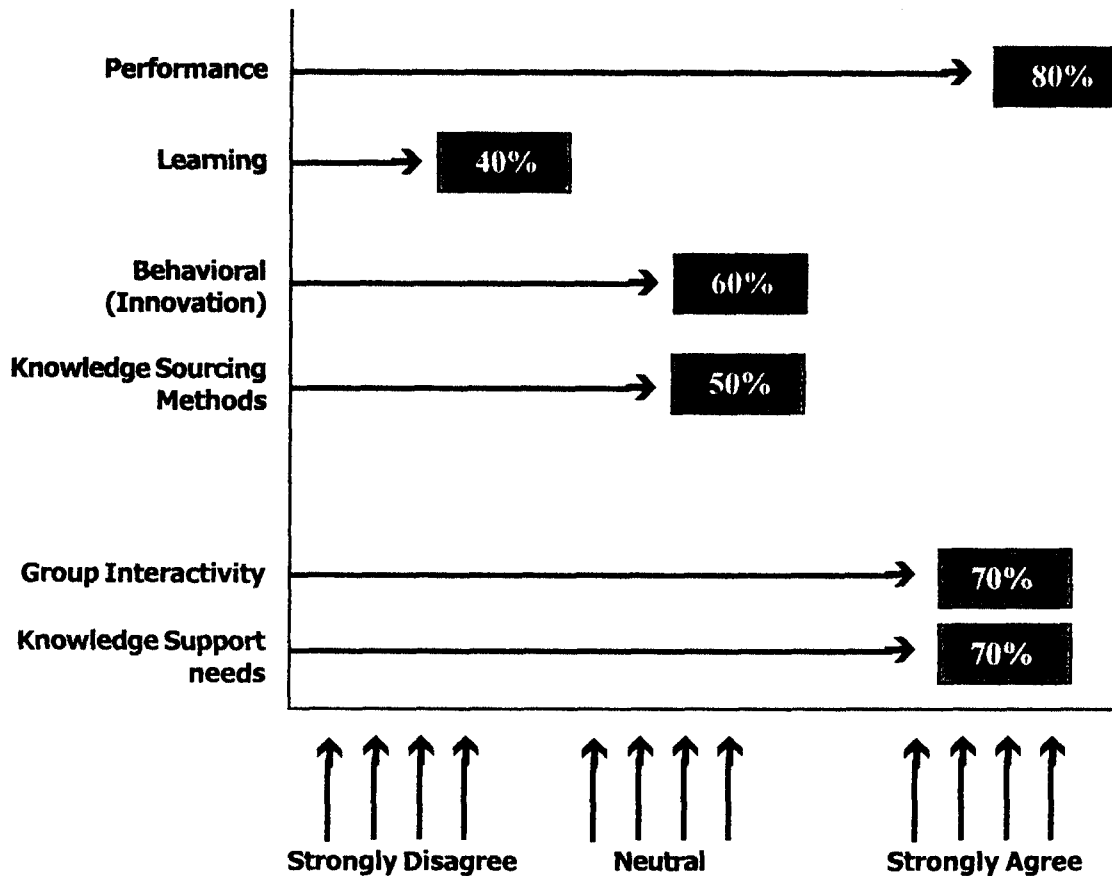


Fig-1 General observations

B. Knowledge Sourcing Practices and Outcomes

Some of the data collected was intended to enable comparison across different knowledge sourcing practices as summarized in Table 2: Question sets 7 to 16 were posed. For each question, a rating was required in yes or no. The results for this group of questions are given in *Figure 2*. The knowledge

sourcing practices most prominent in this sample included traditional non technology means: talking to co-located colleagues, attending meetings and to a lesser extent relying on training materials and mentors. Interestingly, a single technology-based practice was heavily utilized – employees felt that electronic mail was quite an important knowledge-sourcing tool.

Table-2 Knowledge Sourcing Practices and Outcomes

Knowledge Management Parameters	Questions asked by using the questionnaire	Respond
Co-location	Are workers located in close physical proximity?	60% Agreed 40% Disagreed
Meetings	Do you participate in meetings?	90% Agreed 10% Disagreed
Electronic discussion groups	Do you use electronic discussion groups?	60% Agreed 40% Disagreed
Knowledge Maps	Do you use searchable indexes of experts?	90% Agreed 10% Disagreed
Email	Do you use electronic mail to communicate with other employees?	90% Agreed 10% Disagreed
Instant messaging ⁸	Do you use instant messaging programs to interact with other employees?	80% Agreed 20% Disagreed
Knowledge resources	Do you use systems designed to compile knowledge in an orderly manner, such as online databases of documents?	70% Agreed 30% Disagreed
Web pages and printed publications	Do you use web pages or printed publications to gather information for job related research or other organizational purposes?	60% Agreed 40% Disagreed
Training materials	Do you consult training materials to troubleshoot problems?	70% Agreed 30% Disagreed
Mentors	Do you have mentors?	70% Agreed 30% Disagreed

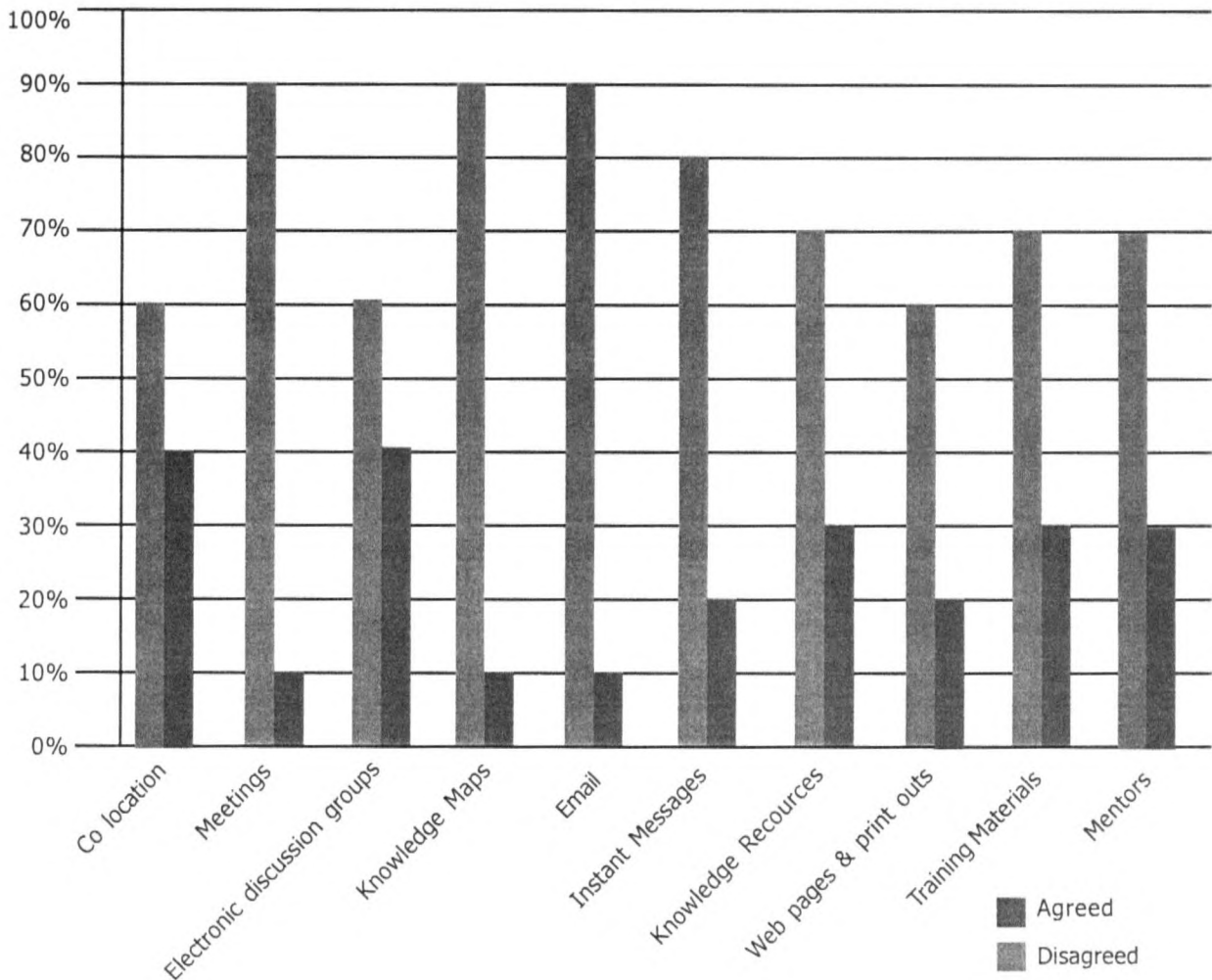


Fig-2 Importance of Knowledge Sourcing Practices and Outcomes

C. Organizational Support and Knowledge Sharing

This section deals with data collected on the extent to which the policies and processes of an organisation were structured to support knowledge sharing between employees. We found that for every academic institution(s), the culture of supporting knowledge sharing was important. We interpret this to imply that traditional arguments about informal knowledge-sharing practices being prevalent may over-state the level of knowledge sourcing and sharing

that goes on as all organizations do not naturally have such a culture of sharing. If this is true, then there are indeed considerable opportunities for improvement in KM practices in the academic institutions. Table 3 gives details of questions sets 18 to 23 that were posed to collect information about these aspects. For each question a rating was required in yes or no. The results for this group of question are given in Figure 3. The percentage adjacent to each bar indicates how, within the given scale, the majority of respondents answered to the given question.

Table-3 Organizational Support and Knowledge Sharing

Knowledge Management Parameters	Questions asked by using the questionnaire	Sample Size	Respond
Formal / Informal Culture	Does your college have more informal culture than others?		90% Agreed 10% Disagreed
Culture and Knowledge Sharing	Does your college have culture that explicitly encourage knowledge sharing?		30% Agreed 70% Disagreed
Knowledge sharing and the President /CEO	Do Chairman /Principal/Directors of your college encourage knowledgeSharing?	100	60% Agreed 40% Disagreed
Knowledge sharing and performance	Does your college take knowledge sharing into account when judging performance?		30% Agreed 70% Disagreed
Best practices	Is your college concerned with monitoring and evaluating best practices to improve day-to-day activities?		80% Agreed 20% Disagreed
Benchmarking	Does your college compare their performance against that of other competitors?		90% Agreed 10% Disagreed
KM Practices	Are KM practices important for your college?		90% Agreed 10% Disagreed

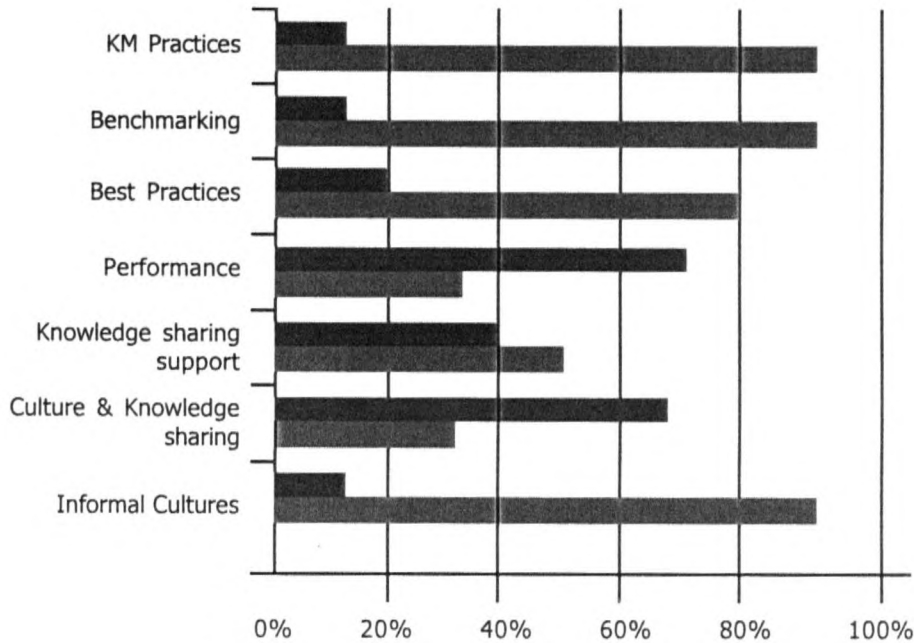


Fig-3 Organizational Support and Knowledge Sharing

5. RESULTS AND DISCUSSIONS

These results paint an interesting picture of knowledge management practices and knowledge sourcing methods in the educational institutions. Generally, the findings of the present paper supports the idea that academic institutions have significant Knowledge Management needs and that they utilize

many of the same Knowledge Management practices that are used in larger organizations. Perhaps the biggest point of divergence between the educational institutions and the actual KM practice is the realm of technology-based KM practices which the academic institutions typically make very little use. Other interesting results are indicated as follows:

Table 4 : Response

Sl.No	Response
1	With respect to Knowledge support, needs 90% of the respondents agreed upon the importance of having access to and utilizing knowledge sources
2	With respect to Group interactivity to rely on group interactions to gain knowledge, the work it has been found that 70% of the respondents rely on group interactions on Annual basis while the rest do the interactions on monthly (10%), weekly (10%), & Daily (10%) basis.
3	With respect to Knowledge sourcing methods, 50 % of respondents approach their colleagues for help with work related issues at any time,30% on daily basis and 10% for monthly,10 % for weekly basis
4	With respect to Behavioral (innovation), about 60% of the respondents have made major improvements or innovative changes to the way they work.50% of the respondents were not agreed with this statement.

Sl.No	Response
5	With respect to Learning, about 40% only respondents know much more about their work at the time of the survey than at the same time of the previous year.
6	With respect to Performance, 80% of the respondents have increased in their performance level in the past years.
7	With respect to Co-location, the answer received yes by 60% of the respondents and 40 % respondents disagreed upon it.
8	With respect to meeting participations, 90% of the respondents were agreed upon it.
9	With respect to usage of Electronic discussion groups 60 % of the respondents agreed upon it.
10	With respect to Knowledge maps, 90% agreed upon it and valued its importance.
11	With respect to use of electronic mail to communicate with their colleagues , 90% agreed upon it and valued its importance
12	In context to the usage of instant messaging programs to interact with other employees 80% of the respondents agreed upon it and rest of the 20% respondents were strongly disagreed.
13	With respect to the usage of systems designed to compile knowledge in an orderly manner, 70% of the respondents were agreed and using the above said resources.
14	The use of web pages or printed publications to gather information for job related research or other organizational purposes,60 % of the respondents agreed upon it and the rest 40% shown their unwillingness.
15	With respect to consultation of training materials to troubleshoot problems,70% of the respondents replied in a positive way whereas 30 % were strongly disagreed.
16	When asked about mentors,70% agreed upon the mentors values in the professional life.
17	With respect to more informal culture than other colleges, 90% of the respondents agreed upon it.
18	With respect to culture that explicitly encourage knowledge sharing in the college, only 30% were agreed upon it and the rest 70% have shown their unwillingness.

Sl.No	Response
19	With respect to Knowledge sharing and encouragement received by the Chairman / Principal/Directors of college encourage the 60% of the respondents were agreed whereas the rest 40 % were not agreed.
20	With respect to Knowledge sharing & performance in judging performance 30% of the respondents agreed upon it whereas 70% of the respondents were not in favor of it.
21	With respect to Best Practices adopted by the college concerned with monitoring and evaluating best practices to improve day-to-day activities 80% of the respondents agreed upon it while 20% of the respondents were not in favor of it.
22	With respect to Bench marking related to the comparison of performance against that of other competitors 90% agreed and showed their approval of the fact.
23	With respect to the importance of KM practices for the college,90% of the respondents agreed upon it

1. PROFILE OF THE RESPONDENTS

The respondents work across various educational institutions are the Professor (34.8%), Associate Professor (32.1%) and Reader (33.1%). A large majority of the respondents were male (82.61%) and this is an indication that men largely dominate the profession. Almost half (52.17%) of the respondents were between 35 and 45 years old with the remaining ones almost evenly split between the ages 46-55 years (26.09%), 55-58 years (17.39%) and the smallest age group over 58 years (4.35%). The results

further indicated that a large majority of respondents have more than 6 years working experience in academics. In terms of educational background, most of the respondents have a postgraduate degree in engineering, management and also Doctorate degree and this show the demands of the profession. In addition to the qualifications, some of the faculties told that they keep on updating their skills especially when new concepts are introduced related to their area of working.

CONCLUSION

Different approaches to Knowledge Management like mechanistic approach, Cultural/Behavioral approach and systematic approach help us to understand the concept better. It can be clearly seen that the environment in which academic institutions operate is changing. Knowledge Management is both a discipline and art. It is a discipline because the processes can be defined and implemented to capture the trend of knowledge with challenges and opportunities. It is an art that causes Knowledge Management to work. Academic institutions need to respond to these challenges in order to better serve the needs of the entire community. One way of doing that is engaging in knowledge management activities, that is, creating, capturing, sharing and utilizing knowledge to achieve the academic goals. Knowledge management is a viable means in which educational institutions could improve their services and become more responsive to the needs of users.

To get started with Knowledge Management, four implementation stages are used which include 1) awareness, 2) infrastructure and tools, 3) organization and behavior, 4) innovation and insight. People gain knowledge from their experiences and their peers' expertise. Educational Institutions need to recognize the knowledge of its staff and create an environment in which their knowledge can be valued and shared. Knowledge is an asset but its effective management requires investment of other assets. Effective management of knowledge requires hybrid solutions of people and technology. In a world where timely access to relevant, actionable knowledge and the ability to maximize the return on knowledge-based assets equates to market power, KM strategies are essential for educational institutions looking not only to prosper but also to survive. Harnessing and effectively transferring the wisdom of employees can provide a competitive advantage. Institutions, even those involved in the high technology sector, have not fully embraced the information systems revolution which is reflected by their comparatively old-fashioned business methods. High technology is becoming increasingly affordable and user-friendly and educational institutions need to recognize this as a potential opportunity to modernize current operations.

Knowledge Management never ends, knowledge managers may feel that if they could only get their organizations knowledge under control, their work would be done. Once this technology is ushered in, knowledge management systems will follow, and academic institutions will have begun to bridge the gap in knowledge management that exists amongst themselves.

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