CHAPTER – I
INTRODUCTION TO KNOWLEDGE MANAGEMENT

1.1 Introduction:

Knowledge is a process of understanding of information, facts, skills through learning, experience or discovering and is of two types (i) Tacit Knowledge (ii) Explicit Knowledge. Davenport and Prusak\(^1\) (1998) stated that “Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a frame work for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knower” and Peter F. Drucker\(^2\) stated that “Knowledge is information that changes something or somebody—either by becoming grounds for actions, or by making an individual (or an institution) capable of different or more effective action.” - in The New Realities. The word Knowledge and the process of Knowledge Management (KM) have always been attributed as important factors for human performance and have been defined by Daven Port et al (1998)\(^3\) as “a high value form of information that is ready in place to apply for decision making support system”. Organizations and businesses across the world have increasingly become information and knowledge hunters and farmers to ensure they maintain a competitive advantage. Usage of latest and emerging technologies to capture, store, and share, use and archive knowledge improves the organizations’ business activities and provides them the required advantage. This leads to higher levels of productivity and much needed profitability.

As per Peter F Drucker\(^4\) (1999) “knowledge worker’s productivity is the biggest 21st century management challenge. The survival requirement of any developed country is Knowledge worker’s productivity. In no other way can the
developed countries hope to maintain themselves let alone to maintain their leadership and their standards of living”.

A full-fledged Knowledge Management system if implemented in the right perspective can be a backbone of any organization and also can emerge as a very effective system not only to manage organizational information, but also serves as a repository for learning and quick induction of employees in organization culture. It involves people, process and technology and works with business and support functions in the organizations. Effective information reuse policy with metrics has proved that the organizations which have Knowledge Management system as a DNA save 30 to 35 percent of their time and money by supplying readymade data and increasing the effectiveness of their employees. The strategies of knowledge management in organizations can be varied and intricate. It can be noted that all the real world features cannot be replicated in a simulation model at least in social sciences. As part of the strategy of effective knowledge management system is diffusion blocking- In this strategy the organizations can take up a process or strategy aimed to block the dissemination of knowledge once the same has been abstracted and codified. The other aspect is level of structuring at which they want to use the available knowledge. Usage of highly structured and streamlined knowledge makes it easier to share and collaborate but has its own negative aspects of knowledge leakages or loss and hence it becomes difficult to bring out value from it. In many cases the probability of knowledge dissemination depends on the level of organization structuring.

With the competition increasing more information available, organizations across the globe continue to search for improved and alternate ways to enhance business performance. However, with little or nil progress in innovation as a
strategy, cost effective and quality management initiatives as prime factors in the past have driven businesses to obtain new thought process into not so recognized yet complex needed mechanisms such as Knowledge Management system which showcases enterprises capabilities.

Organizations to enhance capabilities have started understanding that Knowledge Management as a concept is no more just a “good to have a concept” but is visualized as a key activity and covers most of the enterprise’s initiatives. Organizations priorities and strategies interconnect or lock these with their goals or Key result Areas (KRA) to manage intellectual or logical capital and the knowledge processes that is aligned. The evolution of Knowledge Management system has proved that knowledge is the major force behind the “economics of ideas”, and can see more importance in creation of Knowledge , discovery, organization, application and realization and will continue to be main focus for most of the organizations as part of developing the existing knowledge management system or implementation of Knowledge management system .The capability to reuse proves an invaluable differentiator and therefore becomes imperative to have right knowledge at right time at right person’s disposal. However, ensuring a strong corporate strategy and in-depth understanding of where, how and in what forms the knowledge exists in an organization (includes the knowledge flow and more importantly the knowledge sharing culture that is encouraged and supported by the organizations’ members).

The main thought of Knowledge Management Systems is always to make the organizational knowledge sharable among various employees. Knowledge management system arranges and facilitates the availability of information through knowledge engineering or technology. Since knowledge assets have a social context, deriving useful inferences from them by placing them in wider arena with multiple
cross references and thus converting information into knowledge or creating new knowledge always depends on the user and another purpose of knowledge management systems in large organizations is creating a pool of subject matter experts and communities of experienced leaders sharing their valuable experiences. Knowledge Management system acts as a bridge between diverse functions of the organizations, in the process of creating knowledge and making knowledgeable resources as a part in knowledge sharing activities.

The important essence of Knowledge Management system is that Knowledge should be retrievable as and when required irrespective of geographical constraints. This Fusion of knowledge formation and dispersion, enable business performance and economic growth in an economy. A proper knowledge management system is required to formulate appropriate tactical action plans to nurture Knowledge Management environment (Creation, sharing and Use). In the current scheme of highly connected world, internal practices are not the only ones that matter, at times they are not even most prominent. The mode and agility with which knowledge is shared across has growing prominence in the modern times. Management of incoming and outgoing knowledge flows has to be treated on par with internal knowledge flows.

For the past few years Strategic Knowledge Management has been part of many discussions with different viewpoints; however it was usually at intra-organizational level. There is a vital tradition in management philosophy on strategic alliances which takes into account knowledge as a key factor and a growing apprehension about knowledge spillovers in economic and management texts. On the other hand in the conventional knowledge management literature the significance has been on the processes related to knowledge that flows within the organization. Not much significance was given to knowledge flows involving multiple organizations. In
fact there is, a gap in the supra-organizational standpoint of knowledge management system, which is critical for the analysis of the effect of strategic choices related to knowledge in the progress of industrial sectors or regional economies.

Theoretical aspects like corporate demography and organizational ecology give a different perspective to that view, replacing the group of organizations in an industrial segment or region for the individual organization as a standpoint, hence an organization can now look at the knowledge management strategies within a group of organizations instead of KM strategy of single organization, the downside being its restricts the level of detail information though it provides interesting opportunities as structured knowledge. Scenarios where knowledge creation and dissemination depends more in group of organizational in a segment or a region, than that of individual organizations should be looked at as a concept which provides an option to study the synchronized operation of different strategies with in a group and it also permits an evolutionary outlook at a larger scale.

1.1.1 Concept of Information Management:

As per Gartner⁵, “Information Management (IM) is a method of using technology to collect process and condense information with a goal of efficient management”. Many big organisations have invested in a dedicated Information management unit and identified technology tools for managing the large information flow that is happening. The idea is that the technology tools must be capable of receiving information in a “top-down,” “bottom-up” or “middle-out” evolutionary manner.” Technology has not only gifted the life comforts, but also helped the civilization with volumes of information. With influx of such huge volumes of information, organizations felt the need to develop Information and information
management systems. Information Management was the subject of study and also a business opportunity among scholars and business houses in late nineties and early twenties. The technology advancement also enabled organizations’ perceptions about the business commercial value of information. Major part of the information was seen as a matter for further business therein came in the systems of storing and disseminating information. Technology is the key component for massaging and managing the information system and as a strategy the main technologies required were contained in a group of tools used for modelling that may have a production related important repository where the information is preserved and managed. The purpose of investing in the information management and the technologies was to make sure that the existing information is used to design, develop and manage with a” thought for innovation”. The structured information that comes out of these tools should also help as a support for decision making there by creating value for the organizations.

1.1.2 Concept of Knowledge management:

Going by the definition of Davenport and Prusak (1988)6 "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 knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms." Since the past few years, organisations have always tried to manage the knowledge gained through various experiences as best as it could. It is the changing business dynamics that mandated the organisations to identify new processes, methods and strategies and introduction of technology which provided new tools which enabled a paradigm shift about
knowledge management between individuals, teams, organizations. It is realised that there are alternate and radical ways to accelerate learning and knowledge processes. It is during the early 1990's organizations started to think more about the knowledge processes of identifying, creating, storing, sharing and applying knowledge. Some prominent authors defined Knowledge Management as below;

- John Girard & JoAnn Girard\(^7\) (2015) “Knowledge management is the creation, transfer, and exchange of organizational knowledge to achieve a [competitive] advantage”.

- Kimiz Dalkir\(^8\) (2011) “Knowledge management is the deliberate and systematic coordination of an organization’s people, technology, processes, and organizational structure in order to add value through reuse and innovation. This is achieved through the promotion of creating, sharing, and applying knowledge as well as through the feeding of valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning”.

- Ron Young, et, al (2003)\(^9\) “Knowledge Management is the discipline to enable individuals, teams, organizations and communities, more collectively and systematically capture, store, share and apply their knowledge, to achieve their objectives”.

- David Skyrme (2010)\(^10\) “Knowledge Management the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing diffusion, use and exploitation”.

- Alan Frost \(^11\) (2010): “Knowledge management is the systematic management of an organization’s knowledge assets for the purpose of creating value and meeting tactical & strategic requirements; it consists of the initiatives,
processes, strategies, and systems that sustain and enhance the storage, assessment, sharing, refinement, and creation of knowledge”.

Knowledge management (KM) should not be implemented in an organisation as an act of compliance& discipline but should be integrated with day to day activities of employees. Knowledge Management programs should be typically integrated with organisational goals like performance improvement, competitive edge, innovative practices and best practices identified with in projects, and the general enhancement of knowledge through collaborative approach. Knowledge Management has always been treated as part of learning activity or learning group even though neither of the two activities has ever encompassed the other. Knowledge Management as an initiative has to be or may be separately identified from learning activity by having a greater focus on identified knowledge assets by ways and means of platform through which the development and cultivation of knowledge would take place. It is in this context that enterprise content management and document management systems have achieved their significance as part of Knowledge management. The development of knowledge management as an active practice in businesses has its roots in the solutions for handling and managing information and content.

1.1.3 Role and importance of Content in KM:

Content is the subject matter contained in any document. It is the content which helps categorize a plain paper into a document. Content cannot exist by itself; it needs a container, and a physical space to reside. A document without any content can still exist, but will be called a plain piece of paper. View is that both content and document are interdependent on each other. Term document is an easy connector with respect to Knowledge Management. Moreover, content typically in organizations,
means organizations` business capability and service offerings on their websites and other marketing collaterals. Content can be looked as the essential component of explicit knowledge. Over a period of time, knowledge industry has evolved and broadened the definition of content as existing in all kinds of physical formats including digital formats like, text files, wikis, spreadsheets video and audio tapes. Each of these formats carries valuable content varying in nature and degree. It depends on the nature of the organization to decide the preference for a type of document. Knowledge Management process emphasizes a very clear difference between the three components content/data, information and knowledge. KM strategies are constantly evolving to convert tacit knowledge into explicit knowledge. Content is the key aspect of tacit knowledge has a thus converted, again is stored in physical or digital formats called documents. Hence as stated earlier content and document are interdependent and both are important components for Knowledge Management.

1.1.4 Data, Information and the nature of Documents

In the context of knowledge management, a very clear understanding of content / data, information and knowledge is essential for any organization as each one has its own processes and method of capturing sharing and reuse. Data is the raw material and is also a physical arrangement of numbers carrying signals. Devoid of any contextual value, data is inadequate for a meaningful transaction. Information is the cognitive arrangement of those signals. Data becomes information when it is supported by a context in a social environment. One level up, it transforms into knowledge when it provides the environment for constructive analysis and enables users to take decisions. Knowledge arises out of a belief system on the physical arrangement of cognitive signals. This theory puts the onus of acquiring knowledge or
converting information into knowledge on the users wherein data and information serve as raw material.

Documents are unique and complex in nature, since their referential and social contexts are multiple and often irreplaceable. Here the word irreplaceable is used in a limited context for example ancient historical documents pertaining to Moghul period or British period or the letters written by Jawaharlal Nehru from jail to his daughter Indira Priyadarshini, and several such precious documents which tell amazing stories about the freedom struggle. Content in newspapers as a document has no uniqueness and their shelf life is very limited. Content in technical documents can be replicated into any other type of digital formats. This difference between content/data, information, knowledge and wisdom is very clearly explained with an example of Railway timetables by Swan, Newell and Galliers. A Railway time table is a compilation of data. The announcement of train arrivals and departure at railway platforms is information. Passengers understanding and analysis that first train leaving a station will not be the first to reach destination is knowledge. Their decision accordingly, to choose a faster train to reach their destination is wisdom.

1.1.5 Role and importance of Documents in KM:

With the changing scenarios of business, driven by market and competitive demands, the content’s definition has broadened and includes technical and digital formats like audio video tapes, spreadsheets. Variety of documents from marketing material to research thesis, newspaper to textbooks, operating manuals to routine service agreements all form an important part of knowledge management as documents. All these kinds of documents have a unique purpose as they contain information for assimilation and reuse. Documents that create a huge database,
referred as Capital below, in organizations are divided in three broad categories (i) Documents pertaining to employee experience, intellect and insight – Human Capital; (ii) Documents pertaining to – Organizations’ policies, governance and communication – Structural Capital and (iii) Documents pertaining to - Organizations’ interactions with customers, stakeholders, and alliance partners – Relational Capital. Basically all three categories contain content, varying from each other in size, style and nature and preserved as documents or databases of information. A systematic arrangement of these with required inputs creates structured databases, which can be used for making significant decisions for innovation and business transformation. Example: Human Capital for learning and development initiatives of employees, Structural capital for framing policies, bringing in discipline and control and Relational Capital for business growth, new market and product discoveries aiming at business transformation. We see that the Knowledge assets or documents are not isolated pieces of work, but the social context, mentioned above, links it with multiple related references in the form of footnotes, explanatory notes and linking other authors and other works.

Organizations create, codify and disseminate documents for training and development of employees. Quick Service Restaurant giant Mc Donald’s operating manuals are so comprehensive that they encompass all aspects of cooking to hotel management. Such extensive details are used to impart the required know how to employees and increase their efficiency. The above aspects of role of documents have also been referred in many articles by prominent authors like Cahrles Despresetal13 (1997). Every minute details pertaining to daily work of employees are documented in Pharma Industry. Both laboratory and desk operations thus documented, construct a huge repository of information. The repository is leveraged to improve and augment
learning and development of employees. Continuous updating the repository serves as a ready reference for employee development programs. Employee’s expertise, experience and insight is used in specific contexts. An interesting perspective is the combination of data and information used as tacit knowledge and is converted to explicit knowledge through documentation in the overall process.

It is important to note that it is content which decides the type of document and its reusability. Each type of document is different from the other in content, size and genre depending on their use and value. Explicit knowledge documents’ meaningfulness and value is acquired with their reference and alliance with the existing bank of documents. Knowledge documents are layered with many reference and contexts unfolding a story to connect with the past or present. Organizations’ journey can be traced in a plethora of documents with multitudes of transactions with other entities. The history of transactions related to business, services, service providers and client partners can be had by juxtaposing some of the artefacts with similar contexts. Documents role is further extended in conveying organizations’ future vision and strategy representing some information. Another importance which may be attributed to documents in Knowledge Management is the finding of new knowledge. In the process of creating a document, author may come across a new idea. The element of serendipity leads to the birth of an innovative idea or product. Another very interesting perception to look at the role of documents in Knowledge Management is that of controlling agents as mentioned in the article “Scrolling Forward” (Levy, D. M14).

Organizations are trying to secure information regarding their employees and accordingly filling necessary forms in the organizations which is like a conversation with faceless entity. Giving out all the personal information through forms and
documents is like empowering the entity to exercise control on employees. In certain situations, it might have a reverse impact. Instead of collaboration and moving forward, the negative impact could be of control and stagnation. Types of documents from marketing material to routine service agreements, news clippings to operating all form an important part of information or documents. All these kinds of documents have a unique purpose as they contain information for assimilation and reuse. Creation of a document is a knowledgeable act in itself because of the multiple transactions it involves. It can be seen that all documents’ meaningfulness and utility can be established in a social context as well, hence the collaboration and bonhomie that takes place in the process of creating a document is an added advantage to Organizations having a structured knowledge management system. Such alliances of documenting knowledge gradually grow into networks and communities discussing and sharing valuable information. Understanding objective, meaning and context, sharing inputs, layering text with their insights and creating a document is a huge learning opportunity as well, improving individual capability while creating document. Hence document’s role and importance in Knowledge management is quite huge and complex. Categorizing them strictly as data or information is undermining their powerful position to ordinary paper pieces. Going beyond their physical nature, deconstruct their form, style and language, we find documents are potential tools for communicating organizations’ evolution, presenting business transactions and future expansion plans. Understanding the role of documents in knowledge management is essential as finding knowledge from documents depends on the user’s expertise. Documents, though carrying social contexts, are self-sufficient artefacts but waiting to be read, deconstructed, analyzed for innovation and business transformation. As documents play a very important role in Knowledge Management it is important to
understand what a document management system is all about. Document management system is a computer system that helps keep track and enable storage electronically scanned or created documents or images of any mode of documents. Coming to the levels of document management system it can be said that there are many levels covering taxonomy and life cycle management of the document. There are several aspects of documents in document management system like

- The category of documents and the content type that can be created in an organization.
- Kind of templates should be made available for each category of document?
- What kind of metadata should be made available for each category of document?
- The right place to store a document at different stages of life cycle.
- How an access control should be created for a document at each stage cycle.
- How to make documents available within the organization as team members contribute to create and publish activity of documents.
- What policies should be applied to documents for proper auditing to retain or disposed of properly with content protection.
- Conversion of document to different formats on need basis
- What guidelines should be made for treating the documents as corporate records, according to legal procedures?
There are several advantages of Document management system

- Easy Retrieval
- Proper Indexing
- Better, faster and flexible search
- Improvised document distribution
- Enhanced security
- Disaster Recovery on need basis
- No fear of losing data files
- Data Archiving electronically
- Enhancement in Compliance
- Space usage for Storage is structured and saved
- Enhancement of Internal Operational performance
- Improved customer satisfaction and industry shareholding.
- Protect - Organizational Knowledge

1.1.6 Types of Knowledge in Knowledge Management

To understand what Knowledge Management better it is good to have clarity on the types of knowledge that are created, discovered, applied, and archived within
organizational business contexts. For example, it should be fairly clear that the knowledge prepared in a document should be properly managed which means it needs to be stored, retrieved when needed, shared as needed and should be changed or versioned in a totally different way than that has been produced over the past few years by the experts. This is termed as Explicit Knowledge. **Explicit knowledge** implies the knowledge that has been showcased i.e. knowledge that is cognizant to the knowledge conveyor. Being expressive type of knowledge it is not an issue for the worker to tell about tenets and aspects that have been learnt. Many of the times the knowledge is accessible through books. The most imperative viewpoints are that Explicit or unequivocal knowledge can be outlined or showcased by utilizing tools like Knowledge Map. Such an instrument is useful in passing on the knowledge from workers resigning from the organization to the new employees replacing them.

![Figure 2 Sample Simplified Knowledge map](image)

In distinction to the reasonably available information which can be easily accessed, **implicit knowledge** is understood to be difficult to reveal, however it can still be looked at a possible record. Normally the knowledge based workers cannot retrieve this knowledge on their own as the information would always seem quite
obvious. When people are questioned, what they are doing in the morning, the answers might be like a sequential response such as got up in the morning then having a shower, eventually followed by having a coffee and then going to work etc as these are obvious routine activities without imagining about the activities like changing the dress to take a shower and the process to be followed in making coffee the having had to switch on the computer for reading e-mails as these are thought to be implied or obvious answers. It is possible to transform the implicit knowledge into mode of explicit knowledge through a proper documentation process.

**Tacit knowledge**, is the most hard to review and, hence, to exchange. Implicit knowledge incorporates knowledge about themes, for example, how to ride a bike or how to talk. These cases depict knowledge everyone simply has. Be that as it may, each individual has a great deal of implied knowledge. Representatives, for instance, implicitly know how they convince other individuals, how to carry on in various circumstances, or how to compose a meeting. Such knowledge can't be totally clarified, since it is totally soaked up in the person through practice and wide encounter which is communicated through an exceptionally capable execution and is regularly transmitted by apprenticeship display through watching and executing as types of learning. Implicit knowledge can be watched; in any case, it is dicey that the greater part of this knowledge can be changed over to unequivocal knowledge. This reality is the reason it is said, "We know more than we realize that we know."
1.2 Knowledge Management Practices at Global perspective

Knowledge transfer and knowledge retention techniques down the ages have and continue to be a crucial factor to the evolution, growth and sustenance of knowledge management activities in organizations worldwide.

From the late 1990s the knowledge management space has seen contributions from global researchers and gurus such as Peter Drucker\(^{15}\) (1994), Karl Wigg\(^ {16}\) (1993), David Snowden\(^ {17}\), David Skyrme\(^ {18}\), Stephen Denning\(^ {19}\), Nonaka Taekuchi\(^ {20}\), Max. H. Boisot\(^ {21}\) etc. Each one contributed to the immense knowledge of knowledge management as a subject. While some contributed to the technical aspects of KM the others shared their experiences and insights of the practice of knowledge management within organizations and related processes. They were also instrumental in shaping
the best knowledge management frameworks, Karl Wiig (1999) 22 Knowledge management is better understood when it is applied to different aspect of business and gets embedded into tasks and activities in the business. This directly causes generation of new knowledge that provides opportunities for cross pollination of this knowledge in different business contexts. This perhaps is the best possible outcome of knowledge management. An ideal futuristic scenario would be when knowledge management is so practiced and embedded deeply into business practices that it becomes almost invisible. But, this perhaps would be easier said than done given the current day usage and application.

The invention of personal computer in 1980s brought the much required enthusiasm and opportunity for proliferation of knowledge management. Managers were able to use the available local machines and computing power and manage their unstructured data and other types of information as needed. The year 1980s onwards positive thought process towards information and the information related systems have been brought under the gamut of strategic information systems department in the organization. The main issues that were focused on were effectiveness of organization in performance and deployment within the system and competitive edge. The main interest of all these systems was still getting or generating information. The thought process was on how to make better or structure information available to customers and how to make the practices more transparent? How to discover and realize the data to gather strategic and critical information to better perform?
David Skyrme summarized the evolution on following lines:

![Diagram of KM evolution](image)

Figure 4 - Evolution of KM as per David Skyrme

The 1980 era saw the emergence of the Internet and other technologies as major catalysts that provided a powerful mechanism for efficiently getting access to qualitative information using multimedia also as one of the channel. However, in a time where responsiveness to market opportunities (and threats) is critical, technology has helped in facilitating data and information abundance. But does this get the required attention of the corporate and its management. It needs to be evaluated as to how many of these repositories are useful?

In a normal scenario data is classified and summarized and gets corrected so as to become value added information in a particular context. When the value of such information, started getting realized it was coined as knowledge assets. Another interesting term coined by Mr. Drucker was – “knowledge worker who are employees having a deep background in education and experience and are considered as people who think for a living”. These workers are present across all industries including the information technology sectors. With the kind of the work these workers perform and the value they bring to the table, qualifies as the most critical and special knowledge asset to the organization. Technological advances and availability of
platforms enabled the collation of knowledge from across the organization and was accessible to employees within the organization. It was a mechanical task and has been facilitated with aspects like storage of information, processing of information, and communication technologies that can be used. Knowledge has the highest value and has lot of relevance to organizational decisions and actions, within different business context. It is felt that Knowledge in any form or shape is difficult to manage as it gets generated in the minds of people and gets applied in the minds of people. It is felt that knowledgeable people are always active in the creation of new knowledge and its application on continuous basis. Hence in an organizational perspective all new knowledge gets generated from people. Part of the knowledge is present in artifacts of processes, structure of information and technology that is being used in the organization. It is assumed that this information could exist in the organization in different forms and could even become the basis of competitive edge. For example making information available to their customers about the order or exact status as to where it is something that organizations like DHL and FedEx have been providing for years. In today’s context companies such as Amazon and Flipkart have taken the global and Indian world by storm. It is the ability of such companies to convert hitherto mechanical information into knowledge and apply that knowledge in the customer or consumer context that provides these organizations a sustained edge over their competition. The Globalization era is seen radically different from the earlier pre globalization era in many ways and thoughts. For example, George P. Huber (1984) 26 states that “the globalization era may be characterized by huge increasing complexity of work, knowledge stored and turbulence, which may have a direct impact in organizations for decision making, innovation, and use of information”. This new change is called as “knowledge based economy”, “networked oriented
economy”, “information age”, and “knowledge-based society” among many other labels (Bratianu C (2001)\textsuperscript{27}; Davenport and Pursak, (1997)\textsuperscript{28})

1.3 Knowledge Management in Indian Perspective

India perhaps is one such country that can boast of documented knowledge in the form of treatises of experience, expertise, examples, and learning from the ancient times. Some of the oldest forms of such documented knowledge from the Indian continent include religious texts such as the Bhagavad Geeta whose date of actual composition remains unresolved. But it is understood to have reached close to its final form in the early 4\textsuperscript{th} century AD during the early Gupta period. This book forms a part of a larger epic – the Mahabharata\textsuperscript{29}. This epic is also known to be the longest poem ever to have been documented. The epic is traditionally ascribed to the sage Vyasa who described history that led to the war of Kurukshetra between the Kauravas and the Pandavas. The epic is also said to describe the Guru-shishya tradition that traces all great teachers and their students of the Vedic times.

The Ramayana is another such epic that was documented in its final form during early 4\textsuperscript{th} century BC. Unlike the Mahabharata, the Ramayana documents not just the story of Rama and his consort Sita, Lakshmana, Bharata, Hanuman and Ravana but presents a narrative allegory of ancient Hindu sages. The Mahabharata by itself is an immense source of Information and Knowledge on all aspects of life like Politics, administration, astrology, management, cosmology, and mathematics. The knowledge in these texts served as a guiding principle to life in general. Essential mathematical concepts were a discovery by Arya bhatta who contributed the mathematical and astronomical treatise that was widely used by Indian mathematical literature and is referred to even in the modern times. Originating in prehistoric times,
Ayurveda or the traditional Hindu medicine can be found in the Atharvaveda that is one of the ancient Hindu Vedic scripts. Ayurveda finds mention during the Indus valley civilization and even earlier times. Two of the oldest seats of learning in India were Nalanda and Taxila that originated in the 5th century AD and 6th century BC respectively. While the ancient Ayurvedic healer Charvaka studied at Taxila, this seat of learning was well known because of its association with Chanakya who wrote the famous treatise - Arthashastra or the study of economics.

However, the traditional art of knowledge transfer and retention was destroyed gradually due to multiple factors like invasion by other races, natural disasters, and above all absence of a proper system of saving and storing. What existed as the main forms of learning by one and all in the ancient times have now come to be practiced by only a few. Diversity of knowledge assets, complex systems, cross pollination of cultures from across the globe etc have mitigated the usage of these ancient scriptures and practices. But, as seen Knowledge sharing has been present in India since ancient times. Informal means such as dance, drama, folklore and other kinds of story telling carried rich lessons of life and living. Mechanisms such as the Guru-Sishya practice of knowledge transfer from teacher to pupil through various formal and informal methods like story telling, dance, drama and vyakhyans (lectures) were practiced. Small groups and tribes facilitated knowledge transfer very well through the use of such methods. These methods became inadequate and challenges occurred as population grew and became sectorial in nature. These sectors then developed other methods and forms of formal learning and knowledge sharing.

1.4 KM in modern day India

Post the report that was published in 1988-1989 by “world development report on knowledge development” the topic that gained lime light for all the
prominent police make was knowledge based economy. In 2001, the K4D (Knowledge for Development) program held as a high-level policy forum was to share the knowledge strategies among major stakeholders from countries such as Brazil, India and China - who were treated to be “potential knowledge superpowers” representing almost world 45 percent population. It was at the same time that he Indian government was also working on a strategy on how to transform India into a knowledge superpower. Hence India was also showing interest to collaborate and explore the related issues that war also part of India’s agenda. By then India had been working on building a knowledge based economy and India has already made great start in pharma related activities, medical sciences and information technology. This motivated Indian Government with an increased interest along with Indian private sector to identify ways and means of raising the country’s growth rate basing on Knowledge economy model. This phase also helped creating and enhancing awareness in India that knowledge economy does not merely mean having strong Information Technology sector and high-tech industries but also domain centric organizations.

Government of India Planning Commission also produced a report in 2001 showcasing India as a Knowledge Superpower: “Strategy for Transformation that focused on IT and biotechnology and India Vision 2020 in 2002”. The then President of India, late Dr. A. P. J. Abdul Kalam’s (2002) strategy India 2020: “A Vision for the New Millennium” also stressed on the importance and of need knowledge based economy and many ways on how to facilitate India’s transition and transformation from an industry based economy to the knowledge economy. This created eagerness and want by the government and private sector players the need and necessity for a deep dive to study and understand India’s position in the world of Knowledge
Economy. World Bank has included India in their study of “Country Assistance Strategy” clearly indicating the importance of role of India in the world of Knowledge economy for the Bank’s operational activities while pursing in India.

With the changing scenarios of business, driven by market and competitive demands, organizations needed to manage large information. Knowledge management systems have emerged from a need to manage heavy inflow of information and also upon realization of the commercial value of information. While knowledge management is an advanced information system, due to lack of awareness and understanding about Knowledge Management many organizations and people narrow down their thought knowledge management is just a file or document management system. The use of artificial intelligence in knowledge management brings an exactly opposite perspective. Artificial intelligence technology is used to identify and link social contexts between documents, and to discover new knowledge. Identifying patterns and similarity in knowledge documents and classifying them in specific categories, all these functions are possible with the use of artificial intelligence.

1.5 Need for the Study

While reviewing the literature, the researcher found that there were very few proactive studies in this area of research. Furthermore, many authors have categorically mentioned that in most of the Indian organizations, Knowledge Management as an activity / department oriented in nature and they are implementing not in a full-fledged manner. The reason could be lack of awareness, which has triggered the researcher to undertake this as a thesis topic. As part of job, the researcher in his role as Global Head for Knowledge Management in Tech Mahindra (A Mahindra group company) has been part of government bodies like Confederation
of Indian Industry (CII) where he was part of task force to create awareness on KM in Indian organizations and bringing KM into mainstream of business. On this premise also the researcher selected this topic of current relevance and this current research on this topic would create some sort of practical awareness among practicing managers.

While partly knowledge management (KM) is an outgrowth of information administration and report management likewise covers different zones including man made brainpower called as Artificial intelligence (AI), knowledge-based frameworks, data innovation, human asset administration, groupware, hierarchical conduct and in particular building a steady culture for knowledge administration is 90% of the effort put in.

➢ Hence knowledge management has become one of the key strategic initiatives which covers all the mentioned areas in any business & may play a key role in improving the bottom-line (revenue / earnings) of the business which is what every business leader would like to look at for any strategic initiative. This is same for any sector of business like educational, hospitals, IT companies, manufacturing firms etc.

➢ Any company which has a proper knowledge management framework / model may definitely benefit in the competition as customer would like to have an assurance that the knowledge that has been acquired during the projects is not lost due to attrition (forced or induced) as the company has a good KM framework.

➢ Society or human clan in any sector may get equally benefited as KM model would help have data readily available in structured format which helps doing R&D in Health, Education and other sectors as well.
1.6 Objectives of the Study

➢ To study the awareness of Knowledge management (KM) system and the relevance of Knowledge Management department/practice in Select Service Sectors

➢ To study the awareness of Knowledge management (KM) system and the relevance of Knowledge Management department/practice in Select Manufacturing Sectors

➢ To study the process of Knowledge Management in Service (IT, Education, Banking and Insurance) and Manufacturing (Automotive, Cement and Power sector) sectors.

➢ To understand and analyze the Perception of the respondents on Knowledge Management in the respective organizations.

➢ To summarize and suggest a Knowledge Management approach methodology where ever it is necessary for improving the existing Knowledge management system or implementing a new Knowledge Management system for performance enhancement of employees and organization.

1.7 Methodology of the Study

1.7.1 Sample Design

The technique for choosing sample was primarily through the information published in newspapers, business magazines and digital media about the organizations which has large scale operations at multiple locations. The size of sample selected from service sector is 393 participants (Banking—161, Insurance 75, IT—119, Education—38) and Manufacturing sector is 350 (Automotive—135,
Oil and Gas—85, Nuclear plant—47, Cement- 83). The stratified sampling technique was used in selection of people as per their roles (CXO Management, Middle management, workers/ Lower management /field staff) in each sector as Knowledge management is still not a very familiar area of strategic initiative at all levels in organizations. The stratified sampling is a must as the availability of CXO level and middle management is a challenge and they are the prime drivers for any initiative like knowledge management. Hence the sampling has to be done very carefully based on the industry that we are focusing.

1.7.2 Primary data

The process of identifying primary data was through questionnaire & interview for most of the CXO management and Middle management, for the lower management/ field staff/ workers it was combination of questionnaire, interview and observation.

1.7.3 Secondary data:

The sources of secondary data are mainly journals, text books published on Knowledge management, white papers, research articles published related to Information management, content management & Knowledge Management, market based analytical reports like Gartner and KPMG & Web sites.

1.7.4 Statistical tools:

The statistical tool used is a simple percentage for analyzing the primary data.

1.8 Scope of the Study

➢ The Scope of the study limits to few identified sectors such as Manufacturing (Automotive, Cement, Oil &Gas, Solar power, Service sector(Education, Education,
Banking & insurance, Information Technology) which are based out of India which may or may not have foreign collaboration in the form of subsidiaries or partners.

➢ The scope would also be limited to understand the existing scenario of implemented Knowledge Management system (KMS) in the Service and Manufacturing sectors.

➢ This Scope would limit to understanding the different existing models of Knowledge management as a Framework, Methodology and their relevance to implementations and some challenges that may be faced and the merits there on.

➢ As the area of research is very Niche area and not very prominent in the Indian industry yet the scope of Participants in the survey would be limited to the CXO level of people, Middle management and workers/ lower management/ filed staff where ever possible, who would have an Idea of what Knowledge Management is and should be. Respondents other than CXO level & Middle management would be mere respondents to just identify their awareness.

➢ The mode of data collection primary data and mostly secondary data through magazines, journals, books and white papers, websites, Analytical reports as published by renowned practitioners, authors of Knowledge Management.

1.9 Limitations of the Study

➢ This research would limit only to arriving at a platform/technology agonistic frame work and help the organization / society to derive a benefit. It will not always guarantee that implementation would directly give a $ / Rupee benefit.

➢ Most of the times KM would result in an intangible benefit like, efforts save, significant data available for doing quick research hence this research would
only help find out how KM can be a benefit if followed properly and needs and necessities for having a good KM model.

➢ It very much depends on the how much is the senior management committed to implement such strategic initiative. Hence it’s situational variable and has many dependencies.

The effectiveness / direct applicability of the collected data depends on the people taking part and their understanding of knowledge management definition.