

Association for Information Systems AIS Electronic Library (AISeL)

PACIS 2009 Proceedings

Pacific Asia Conference on Information Systems
(PACIS)

July 2009

KNOWLEDGE MANAGEMENT IMPLEMENTATION: HOLISTIC FRAMEWORK BASED ON INDIAN STUDY

Parag Sanghani

AES Post Graduate Institute Of Business Management, parag_sanghani@yahoo.com

Follow this and additional works at: <http://aisel.aisnet.org/pacis2009>

Recommended Citation

Sanghani, Parag, "KNOWLEDGE MANAGEMENT IMPLEMENTATION: HOLISTIC FRAMEWORK BASED ON INDIAN STUDY" (2009). *PACIS 2009 Proceedings*. 69.

<http://aisel.aisnet.org/pacis2009/69>

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2009 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

KNOWLEDGE MANAGEMENT IMPLEMENTATION: HOLISTIC FRAMEWORK BASED ON INDIAN STUDY

ABSTRACT:

There is a great need today to acquire, utilise and share knowledge. Today economies have evolved into knowledge economies. Today majority of Fortune 500 companies have knowledge management program in one or another form. Indian business organisations are also feeling need of new business paradigms. Many organisations in India have started knowledge management initiatives. This paper is a part of larger study of Knowledge Management Practices Survey in India. Based on the learning of this study this paper presents Knowledge Management Implementation Framework. Many of the past frameworks are mainly on the process of creation, manifestation use and transfer of knowledge. These frameworks do not take in to account importance of human aspects in knowledge management. This proposed new framework puts proper emphasis on providing training to the employees, providing incentives and rewards to share their tacit knowledge and importance of information technology. Framework is from two-perspective: one organisational and second individual. The major constituents of the framework are : Rewards, Technology, Culture ,Training , Learning ,Strategy, Structure, System, Leadership, Personality, Attitude. Here Rewards, Technology, Culture, Training, Learning are common influencer on organisational and individual knowledge management. Strategy, Structure, System and Leadership are specifically influencing organisational knowledge management. Personality and attitude are more influencing on individual knowledge management.

Key Words : Knowledge Management , Knowledge , Knowledge Management Implementation, India

INTRODUCTION:

Over the past decades, the world has been experiencing significant changes. The key to change is awareness, sharing ideas and coming up with new and innovative ways of staying ahead of the competition. There is a great need today to acquire, utilise and share knowledge. Today economies have evolved into knowledge economies and is characterised by the fact that knowledge become the major factor of production in the value-adding economic activities. In the knowledge economy, knowledge and information effectively overshadow physical assets as the primary units of production, distribution and consumption. The key to growth in the emerging environment is in innovation which is an outcome of development of knowledge. Organisations are discovering that they need to do a better job of capturing, distributing, sharing, preserving, securing, and valuing their precious knowledge in order to stay ahead of their competition (Liebowitz & Beckman, 1998). The ability of companies to exploit their intangible assets has become far more decisive than their ability to invest and manage their physical assets (Davenport & Prusak, 1998). By managing its knowledge assets, an enterprise can improve its competitiveness and adaptability and increase its chances of success. Managing knowledge is the top strategic agenda in all companies. Companies across all sectors recognise the critical role knowledge management will play in their future success. Today majority of Fortune 500 companies have knowledge management program in one or another form.

Globalisation, liberalisation and technological development have also changed business environment in India. Indian business organisations are also feeling need of new business paradigms in knowledge economy. Knowledge management is a necessity that can make all the

difference between survival and an early demise. With the increase in information technology usage, many organisations in India have started knowledge management initiatives. Review of available literature on knowledge and knowledge management will lead us to conclude that the majority of the past experience and developments in the area of KM have so far occurred in western industrialized countries. The situation in Indian societies makes the applicability of KM different from the Western countries and requires further understanding. However, the only available frameworks and examples were based on organisations in Western industrialised countries (Holsapple and Joshi, 1999; Lai and Chu, 2000; Rubenstein-Montano et al, 2001; Hedlund and Nonaka, 1993). KM frameworks, which are designed from the experience and the interpretation of cases from Western industrialised countries, need to be tested in a different context. This requires a need for exhaustive KM research of Indian organisations to develop such framework. Currently there is not a framework or architecture to support knowledge management in Indian organisation. In order to realise the benefits of this relatively new “competency” or “discipline”, a framework is needed. This paper is an attempt in that direction. Apart from few books on KM by Indian authors and few articles in top Indian management journals, there is no systematic knowledge management research available in Indian context. This research paper shows part of larger research I had carried out on KM Practices in India. This research paper presents conceptual knowledge management implementation framework based on study of KM practices currently used to promote sharing, transfer, assimilation and maintenance of knowledge in the Indian organisations.

DEFINING KNOWLEDGE AND CLASSIFICATION :

Knowledge is a broad and abstract notion that has defined epistemological debates in Western and Eastern philosophy from ancient times. Although there is a focus on knowledge today, there are few researchers and others who can give a clear account of what knowledge really is. There is as yet no generally accepted definition of knowledge, although many have tried to pinpoint what knowledge is and how it can be classified into different kinds of knowledge (Diedrich & Targama, 2000).

The philosophy of knowledge broadly divides into debates about the questions “What is it possible to know” (ontology) and “How can we be certain of what we know” (epistemology). Adopting some of these viewpoints as complementary, rather than competing can provide the basis for defining knowledge. Oxford Dictionary which defines knowledge as “a person’s range of information” and information as “something told; knowledge ... items of knowledge”. Webster’s dictionary defines knowledge as “the fact or condition of knowing known by a person or a group of people”. The Random House dictionary defines knowledge as “acquaintance with facts, truths, or principles, as from study or investigation.” A frequently used definition of knowledge is “the ideas or understandings which an entity possesses that are used to take effective action to achieve the entity’s goal(s). Alavi and Leidner (2001) summarise these modern views under five different perspectives: state of mind, object, process, access to information, and capability. The state of mind perspective considers knowledge as a state of knowing and understanding. The object perspective defines knowledge as an object that can be explicated, stored and manipulated (Carlsson et al., 1996; McQueen, 1998). Since this study has applied rather than a theoretical or philosophical orientation, following definition of knowledge based on the work of Nonaka (1994), Huber (1991) and Davenport and Prusak (1998) is more related to our research work: As per Nonaka and Huber, knowledge is a justified personal belief that increases an individual’s capacity to take effective action. Action in this context refers to physical skills and competencies, cognitive/intellectual activity (e.g. problem-solving) or both (e.g. surgery). Most admired and widely accepted definition in knowledge management literature has

been given by Davenport and Prusak (1998) which says that *knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knower.* This definition also addresses key cultural components of organisations. These factors include the varied experiences and values of the organisation’s membership and a framework for evaluating and incorporating new experiences and information through embedded routines, processes, practices, and norms. It originates and is applied in the minds of knower. In organisations, it often becomes embedded not only in documents and repositories but also in organisational routines, processes, practices and norms. In hermeneutic perspective knowledge is not a commodity, which can be collected under controlled conditions and bought or sold on a market. Knowledge is subjective enlightenment, a personal property. *A comprehensive view that can be taken to study the KM is : “Knowledge is an Insight derived from data, information, and observations, which is usually reflected through action.”* To put it more simply, knowledge is simply actionable information. Actionable refers to the relevant information being available in the right place and the right time, in the right context and in the right way so anyone (not just the producer) can bring it to bear on decisions being made every minute.

After defining it’s appropriate to classify knowledge which help us in understanding knowledge management implementation. Knowledge is classified into a variety of types. When considering knowledge management, the knowledge developer should be familiar with each type to tap it during knowledge management process. Greek philosopher *Aristotle has* classified knowledge in to *Episteme Knowledge* — abstract generalisations, basis and essence of sciences, scientific laws and principles, *Techne Knowledge* — technical know-how, being able to get things done, manuals, communities of practice, *Prognosis Knowledge* — practical wisdom, drawn from social practice, *Metis Knowledge* — It is what the flair, the knack and the bent of the successful politician is made of a form of knowledge which is at the opposite end of metaphysics, with no quest of ideal, but a search for a practical end; an embodied, incarnate, substantial form of knowledge. Polanyi (1966) classified human knowledge into two categories explicit and tacit knowledge. Explicit or codified knowledge refers to knowledge that is transmittable in a formal, systematic language. Tacit knowledge, on the other hand, has a personal quality, which makes it hard to formalise and communicate. Tacit knowledge is deeply rooted in action, commitment, and involvement in a specific context. This classification was made in a philosophical context. Ikujiro Nonaka (Nonaka 1994; Nonaka and Takeuchi 1995) in explaining the theory of organisational knowledge creation popularised the distinction of knowledge into tacit and explicit dimension. They classify knowledge as either *explicit* or *tacit*, and either *individual* or *collective*. A distinction between tacit and explicit knowledge is critical to understanding the working mechanisms of knowledge management. That explicit knowledge is codified and stored in the “organisational memory” and is available to employees throughout the structure. Conversely, tacit knowledge is personal knowledge possessed by an employee that may be difficult to express or communicate to others. When talking about knowledge it could be useful to distinguish between the individual and the collective level. There are researchers who argue that without an individual level there can be no collective level. Some researchers argue that the collective level exists independently of the individual level. All this classification of knowledge has been summerised in table below

Author	Classification
Aristotle	Episteme Knowledge, Techne Knowledge, Prognosis Knowledge, Metis Knowledge

Pears (1972)	Knowledge of facts, knowledge of facts acquaintance, knowledge of how to do things
Machlup (1962)	Practical knowledge, Intellectual knowledge, Small-talk and pastime knowledge, Spiritual knowledge, unwanted knowledge
Blackler (1995)	Embodied, Embedded, Embrained, Encultured, Encoded
Polanyi (1967), Nonaka (1994)	Tacit, Explicit
Awad & Ghaziri (2003)	Shallow & Deep Knowledge Procedural Knowledge, Declarative Knowledge, Semantic Knowledge, Episodic Knowledge
Khandelwal & Gottschalk (2003)	Core knowledge ,Advanced Knowledge & Innovative Knowledge
Holsapple and Whinston(1988) , Holsapple(1995)	Descriptive , Procedural , and Reasoning knowledge
Boisot (1995)	Proprietary, Public, Personal, Commonsense
Choo (1998)	Tacit, Explicit, Cultural
Conklin (1996)	Formal, Informal
Spender (1998)	Explicit, Implicit, Individual, Collective
Rulke, Zaheer and Anderson (1998)	Transactive, Resource

Table 1 : Knowledge Classification

Like knowledge, knowledge management is also lofty concept – debated by academics and managers over a decade. The following definitions of knowledge management illustrate the varying views of many researchers and practitioners. Knowledge Management is processes of capturing, distributing, and effectively using knowledge (Davenport, 1994). KM is the capability of a company to create new knowledge, disseminate it throughout the Organisation and embody it in products, services and systems (Nonaka & Takeuchi, 1994) . Knowledge Management is systematic approach to find, understand and use knowledge to create value (O’Dell, 1996). Knowledge management is the process of increasing the efficiency of knowledge markets by generating, codifying, coordinating, and transferring knowledge (Davenport & Prusak, 1998). To summarise different view , it can be said that knowledge management is the systematic, explicit and deliberate building, renewal, and application of knowledge to maximise an enterprise’s knowledge related effectiveness. From all the definitions mentioned above, it can be inferred that knowledge management is a systematic management of organisational knowledge which involves the process of creating, gathering, organising, diffusing use and exploitation of knowledge for creating business value and generating a competitive advantage.

The knowledge life cycle and the processes that it encompasses provide the key to understanding knowledge management and the optimal method for its implementation within an organisation. Leading thinkers in the field agree that although knowledge processes vary in importance depending on the type of organisation, they are crucial to the success of any knowledge management system. To understand knowledge management, understanding of the knowledge cycle is required. Nonaka & Takeuchi (1994) model the process of "organisational knowledge creation" as a spiral in which knowledge is "amplified" through these four modes of knowledge conversion. It is also considered that the knowledge becomes "crystallised" within the organisation at higher levels moving from the individual through the group to organisational and even inter-organisational levels. explains it explicitly. They propose two dimensions of knowledge creation; Ontological and Epistemological. Ontological: Organisational and individual knowledge, organisation cannot create knowledge without individuals. The organisation supports

creative individuals or provides contexts for them to create knowledge in individual, group, organisation or inter organisation way. Epistemological: Tacit and explicit knowledge, tacit knowledge as mentioned earlier is not easy to visualise, highly personal and hard to formalise. Explicit knowledge can be expressed in words and numbers and can easily be communicated and shared in the form of hard data, e.g. scientific formulae codified procedures or universal principles. When knowledge managed as above mentioned two ways, organisational knowledge creation is moving up to expanding communities of interaction that crosses sectional, departmental, divisional and organisational boundaries. Nonaka & Takeuchi (1995) proposes socialisation, externalisation, combination and Internalisation as four modes of knowledge conversion. Based on this understanding of knowledge and knowledge management we have tried to propose knowledge management implementation frame work.

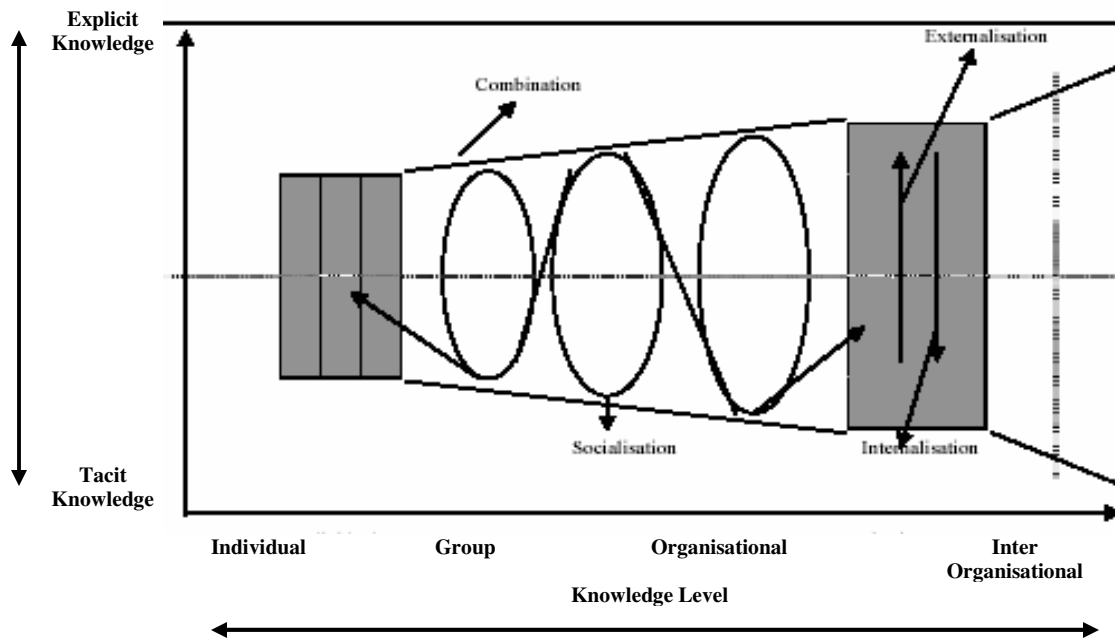


Figure 1 : Knowledge Spiral Model Nonaka & Takeuchi (1994)

Research Approach: In order to carryout this research the method of ‘triangulation’ was used. Triangulation is the technique whereby the researcher uses different approaches to explore the new area. Each method enriches the other and can either reinforce and cross-validate conclusions if each corroborates the other, or reveal inconsistencies, which may indicate aspects of the research not previously considered, or else show that the research topic was not as straightforward as first thought (Robson, 1993). This paper uses primarily first two research methods which are qualitative in nature out of three 1. Literature review 2. Conversation with management experts in KM and 3. Collecting, testing and analysing data using the questionnaire. This has happened while collecting data for major study of current knowledge management practices in Indian context.

KM IMPLEMENTATION FRAMEWORKS

Bukowitz and Williams (1999) present a framework for knowledge management implementation as shown in Figure, this framework considers both short time and long time perspectives into account.

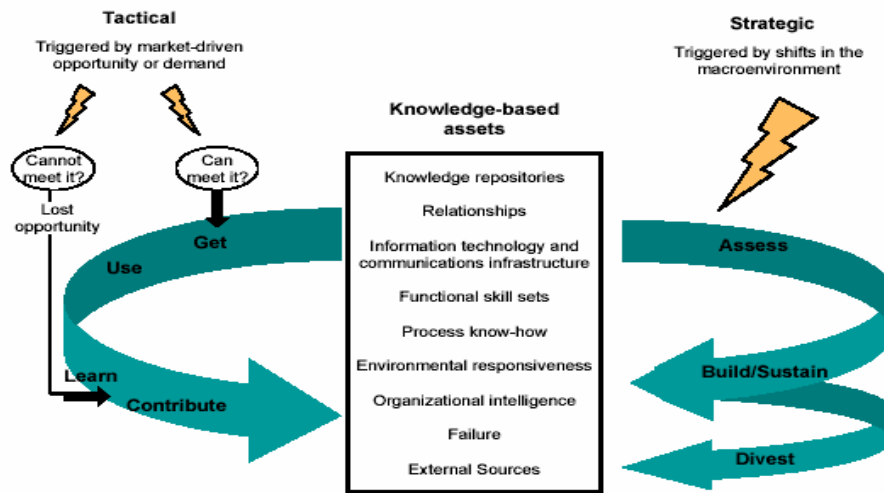


Figure 2: Knowledge Management Process Framework Bukowitz and Williams (1999)

Bukowitz and Williams (1999) broadly divided the KM processes into tactical and strategic ones. The tactical side of the framework is concerned with the process of gathering the information needed for daily work, using of knowledge to create value, learning and contributing back into the system to make knowledge available to others. The strategic process involves realising value from the tactical process where the organisation's knowledge strategy is harnessed with the goals of the organisation. Tiwana (2000) suggests a 10-step knowledge management road map for KM implementation. These steps and their sequence are described in Figure 5-3. All ten steps can be explained in the four phases of the road map. These comprise: Phase - I. Infrastructural evaluation , Phase – II KM system analysis, design, and development, Phase – III System deployment , Phase – IV Evaluation.

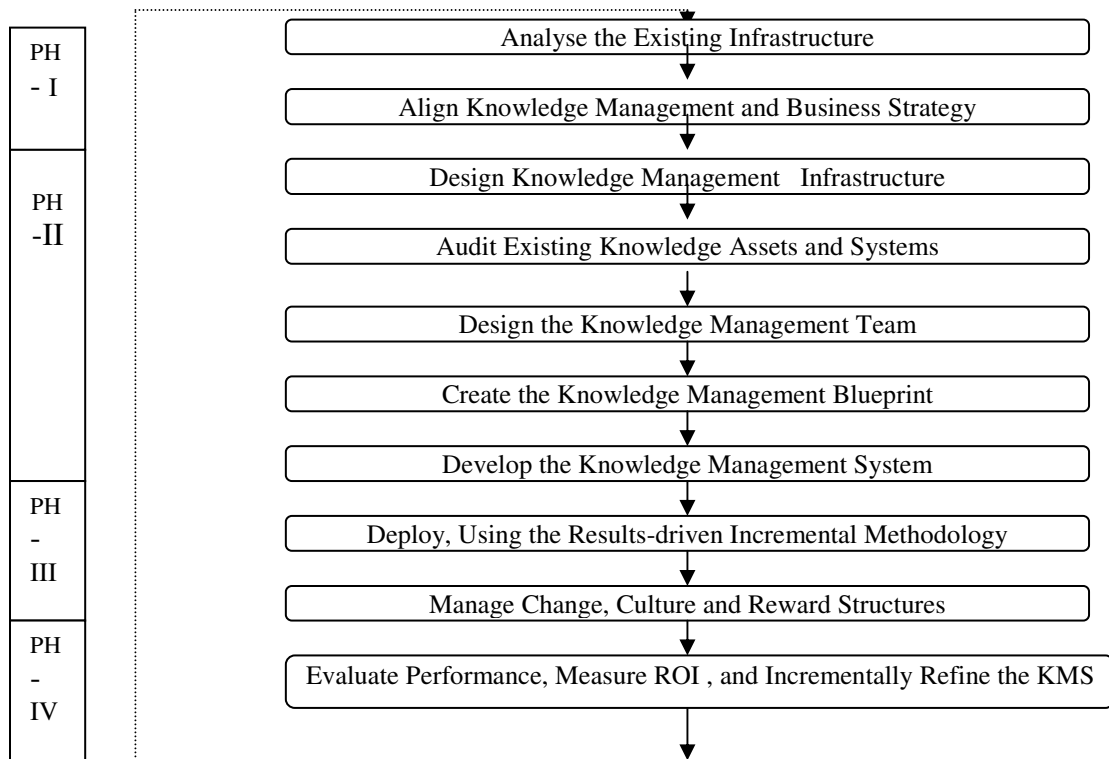


Figure 3 : 10 Step KM Roadmap Tiwana (2000)

The 10-step road map develop by Tiwana (2002) can help organisation to create a link between business strategy and knowledge management. It can help organisation to design, develop, and deploy a knowledge management system that delivers actual business results. It is a road map that will help organisation to implement a knowledge management strategy and a knowledge management system. Similarly Madan Mohan Rao (2002) has developed 8-C framework for implementing knowledge management. As shown in Figure 5.4 these 8-Cs are Connectivity, Content, Community, Culture, Capacity, Cooperation, Commerce and Capital. He suggests that to have successful knowledge management system organisation need to answer all 8C's.

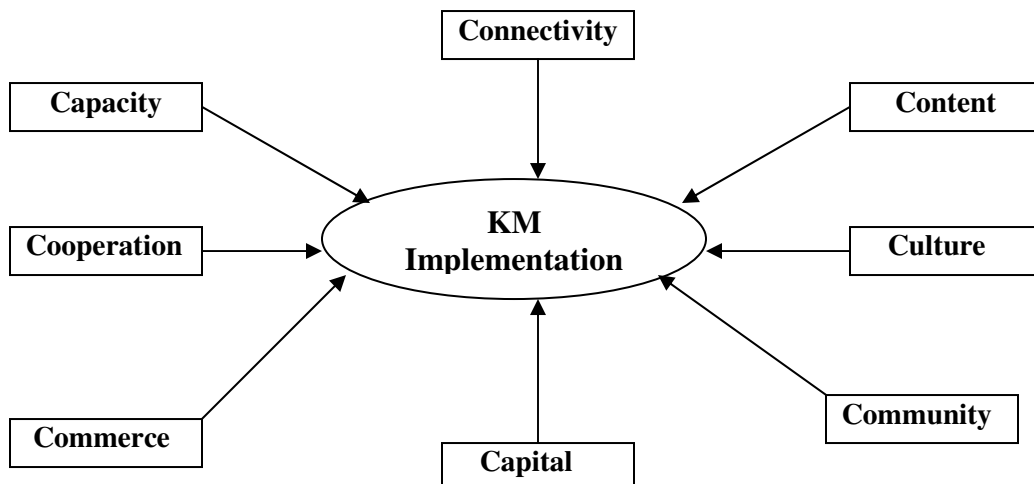


Figure 4 : 8-C Framework Rao, (2002)

All the frameworks suggested are mainly on the process of creation, manifestation use and transfer of knowledge and how an organisation can create knowledge at the individual, group and organisational levels. These frameworks do not take in to account importance of human aspects in knowledge management. Based on literature review, new framework has been suggested. This new framework puts proper emphasis on providing training to the employees, providing incentives and rewards to share their tacit knowledge and importance of information technology. This framework is explained in Figure It is from two-perspective: one organisational and second individual. The major constituents of the framework are : Rewards, Technology, Culture ,Training , Learning ,Strategy, Structure, System, Leadership, Personality, Attitude. Here Rewards, Technology, Culture, Training, Learning are common influencer on organisational and individual knowledge management. Strategy, Structure, System and Leadership are specifically influencing organisational knowledge management. Personality and attitude are more influencing on individual knowledge management. This is explained in following paragraphs.

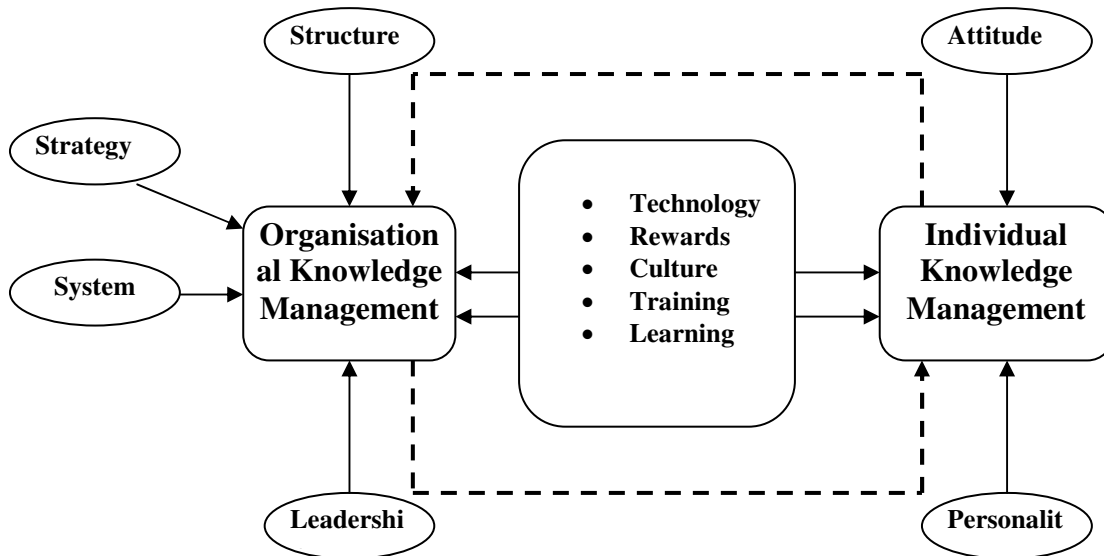


Figure 4 : KM Implementation Framework

Rewards: Rewards and incentives contribute to knowledge management implementation by shaping individual and group behaviors. Rewards for knowledge sharing are economic reward, reciprocity benefit, knowledge self-efficacy, the enjoyment derived from helping others, and image. In order to have proper knowledge management, organisations may need to create various reward mechanisms to encourage employees to share their knowledge. These include salary, bonuses in the forms of cash or stock options, better work assignment, career advancement and job security. If knowledge sharing is rewarded by such extrinsic benefits, individuals may be motivated to contribute their knowledge. Individual may be motivated to share knowledge to the group in the expectation that he or she will receive useful help in return in the future. For many individual rewards for knowledge sharing may be enjoyment in helping others. They may derive

intrinsic enjoyment from helping others and gain pleasure by demonstrating their own altruistic and pro-social behavior. An important reward for contributing knowledge could be an enhancement in the reputation or status of the knowledge provider. Employees have been found to share their best practice because of a desire to be recognised by their peers as key contributors or experts. Organisation need to design their reward system such away that it provides a monetary or nonmonetary rewards as per requirements of individuals. Individual knowledge management is also required to have proper reward system for managing individual knowledge. Here rewards may not be monetary but it may be internal like desire to excel, desire to know much, etc.

Technology: Proper knowledge management is unthinkable without appropriate technology. Managers need information systems that will help them in tracking and building the organisation's collective knowledge. The ability to create knowledge about the future and learning to implement it quickly in the form of a technology is the core organisational competencies (Newman, 1997). Information systems also can help the organisation manage and leverage knowledge systematically and actively. Savary (1999) insisted that an effective information systems infrastructure is necessary for the organisation to implement the knowledge management process. It includes a good infrastructure such as databases, computer networks and software. As discussed in earlier chapter technological tools are essential component of knowledge management whether individual or organisational knowledge. Selection and use of technology will determine success of the knowledge management implementation. These tools would be designed and implemented appropriately as the enablers for a knowledge management system. In addition to these traditional technologies, some enterprises are using new and more advanced software designed to meet the demands for tools that specifically address knowledge management systems (Sena & Shani, 1999). To ensure vital success, intelligent agents (human value) and technical tools can provide the basis for long-term organisational effectiveness of firms that wish to institutionalise knowledge management (Carneiro, 2001). Many researchers have insisted that an effective information systems infrastructure is one of the most critical success factors for the success of knowledge management implementation. In order to pursue effective knowledge management, information systems must be reliable, user-friendly, compatible with other platforms and accurate. Technology influence on knowledge management has been discussed in detail in chapter four of this thesis.

Culture: An essential element of success in knowledge management is creating an organisational culture that can motivate, support and encourage capture, create, share, codify and reuse of knowledge at an individual, group and organisational levels. An organisation's culture provides order and structure for knowledge management activities. It has been identified that the biggest challenge in knowledge management is not a technical one but a cultural one (Forbes, 1997; Koulsi, 2000). Knowledge management is a radical innovation or changes to an organisation's operations, and thus, is to be regarded as an intervention on the organisation's culture (Gooijer, 2000). Larson (1999) insisted that it is important to first consider the company's cultural environment before implementing knowledge management. Companies that wish to capture the knowledge of their employees must cultivate a culture that encourages teamwork and knowledge sharing. Managing culture is a key challenge for individual or organisational knowledge management as explained in first part of this chapter, cultural issues are primary concern for knowledge management implementation. Knowledge management seems fundamentally a cultural phenomenon. The cooperation, coordination and empowered teamwork of employees should be supported as the standard attitudes in the knowledge management environment. Organisational and individual cultural adjustments are necessary for effective knowledge management program. Knowledge management cannot be established and implemented without the support of knowledge-friendly culture. It is the culture of the organisation that supports or impedes knowledge creation and transference both internally and to its customers.

Transformation to a knowledge-centered organisation is possible only when organisational culture becomes conducive for knowledge management. This is due to the basic assumptions, norms and values that guide employees' behaviour are encompassed by the culture of an organisation. Understanding individual's social background will also help us in designing proper knowledge management system. As impact of culture on knowledge management is discussed in first part of this chapter, its essential for successful knowledge management implementation to understand culture properly.

Learning: Individual and organisational learning ability is also a major factor in knowledge management implementation. Organisations need to develop various methods for increasing organisational and individual learning ability. This can be possible through designing proper reward system and training. Today increasing learning ability of individual and organisation is key management challenge. All highly recognised companies are today aligning their resources to be a learning organisation. Successful knowledge management implementation required to understand and give due importance to learning ability of a organisation and individuals.

Training: Training individuals and groups regarding contemporary knowledge management methodologies will enhance knowledge management program efficiency and effectiveness. Training will make organisation a learning organisation. Numerous studies have pointed out the importance of training. In virtually every market, customers are demanding higher quality, lower costs and faster cycle times. To meet these requirements, firms must continually improve their overall organisational performance. Rapid advances and technology and improved processes have been important factors helping businesses meet this challenge. However, the most important competitive advantage to any firm is its workforce – one that must remain competent through continuous training and development efforts. Training should provide employees and managers the skills and information to fulfill their responsibilities. Improved performance – the bottom line purpose of training and development - is a strategic goal for organisations. Learning organisations view training as a strategic investment rather than a budgeted cost. According to Carneiro (2001), the importance of training capabilities for any organisation is well recognised, especially for those agents concerned with preserving intellectual capital. A problem with the implementation of knowledge management is the fact that staff needs to be trained in writing, editing and formatting skills in order to input items to a knowledge repository, as information has to be presented in a prescribed standardised fashion (Bennett & Gabriel, 1999).Cohen and Backer (1999) claimed the process of successful knowledge creation would not be possible without appropriate training procedures. Rossett (1999) pointed out five ways that knowledge management perspectives can influence training: (1) joining ongoing efforts and collaborating with other organisational people involved in knowledge management initiatives; (2) repurpose existing knowledge bases and training materials; (3) use many strategies to support people at work; (4) head a pilot effort aimed at seeking opportunities to use knowledge management perspectives and systems; and (5) increase the “learningfulness” of the knowledge management system. According to McCune (1999), one of the obstacles to the proper implementation of knowledge management project includes employees' unwillingness to share information. Organisation should take the responsibility for teaching the change in mindset required to implement knowledge management. Employees need to know how sharing of knowledge benefits them. The importance of training capabilities for any organisations is well recognised, especially for those agents concerned with preserving intellectual capital. Successful knowledge creation and sharing activities and processes, which lead to higher customer satisfaction, would not be possible without appropriate training. Staff needs to be trained in writing, editing and formatting skills in order to input items in the knowledge repository, as information has to be presented in a prescribed standardised fashion. Timely and appropriate employee training is one of the key success factors for knowledge management implementation.

All the above mentioned factors are important for both organisational and individual knowledge management. Organisational knowledge management implementation required paying additional, special attention to organisational structure, system, strategy and leadership. Individual knowledge management required paying attention to individual personality and attitude.

Structure: It's very important while designing knowledge management system to give due consideration to organisational structure. Knowledge management implementation required having understanding of distribution of power and authority in organisation. Today's complex and ever changing environment requires company to have temporary structural changes to implement knowledge management program successfully.

System: Organisations need to pay attention towards all the formal and informal procedures that allow the organisation to function. Successful implementation of knowledge management may not be achievable if organisations cannot shift from systems that hold accountable for processes to systems that hold people accountable for results. One of the most important jobs for knowledge management success depends on elimination of organisational system constraints. Organisational system constraints lead to inefficiency, ineffectiveness. They tend to create hierarchical bureaucracy with few incentives to innovate. Hierarchical bureaucracy means that every task is broken into simple parts, each has the responsibility of a different level of employees, and each defined by specific rules and regulations (West, 1992). System constraints result in not only a rigid preoccupation with standard operating procedures, vertical chains of command and slow response. Here organisations need to integrate knowledge management processes with the organisational processes. If organisation is able to integrate these processes smoothly than knowledge management implementation will be more successful.

Strategy: Organisation needs to integrate knowledge management strategies with organisational strategy formulation. As organisational strategies and knowledge management strategies aligned, organisation will get maximum benefit out of knowledge management implementation.

Leadership: Another aspect for successful organisational knowledge management is leadership. Pattern of substantive and symbolic actions undertaken by top executives regarding knowledge management implementation determine its success. Because top executive spend most of their time in developing organisational strategy, their personal goals and values are very important in knowledge management implementation. Leadership practices encompass broad issues of strategy and how the organisation defines its business and use its knowledge assets to reinforce its competencies (Jager, 1999). For successful knowledge management implementation, the visible leadership and commitment of top management must be sustained throughout a knowledge management effort. A fundamental paradigm change is required in top management's philosophy. Primarily, management must foster employees' commitment, capability and confidence rather than try to control employees. Leadership involves envisioning the future, coordinating the development of a coherent mission for the organisation, overseeing the development, controlling the processes and providing a motivation toward organisational culture and climate. The role of top management is to create the favorable climate for knowledge creation and to manage knowledge emergence (Binney, 2001). Poor leadership quality has been identified as a threat to successful implementation of knowledge management. Greengard (1998) insisted that one of the most important factors for successful knowledge management is to ascertain that senior management recognises its importance and buttresses the development of programmes and policies to make it real. Recognition of the importance of knowledge management by the senior managers is necessary to ensure the success (Guns & Valikangas, 1998). Hansen et al. (1999) mentioned that only strong leadership could provide the necessary direction, where a organisation

will need to implement and effectively deploy a knowledge management program. According to Davenport et al. (1998), top management leadership and commitment were the most critical factors for the successful knowledge management. Goh (1998) pointed out that effective knowledge creation is not possible unless leaders empower employees and show a strong commitment to the organisation. Top management must be willing to communicate with employees to make knowledge realistic and coordinate knowledge management implementation process. The new leadership style must include more vision and less micro-management, more supporting and less directing, more teaching and less controlling, more team development with a win-win focus and less win-lose focus, and a team responsibility rather than individual activity. According to Hall (2001), a critical factor in the value of knowledge connection is the leveraging of leadership capability, because when someone in leadership experiences mentoring with values instrumentation, he or she becomes aware in explicit manner what his and her values are. To realise the potential of knowledge management, enterprise leadership must provide the proper environment to motivate its workers to enable the creating, organising and sharing of knowledge (Abell & Oxbrow, 1999). A leader's responsibility is to be continually aware of the state of knowledge leadership within the organisation and continually evaluating the organisation's inventory of knowledge with the potential to deliver market leadership, readiness to exploit it, timing for release and potential lead time before a competitor reverse engineers the product or process (Newman, 1997). Trust, openness and courage will be the core values that are visible in everyday's managerial actions where the leader recognises the value of knowledge and actively supports knowledge teams in their work. Top management has the responsibility to guide employees and lead the implementation of knowledge management. Top management leadership and commitment were the most critical factors for the successful knowledge management program, particularly in knowledge creating and culture sharing activities. In fact, poor leadership quality has been identified as a threat to successful implementation of knowledge management.

Factors, which influence specifically individual knowledge management, are individual's personality and attitude. Individual's personality and attitude will determine his or her knowledge management requirement. Personal knowledge management strategies should keep in to consideration individual's personality and attitude. Tools and technology, which are used in personal knowledge management system, has to considered individual's personality and attitude. Organisations need to manage both organisational knowledge and individual knowledge for successful knowledge management implementation. For this, organisations need to focus on all the above mentioned aspects. Any knowledge management program has to deal with technology and behavioral issues

CONCLUSION : Knowledge management initiatives are expanding across all types of organisations and companies worldwide. Major objective of the paper is to present conceptual KM implementation frame wok based on learning of current KM practices survey in Indian organizations. The implementation frame work suggested in this paper tries to provide holistic view of KM implementation which earlier frameworks have ignored. Future research should focus in validating this model in different environments or through case studies.

REFERENCES :

- Abell, A. and Oxbrow, N. (1999). People who make knowledge management work: CKO, CKY or KT? Knowledge Management Handbook, Liebowitz, J., ed. Boca Raton, FL: CRC Press.
- Alavi, M. and Leidner, D. (2001). Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. MIS Quarterly, 25 (1), pp. 107-136.

- Bhatt G. (2001). Knowledge Management in Organisations: Examining the Interaction between Technologies, Techniques, and People. *Journal of Knowledge Management*, Vol. 5 No. 1, pp. 68-75.
- Bennett R. and Gabriel H. (1999) Organisational factors and knowledge management within large marketing departments: An empirical study. *Journal of Knowledge Management*, 3(3), pp. 212–225
- Binney, D. (2001). The knowledge management spectrum – understanding the KM landscape. *Journal of Knowledge Management*, 5(1), pp. 33 – 42
- Carlsson, S., El Sawy, O., Eriksson, I., Raven, A. (1996). Gaining Competitive Advantage through Shared Knowledge Creation: In Search of a New Design Theory for Strategic Information Systems. In *Proceedings of the 4th European Conference on Information Systems*, July 2-4, Lisbon Portugal.
- Carneiro, A.(2001). The role of intelligent resources in knowledge management. *Journal of Knowledge Management*, 5(4), pp. 358 – 367.
- Chung-Hung, T. and Hwang-Yeh C.(2007). Assessing Knowledge Management System Success: An Empirical Study in Taiwan's High-Tech Industry,*Journal of American Academy of Business*, Cambridge; Hollywood Mar 2007. Vol.10, Iss.2;p.257.
- Davenport, T.H. and Prusak, L. (1998), *Working Knowledge: How Organizations Manage What They Know*, *Harvard Business School Press, Boston, MA*.
- Diedrich, A. and Targama, A (2000). Towards a Generic Theory of Knowledge and its Implications for Knowledge Management. Presented at the 7th Workshop on Managerial and Organisational Cognition ESADE, Barcelona.
- Forbes (1997). Knowledge management: The era of shared ideas. *Forbes*, 160(6), p.28.
- Ghosh, B.& Scott, J.E (2005). Information Technology in Biomedicine, *IEEE Transactions on* Volume 9, Issue 2, June 2005 Page(s):162 – 168.
- Giovanni, B. & Flavia C.(2007). Global technology and Knowledge Management: product development in Brazilian car industry, *International Journal of Automotive Technology and Management*. Vol.7,Iss.2-3;p.135-152.
- Goh, S. (1998). Toward a learning organisation: The strategic building blocks. *Advanced Management Journal*, 63(2), pp. 15 – 18.
- Gooijer, J. (2000). Designing a knowledge management performance framework. *Journal of Knowledge Management*, 4(4), pp. 303 – 310.
- Guns, W.D. and Valikangas, L. (1998). Rethinking knowledge work: Creating value through idiosyncratic knowledge. *Journal of Knowledge Management*, 1(4), pp.287 – 293.
- Hallin, C. (2008). Knowledge management in the hospitality industry: A review of empirical research,*Tourism Management* Vol.29,Iss.2;p.366-381
- Hedlund, G. and Nonaka, I. (1993). Models of Knowledge Management in the West and Japan. In Lorange et al. (Eds.), *Implementing Strategic Process: Change, Learning and Cooperation*. Blackwell, Oxford.
- Holsapple C. and Joshi K. (1999). Description and analysis of existing knowledge management frameworks, in *Proceedings of the Hawaiian International Conference on System Sciences*, Maui, Hawaii.
- Holsapple, C. and Whinston A. (1988). *The information Jungle: A Quasi-Novel Approach to Managing Corporate Knowledge*. Dow Jones-Irwin, Homewood, IL.
- Hung, Y. (2005). Critical factors in adopting a knowledge management system for the pharmaceutical industry, *Industrial Management & Data Systems*, Vol.105,Iss.1-2;p.164-183.
- Hutchinson, V. & Quintas, P.(2008). Do SMEs do Knowledge Management?: Or Simply Manage what they Know? *International Small Business Journal*; 26; 131.
- Jager, M.D. (1999). The KMAT: Benchmarking knowledge management. *Library Management*, 20(7), pp. 367 – 372.

- Karunakar P.(2005). Knowledge management: a challenge in IT industry, *Electronics Information and Planning*, Vol.33,Iss.1-2;p.18-21.
- Kazi, A. (2005). Knowledge management in the construction industry: A socio-technical perspective, *Information Management*, Vol.18,Iss.1-2;p.21-22.
- Lai H. and Chu T. H (2000). Knowledge management: A review of theoretical frameworks and industrial cases. In R. H. Sprague, Jr., editor, *Proceedings of the 33rd Annual Hawaii International Conference on Systems Sciences*, HICSS-33, pages 925–934, Los Alamitos, CA, USA.
- Lakshman, C. (2008). Supplier-focused knowledge management in the automobile industry and its implications for product performance, *Journal Of Management Studies*. Vol.45,Iss.2;p.317-342.
- Laudon K. C and Laudon J. P(2002) , *Management Information Systems*, 7th Edition, New Delhi, Prentice-Hall India,
- Li, Z. Ye, J.and Zou, Y. (2007).An empirical study on the effect mechanism of knowledge management on new product development in aviation industry, *International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2007*, p.5455-5458.
- Liebowitz, J. & Beckman, T. (1998). *Knowledge organisations: What every manager should know*, Boca Raton: FL: St. Luice Press.
- Newman, V. (1997). Redefining knowledge management to deliver competitive advantage. *Journal of Knowledge Management*, 1(2), pp. 123 – 128.
- Nonaka I. and Takeuchi H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.
- Olla, P. and Holm, J. (2006).The role of knowledge management in the space industry: important or superfluous? *Journal of Knowledge Management* Vol.10,Iss.2;p.3-7.
- Robson, C. (1993). *Real world research: A resource for social scientists and practitioner-researchers*. Blackwell: Oxford.
- Rubenstein-Montano, B., Liebowitz, J., Buchwalter, J., McCaw, D., Newman, B.,Rebeck, K., (2001). A Systems Thinking Framework for Knowledge Management. *Decision Support Systems*, 31(1), pp5-16
- Sena, J.A., & Shani, A.B. (1999). Intellectual capital and knowledge creation: Towards an alternative framework. *Knowledge Management Handbook*, Liebowitz, J., ed., Boca Raton, FL: CRC Press.
- Shankar, R. , Singh, M., Narain, R. and Kumar, A. (2006) .Survey of knowledge management practices in Indian manufacturing industries, *Journal of Knowledge Management* , Vol.10,Iss.6;p.110-128.
- Thomas, B. (2007). Knowledge Management and the Oil Industry, *Oil, Gas & Energy Quarterly*, Vol.55,Iss.4;p.829-37.
- West, W. (1992). *Controlling the bureaucracy: Institutional constraints in theory and practice*. Sharpe. Armonk, NY
- Wickramasinghe N. Bali, R and Geisler E.(2007).The major barriers and facilitators for the adoption and implementation of knowledge management in healthcare operations, *International Journal of Electronic Healthcare* , Vol.3,Iss.3;p.367-381.