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A STUDY ON CONCEPTUAL FRAMEWORK ON KNOWLEDGE MANAGEMENTIMPLEMENTATION IN IT INDUSTRY CHENNAI CITY

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Abstract

Every organization is striving in a highly dynamic and competitive market. Entrepreneurs are continuously trying to use various maneuvers with a blend of technology to gain competitive advantage. However, only using technology may not help them to a large extent. So they need to discover some innovative way to survive, using the existing resourcesto gain maximum benefit. Knowledge management has been found to be a better option to achieve competitive advantage. It helps in improve competencies and taking right decision to reduce or minimize the errors. The primary objective of this study is to understand the concept of Knowledge Management and its practices being adopted in Indian IT Industry. The study focuses on exploring the factors influencing the implementation of Knowledge Management and the factors affecting the satisfaction level of employees of IT industry by evaluating various modelsof Knowledge Management. This study will offer a comprehensive platform for future Knowledge Management research and provides managerial implications for IT companies, to better realize its worth and the possible impediments involved in the processes of adopting, implementing and innovation in Knowledge Management. The findings of the study will be useful to understand and analyze various facets of Knowledge Management as well as to highlight the importance for the continuous growth of IT businesses with the help of exemplifying knowledge management practices conducted in IT industry of Chennai.

Keywords: Knowledge. Knowledge Management, IT Industry

INTRODUCTION

Every organization in this twenty-first century is striving hard in a dynamic and highly competitive market. They are trying to use various technical methods to achieve competitive advantage. However, using only technology will not help them to a much extent. It is requiredto find some innovative method or way to sustain and survive, leveraging existing resources to get maximum benefit of it. Knowledge Management is one of the interesting area which can provide competitive advantage such as greater competencies, decisions making with minimal errors, innovation, collaboration and knowledge sharing, easier way to expertise and improve understanding. Knowledge is a human quality that resides in the thoughts and feelings of an individual that helps to identify and interpret one's thoughts and understanding. Today, every organization wants to retain and exploit the existing knowledge

by way of controlling and managing it. It becomes the biggest asset which help corporate to enhancetheir sustainability. Knowledge Management refers to identifying and leveraging the collective knowledge of each employee in an organization in order to increase its productivity (Von Krogh, 1998; Alavi & Leidner, 2001). The objective of knowledge management is to capture available implicit knowledge in the organization and convert it to explicit performance, so that employees may take advantage of it. Such information sharing processhelps organization in making quicker, improved and better decision. Ultimately, organizations core competencies get wider, betterand stronger throughout the organization by improvement in organizational learning with the help of knowledge management. Knowledge Management basically focus on the use of information technology, business processes and human resources to develop and share knowledge within the organization with the intentionof growth and sustenance (Anantatmula, 2005). All the organizational activities related to knowledge, when harnessed in a way to create value to the organization is considered as knowledge management. Hence, knowledge management, when strategically and effectively designed, facilitates an effective flow of knowledge throughout the organization.

- "Information "means is the act of formatting or the condition of being informed, the communication of knowledge, and knowledge derived from the study, experience or instruction.
- "Technology" means the application of science especially to industrial or commercial objectives.
- "Information Technology" (IT) refers to the creation, gathering, processing, storage and delivery of information and the processes and devices that make this possible. Information technology can process raw data, recycle processed information and use it as data in another processing step and package information into a new form so it's easier to understand, more attractive or more useful.
- Information technology stands timely on two way's legs: Hardware and Software. Hardware is any of the physical equipment in a system and all of the elements used to the information system together.
- Software guides the hardware in the performance of its duties. The detailed and precise step by step instructions allows a computer to perform useful work. Information Technology is defined as computer technology (either hardware or software) for

processing and storing information as well as communications technology for transmitting information. There are three levels of information technology.

History of Information Technology

The first was the ENIAC (Electronic Numerical Integrator and Computer) which was completed on 1946. The first use was by the government to manage the national census and for research on nuclear weapons. Table shows the history of I.T**.**

History of Information Technology

Time Line	Machine	Application
1946 – 1963	Vacuum tube within put by punch cards or magnetic tape	Scientific and engineering.
1964 – 1976	Distributed access to mainframe compatible models	Accounting inventory and business transactions.
1977 – 1996	Mid-range computers with user – friendly interfaces	Users involved in system development.
1985 - 1996	Personal computers, local area networks.	Desktop systems with spread sheets and word processors.
1997 – future	Wireless technology internet as primary platform.	E – mail, Electronic commerce Systems.

Source: Gary W. Dickson and gabardine didactics information technology and the future enterprise. Prentice Hall upper saddle River India 2001

These has been a phenomenal growth in capacity speed and reduced size in the last 50 years. This growth will continue to accelerate with a doubling of performance every 18 months. Information Technology has become indispensable in today's fast changing and turbulent global business environment, the reliance on IT is inevitable for organizations that use technology to development and communicate information. In the present knowledge based economy however complete reliance on IT also entails significant vulnerability that isa part of a complex IT environment any system. Network down time may cost several million businesses globally.

Business Success can be achieved when key information and knowledge is disseminated using IT in an accurate, secure and reliable manner and it reaches the right audience at the right time. An IT project requires huge capital investment by the organization. These investments on IT raise questions among the stakeholders of the organization whether they will generate the required business value and if all the risks associated with IT are

mitigated in this regard governance plays a key role in achieving the much needed strategic and tactical alignment of IT keeping the business goals.

IT Industry in India

Information Technology (IT) industry of India has played a key role in putting the country on the global map and acted as a major contributor in the Indian economy. It has globally changed the image of India from a land of orthodox beliefs and bureaucracy to a country of innovation and technology which provides solution and services to the world. IT industry in India, with the main focus on increasing technology adoption, and developing new delivery platforms, accounting for approximately 52 per cent of the US$ 124-130 billionmarket. Today, IT industry in India employees more than 10 million people and continue to grow significantly transforming the country's image globally. India's IT service cost is 2-3 times cheaper than compared to any other geography in the world which becomes a selling point in global IT service industry. The IT industry in India grew at a compound annual growth rate (CAGR) of 25 per cent over 2000-2013,which is 3-4 times higher than the global IT spend, and is estimated to expand at a CAGR of 9.5 per cent to US$ 300 billion by 2020.

Indian IT's core competencies and strengths have placed it on the international canvas, attracting investments from major countries. The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US$ 13,788.56 millionbetween April 2000 and December 2014, according to datareleased by the Department of Industrial Policy and Promotion (DIPP, 2015).

India is one of the biggest hubs for IT companies in allover the world. With global companies looking to make their way into the Indian IT sector, there are a tremendous number of Indian IT Companies which have impacted the industry in a big way. Here is a list of the top 10 ITcompanies in India 2014. At bottom of the list the rising companies like Rolta, Polaris, Mindtree with Revenues near Rs. 2000 Crores. In the middle there are Oracle Financials, Mphasis, Tech M, HCL and towards the Top giants like TCS, Infosys and Wipro.

According to the study conducted by NASSCOM (2014), amongst the top five IT Companies of India, Tata Consultancy Services (founded in 1968) headquartered in Mumbai with a revenue of Rs 47779 Crore stands in first position; the second is the Infosys with a revenue of Rs 32975 Crore, the third is Wipro with a revenue of Rs28312 Crore.

The IT industry is one among the growing industries, which uses teams for project implementations. The existence of high performance teams in Indian IT firms such as TCS,

Wipro, and Infosys and in global IT organizations such as IBM, HP and micro systems etc.., The Indian IT industry has crossed the $60bn mark in 2009. It has seen the double digit growth rate even during tough economic situations more than two million workers are employed bythis industry and another eight million people are indirectly dependent on it. Hence, a total of10 million people are directly or indirectly dependent on this industry in India. Thus, there is a need for us to think about, how we are working among the Indian industrial environment.

Traditionally organizations have given much importance to individual contributions. Because of the growing nature of complexity and inherent benefits of achieving parallelism and reduced response time to customer problems, work time teams came into being in an organization for executing the projects, before the starting off or during the project. However, they all work towards the common goal and develop the product. Indian IT firms like TCS, INFOSYS, WIPRO, and HCL use this kind of teams very extensively. In high technology and product development companies such as INTEL, NOKIA, IBM, HP, SUN and MICROSOFT one can final war rooms frequently. Modern day objective of these IT firms isto achieve more productivity using project teams more than 80% of the performance 500 companies are achieving their organizational objectives using teams.

IT companies functional in India

SL.NO	CITY'S	NO OF IT COMPANY'S
1	IT companies in Bangalore	1300
2	IT companies in Hyderabad	2100
3	IT companies in Chennai	2000
4	IT companies in Delhi, Niota, Gorgon	1000
5	IT companies in Pune	1120
6	IT companies in Mumbai	1500
7	IT companies in Kerala	300
8	IT companies in Kolkata	1000
9	IT companies in Jaipur	200
10	IT companies in Haryana	300
Source: www.IT companies in India. Com		

The above 13000 IT companies are functional in India but, the following are the list of Top IT companies in **India**

- 3 com India Pvt Ltd
- 3 D Solid compression
- 3 D1 system India pvt ltd

- 3 DPLM Software solution Ltd (Geometric Ltd)
- 31 InfoTech Ltd
- 3 S Technologies
- 4 G Identify solution's pvt Ltd
- 7 Hills business solution's Ltd
- 7 Seas Technology Ltd
- 8 Sigma softvill Technologies Pvt Ltd
- Today more than 80% of the fortune 500 companies are executing their project and achieving their organizational objectives.

IT Company's in Tamil Nadu

Tamil Nadu has always been an investor friendly State. Proactive Government policies and the peaceful atmosphere of the state attract investors from all over the World. Tamil Nadu is the preferred destination of choice for all Multi National IT Companies due to the following reasons,

- Stable political climate and investor friendly Government.
- First in skilled man power availability in India-Lowest cost of manpower and living. Peaceful labour climate & man-days lost due to labour unrest is 0.7%.
- FDI magazine of financial Times rates Tamil Nadu as the 'Asian region of the Future' with maximum FDI potential.
- Infrastructure development of Chennai rated better than other states/cities by Independent sit evaluation studies of Ford,World Bank,BMW, Foxconn, stanchart , Nokia , Flextronics,etc.."Tamil Nadu is ranked 'Best' among the Indian States for Investments" TamilNadu is rated
- 1st in Skilled man power availability
- 2nd in value addition
- 3rd largest economy in India
- 3rd in Industrial output
- This state has the pride of holding 10 out of 10 top Multi National IT Companies namely,
- Tata Consultancy Services (TCS)
- Wipro
- Infosys
- Satyam
- HCL

- Patni Computers
- HP
- i-flex
- Accecture
- Mahindra British Telecom

IT Company in Chennai

In the diversified economic foundation, software service has gained a major ground in the Chennai's economy. The late 1990s, witnessed the birth of business process outsourcing and software development and within few years there was a prominent squirt of outgrowth in the number and magnitude of the software industries in the city.

This in turn created a great impact on the city's economy. Chennai is now one of the important software centers of India. Cheap IT labor is one of the main fact that has attracted multitude of multi-billion-rupee foreign software companies such as Microsoft to establish their business in the city as well as in other software centers of India like Bangalore, Hyderabad, Kolkata, and Delhi making the country a booming software exporter worldwide Major software companies in Chennai are like Cognizant Technology Solutions, Accenture, CSC, Satyam, EDS, HP, HCL, Infosys, IBM, Sun Microsystems, Symantec, Verizon TCS and Wipro. The city is a hub of a number of technological park and promises the employment of nearly 3, 00,000 people.

IMPORTANCE OF THE STUDY

Knowledge Management has been discussed widely in literature, concerning Indian Organizations, but still it is at nascent stage in terms of acceptance, adoption, utilization and innovation. By far and large, in Indian IT industry, itis comparatively debatable topic with little empirical data. So, there is a need to conduct a study in order to develop a theoretical framework for understanding the structure of effective knowledge Management Practices and to find outthe its existing status. The findings of the study will be useful to understand and analyze various facets of knowledge management as well as to highlight the importance for the continuous growth of IT business in Chennai with the help of exemplifying knowledge management practices conducted in IT industryof Chennai.

OBJECTIVES OF THE STUDY

The primary objective of this study is to understand the concept of Knowledge Management

and its practices being adopted in Indian IT Industry. The study focuses onexploring the factors influencing the implementation of Knowledge Management and the factors affecting the satisfaction level of employees of IT industry by evaluating various models of Knowledge Management. This study will offer a comprehensive platform for future Knowledge Management research and provides managerial implications for IT companies, to better realizeit's worth and the possible impediments involved in the processes of adopting, implementing and innovation inKnowledge Management.

LIMITATIONS OF THE STUDY

- The study have conducted in Chennai city only with Secondary data.
- The study is focused mainly in the selected IT companies only.

LITERATURE REVIEW

In today's competitive world many companies struggle to implement corporate strategies and are not able to respond to existing markets. To attain competitive advantage in todays' dynamic market, companies use knowledge management. Knowledge management has become an integral part for all kinds of business as it helps organizations to improve on cost, quality, service and response to customer to obtain highest customer satisfaction. However, the major challenge of managing knowledge in the companies is capturing and integrating knowledge to share among all organizational members (Grant, 1996). Any organization has to gain the ability to collect, store, and distribute specialized knowledge to create and sustain competitive advantage (Davenport and Prusak, 1998; Grant 1996).

As markets and organizations are continuously becoming global, the traditional knowledge creation and transfer like face-to-face contact, job rotation, and staff training program may prove to be too slow and less effective. The need to develop more efficient way has led to implementing information systems that are designedspecifically to facilitate coding, combining, and applyingof organizational knowledge (Alavi and Leidner, 1999).

People, processes, and technology are the three main components of knowledge management and are critical to build the learning base for organization to get results. Most of the organizations across the world implemented knowledge management have foundtechnology and processes easier to be placed. However, "people" component has been foundto be a major challenge. To ensure participation of people or employees sharing, integrationand re-use of knowledge is the biggest challenge to achieve business results. The traditional mindsets

of the people in organization needs to be changed. It needs to be changed from "knowledge-hoarding" (to keep hidden or private) to "knowledge-sharing" (share among team members) and needs to create an atmosphere of trust between them. A combined program of motivation, rewards and recognition and other measurements like re- aligned performance appraisal can help to achieve it.

Knowledge management is the basic need of corporate to excel. It's the ability of an organization to manage knowledge and its knowledge workers to compete globally. Earlier, it was thought to be a basic requirement of any knowledge based industry like consultancy, software etc. However, today is has become an integral part of any organization irrespective of type of industry. Moreover, the organizations that are able to create and manage a culture of knowledge management will only manage to survive and achieve growth. Knowledge management has extended to service industry too, beyond manufacturing industry. There are not much studies available in literature focusing service industry, but rigorous study is required as the service industry is growing at much faster pace. Thus, it is necessary to understand the situation and how the service sector develop and implement knowledge management, as it play an important role to make companies compete productively.

An effort has been done in this study to analyze various facets of knowledge management as well as to highlightthe role played by the knowledge management system for the continuous growth of IT business in India with the helpof exemplifying knowledge management practices conducted in IT Industry of India.

About Knowledge Management

Today, all institutions and organizations be it public or private has implemented knowledge management. Most importantly, the innovation and new ideas to create innovative product or processes are majorly driven by effective knowledge management. Knowledge management solutions are now the most important strategic technologies for large companies, according to a new report and survey of European executives by the Economist Intelligence Unit (EIU.com, 2003). In the survey, 67% of companies cite knowledge management solutions as important to achieving their strategic goals. Tooperate efficiently and at an optimum cost the companies and organizations should shorten production cycle time, operate with limited assets, enhance customer service, motivate employees, innovate and improve quality of products. All these can be achieved by leveraging knowledge management which focus on capture, create, update, making available, share and reuse of knowledge byall the stake

holders. Knowledge can be defined as a combination of experience;values, contextual information and expert insight that help evaluate and incorporate new experience and information (Gammelgaard and Ritter, 2000). The documents and repositories are not the only source of knowledge, but it is imbibed in the mind of the people over a period of time and is demonstrated in their work.

Knowledge can be stated as "a fluid mix of framed experience, values, contextual information, and expert insight" (Davenport & Prusak, 2000). "Knowledge leads tosuperior performance: organizational creativity, operational effectiveness and quality of products and services" (Baskerville & Dulipovici, 2006). It is a keyresource that must be managed within organizations and across collaborative enterprise networks (Cormican & Dooley, 2007).

Kael Wing invented the word "Knowledge Management" in the year 1986 at a conference in Switzerland sponsored by the United Nations Knowledge management is defined as the "competitive capabilities that an organization usesto create value in its process, product, and service" (Martensson, 2000). In early 1990's, organizations of business sector realized that competitive advantage over competitors can be obtained when the knowledge assets are utilized more effectively and wisely. Harnessing anorganizations knowledge and collective expertise, and distributing it to the right people at the right time, is very essential for every organization to achieve success.

The Gartner Group (2005) defines it as a "discipline that promotes an integrated approach to identifying managing and sharing of all of an enterprise's information assets. These information assets may include database documents, policies procedures as well as previously unarticulated expertise and experience resident in individual workers. Knowledge management issues include developing, implementing and maintaining the appropriate technical and organizational infrastructure to enable knowledge sharing". Broadbent (1997) defines it as "a form of expertise management which draws out tacit knowledge, making it accessible for specific purposes to improve the Knowledge Management".

A "knowledge-intensive" organization refers to an organization where most work is of intellectual in nature and where well-educated, qualified employees form the major part of theworkforce (Alvesson, 2001). Typical examples include law firms, accounting firms, management consulting firms, software engineering companies, research and development companies, and other high-tech organizations. Although, NGOs are notknowledge intensive, arecent article of Capozzi, Lowell, and Silverman, L. (2003)

suggests, "Philanthropic foundations are knowledge-intensive bodies". According to this definition, it isevident that NGOs – which often employ professionals such as psychologists, counselors, health-care professionals, and educational specialists – are also knowledge-intensive bodies. One of the key requirements in identifying a knowledge- intensive organization is its relianceon human capital and knowledge as being a source of competitive advantage, where knowledgehas more importance than other inputs such as physical or financial capital (Starbuck,1992). According to Bontis (1998), a knowledge-intensive organization utilizes the humancapital as a source of innovation and strategy formulation. Swart (2003) defines "knowledge- intensive organizations in terms of theiremphasis on the nature and quality of their highly skilled human capital to create value in work related processes using knowledge". Improving services by deploying knowledge comprising innovative ideas and initiatives leading to overall competence building. This implies that employee skills are central to the creation of a competitive advantage and to the survival of the organization when market conditions are tough(Swart and Kinnie, 2003).

Models of Knowledge Management

Knowledge management framework is a sequence of activities designed with for specific output. These activities are put together in a framework to produce desired result, which should be aligned with organizational strategies and goals that gives an advantage over and above the competitors. Chih-Ping (2002) proposed a framework by integrating three aspects i.e. knowledge resources, knowledge management activities, and knowledge influences. The knowledge management framework is very much required for an organization to implement knowledge management. It gives guidance and direction to prevent mistakes and receive benefit regarding time, cost and effort. Knowledge Management framework shared by Leonard-Barton in 1995 elaborated about four pillars of building knowledge activities which are important for any knowledge-based organization. However,Wiig (1997) proposed a model with three pillars representing knowledge creation, use and transfer. Hence, KM is a frameworkfor designing an organization's very being, existence and sustenance so that the organization can use what it knows to learn and to create economic and social value for its customers and community. Various models on knowledge management is discussed through in-depth literature review, which will help to formulate a comprehensive knowledge management model, which can be applied on any industry.

Boisot's Knowledge Category Model

This model is based on relation between data and information developed by Boisot in 1987. The informationis extracted from data based on the experience of an individual. The effectiveness of information largely depends on codification/language of the same. It should beunderstandable by both the sender and the receiver and also the context in which it has been codified. Boisoti- space model proposes a 3 dimensional cube with 3 dimensions as Coded & Un coded, Abstract & Concrete and diffused & undiffused. Codification comprises of categorized content. The content is said to be properly codified when there are less number of categories. The more the content is codified the more it is conceptual, clear and easy to understand. Generally, many times the context of important knowledge is lost during the process of codification. Effectively this model connects data, information, content and knowledge. This model is different than other models and links organizational knowledge and social learning cycle. However, this is not the widely used and acceptable modelacross the industry. Factors considered in this model are experienced individual, codification, content and socialization.

Nonaka's Knowledge Management Model

Nonaka's knowledge management model developed by Nonaka & Takeuchi in 1995,is based on tacit knowledge oriented approach. This model believes in oriental culture, where knowledge is found in groups. It makes knowledge easy to covert, share and transfer. They felt the necessity to merge both oriental and western culture in order to get a mix cultured model. Knowledge creation begins always at the individual level. Starting from this personal knowledge, mostly tacit, will leads to organizational knowledge. The creation of organizational knowledge represents the amplification of individual knowledge and its transformation into general applied knowledge. It is also called as SECI or Spiral or knowledge conversion model. The knowledge shared directly thorough social interactions is called socialization. However, the knowledge being tacit at this stage which is in simplest form. This knowledge is generally neither written nor stored and rather remains in experience. It can be transmitted easily by normal knowledge exchange.

Once the idea and/or tacit knowledge is exchanged it is converted to explicit knowledge. This process is called process of knowledge externalization. The externalized knowledge become tangible and permanent by content management application where it can be created, managed, updated, shared, searched and published in digital format. The onlychallenge during this transformation is losing of information during conversion from tacit to explicit. During

next phase of knowledge conversion from explicit to explicit is combination. In combination process small pieces of information obtained as knowledge are stored systematically in Knowledge management system. The laststage of knowledge conversion is Internalization i.e. from explicit to tacit. This conversion is realized by implementation of explicit knowledge through process of learning by practice. This relates to extension/integration of our knowledge and experience and reformulate. The internalized knowledge is useful to organization when Knowledge, experiences, best practices, learned lessons are passed through the conversion process and it becomes shareable.

The factors considered in this model are Organization Intention, Individual Autonomy, Interaction between organization and external environment, redundant knowledge and variety of knowledge. Other factors are Internalization, Individual, Group, and Organization. Hedlund and Nonaka's Knowledge ManagementModel According to this model, the knowledge creation process ismore complex than it was explained in Nonaka's model. The approach of this model describes about categorization of knowledge carriers and the type of knowledge. Thecarriers are classified as individual, group, organization and inter organization whereas the type of knowledge is articulated and tacit knowledge. This is the advancementof the previous Nonaka's model where they discuss about the impact of this factor on the overall organizational strategies.

Skandia Intellectual Capital Model of KnowledgeManagement

Knowledge management was not only seen as the transfer of tacit and explicit knowledge, but it has also been arguedas intellectual capital (Chase, 1997; and Roos and Roos, 1997). Knowledge management is also looked upon as an intellectual capital. This model considers human as capital which possess experience, know-how, skill and capability. Apart from human even structure like network, system, culture etc. and relation with stake holders as part of intellectual capital. Generally, there is no measurementmodel for such capital unlike those of assets that can be measured and tracked in book of accounting. These are theintangible capital assets and plays a vital role in providing competitive advantage to an organization.

Demerits Knowledge Management Model

Demerest's knowledge management model focus on knowledge created socially and then disseminated within the organization also socially. Finally, knowledge is used economically to give organizational result. This model transfer's knowledge quiet practically through learning by action. It covers scientific and social directions in knowledge base creation.This

models benefits both employee and organization. By the support of employee and other stakeholders of organization, knowledge management is associated with the emerging social paradigm while at the same time contributing to the current paradigm. Factors considered in this model arelearning, socialization, employee, organization structure.

Frid's Knowledge Management Model

According to Frid's (2003), knowledge management framework is divided into five phases, where it starts from knowledge chaotic situation to knowledge centric, asset based organization. Initially at the beginning, everyorganization has no direction of knowledge management.

It starts with knowledge vision and objectives based on organizational strategies. Post that it moves to a phase of knowledge awareness by arrives to a road map till the department level. This makes the organization knowledge focused and plans for knowledge management infrastructure, approach, monitoring and reporting. Once the organization becomes knowledge focused, it starts withits improvements, performance reviews and measures the advantage ofthe same as per business plan. Finally, organization becomes knowledge centric by institutionalizing successful initiatives and valuing intellectual assets.

Stankosky and Baldanza's KnowledgeManagement Framework

Stankosky and Baldanza (2001) developed a knowledge management framework which addresses enabling factors such as learning, culture, leadership, organization and technology. This framework presents that knowledge management encompasses a wide range of disciplines that include cognitive science, communication, individual and organizational behavior, psychology, finance, economics, human resource, management, strategic planning, system thinking, process reengineering, system engineering, computer technologies and software and library science.

Applied Model for Knowledge Management

Applied model of knowledge management imply action: provide insight into developing action plans that result in the transfer of knowledge among and between employees and organizations. It is assumed that technology plays a key role in the processes involved in knowledge management. A broader view looks at knowledge management requirements from three perspectives i.e. Information-based, Technology-based and Culture-based (Alavi and Leidner, 2001).

Leavitt's Model of Organizational Change:Developing A KM Culture

Leavitt's (1965) model of organizational change management is also called as Leavitt's

diamond or change equilibrium model. It is a framework of four organizations elements namelytechnology, structure, people and task. Leavitt's model suggests that all four elements of diamond shaped model must be equally balanced and coordinated to create an effective knowledge management culture.

Hence, the above discussed nine knowledgemanagement models are widely used and discussed in literature as far as knowledge management concept and its implementation is concerned. Therefore, these models are studied to draw a comprehensive framework of knowledgemanagement with reference to IT industry.

Implementation of KnowledgeManagement

According to Hanson, Nohria, and Tjernay (1999), approaches to Knowledge Management implementation includes:

A Codification strategy – Where knowledge is carefully codified and stored in databases so that it can be accessed and easily used by anyone in the company.

A Personalization strategy – Where knowledge is transferred through direct contact by the person whodevelops or owns it. The aim of this approach is to disseminate the knowledge across the organization rather than to store it.

Conceptual Framework

Knowledge and knowledge management is an escalatinginterest to both practitioners within organizations and to researchers. Knowledge management is becoming a core competence that companies must develop in order to succeed in tomorrow's dynamic global economy (Skyrme and Amidon, 1998). Today not only large corporations andmedium to small scale small business enterprises, but eventhe educational institutions leverage the knowledgeto deliver efficiently. The management needs to accept and understand that value of human knowledge and resources and put efforts to retain the same.

Table 1: Research Variables for Implementation

IndependentVariable	Source	DependentVariable
OrganizationalCulture	Davenport and Pursak(2000)	Successful Implementati on of Knowledge Management
Organizational Structure	Gupta, Iyer and J. E. Aronson (2000)	
Strategy and Leadership	Chong and Choi (2005)	
Human Resource	McDermott (1999)	
Information Technology	Davenport et.al. (1998)	

In order to become competitive enough in today's IT market, IT organizations have to reduce cost and turnaround time of projects maintaining the same qualityof deliverables. So,

Knowledge management is equallyimportant for the IT industry to sustain in the market and satisfy the customer. The Lessons learnt from the past has demonstrated that reusing and knowledge sharing between IT professionals enhances completion of IT projects successfully and in reduced cost and time and also solves the problems related to the projects. Many KM models currently used in the IT industry may not fit in some or theother situations and cannot be used efficiently andeffectively. This study presents a new Knowledge Management model that combines many of the recent research outputs from IT domain and best practices ofother industries. The proposed model presents the essential Knowledge Management activities and features broken down into more manageable parts that are easy to understand and use, which simplifies the understanding of the sources of knowledge, the inputs and outputs, the flow of knowledge and the identification of other variables such as the cultural effects on the organizational knowledge.

A review of Knowledge Management literature is conducted from technical, cultural and managementperspective to understand and review the current practices of KM in the IT industry.

The problems which affect the successful implementation and it's application are discussed which helps evaluation of KM existing models and principles.

A new KM model proposed will be a strategic and holistic approach to develop and implement KM in IT organizations. This can be achieved by capturingsuggestions and ideas of employees related to IT delivery and operations. This will help IT organizations to improve their existing systems.

To provide a guideline that will not only help organizations in successful implementation and application of KM in IT Industry, but also in identifying KM processes, tools, procedures and resources.

To provide recommendations for the future development of KM implementation and application at both organizational and industrial levels within the IT industry.

After extensive study of literature, in order to identify critical success factors of knowledge management and according to the previous investigations from 1997 to 2010within the organizations, five variables were identified for successful implementation of knowledge management as mentioned in table.

Knowledge Management ImplementationModel

The following are basic aspects of model:

Compatibility: Knowledge management requires both a shared language and a good fit with concepts that already exist in the organization, such as Total Quality Management or Business Process Reengineering.

Problem Orientation: Knowledge management apart from being theoretical should also provide practical solution to the problems and its usefulness.

Comprehensibility. The company must choose terms and ideas of knowledge management that are relevant to its success and readily understood across the company.

Action Orientation. Analyses in the field of knowledge management should enable managers to evaluate the impact of their instruments on the organizational knowledge base and should lead tofocused action.

Appropriate Instruments. Focused interventionsneed proven instruments. The final goal ofa knowledge management concept is to provide a range of such instruments.

A number of models of knowledge management could meet the above standards. While there is no single "right" model of knowledge management, the proposed KM model consists of four-layer components as shown in figure.

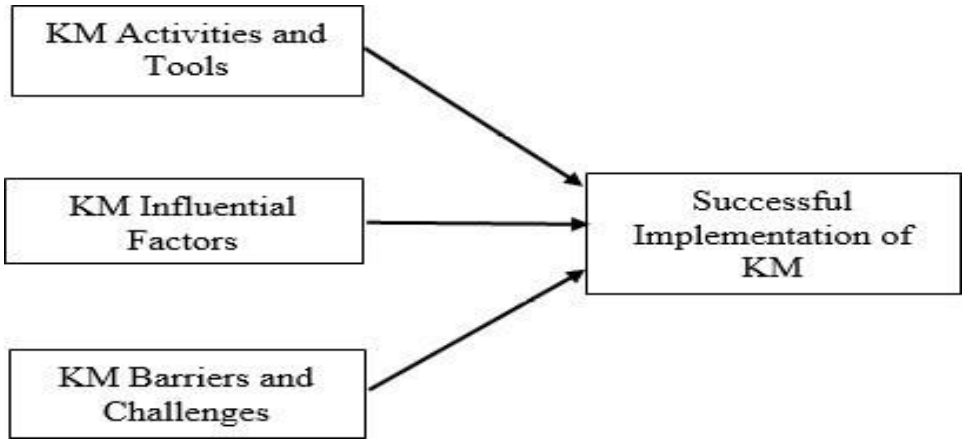

Figure: Knowledge Management ImplementationModel

The proposed knowledge management implementation model suggests a detailedstructured procedure for the knowledge management implementation activities.

CONCLUSION

KM brings together multi-disciplinary practices, and its implementation requires a systematic approach to organizational development. Whilst existing literature acknowledgesthat KM goes beyond technology, the organizational mechanisms that make effective KM

happenremain under-researched. By conceptually developing the KM construct consisting of the five component factors, this paper conveys an important message that effective KM implementation requires an organization systematically develop an technological environment, but most importantly, promote a culture that favors knowledge sharing and receptivity as well as enhance knowledge absorptive capacity. This KM construct can be used by researchers and company executives to guide future KM research and practice. The findings of this study provide several opportunities for future research. The framework may be used as a stepping stone for further empirical research on knowledge management. The construct can be empirically validated in future research and can be used by the IT companies and other industries as well, to implementKM.

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