CHAPTER II

REVIEW OF LITERATURE

2.1 INTRODUCTION

An attempt has been made by the researcher to study the literature pertaining to the topic to draw a deeper insight into the concept. A review of related literature would help the researcher in understanding the contributions made by others and in creating a link to the chosen topic. Accordingly the researcher reviewed the popular studies contributed by other researchers. This has helped the researcher to identify the contributions and the research gap which facilitated in designing the frame work of the study and in the formulation of the questionnaire.

2.2 KNOWLEDGE MANAGEMENT TOOLS AND TECHNIQUES

Knowledge capture and knowledge transfer are the primary functions of knowledge management. In this part, the researcher has attempted to review the tools that are adopted to aid the KM process of the organization. Such a review can throw light on the various knowledge capture techniques.

Roelof P. uit Beijerse (1999) provided a conceptual background of knowledge management process and identified the key area to be focused while adopting the knowledge management. Training employees with regard to knowledge management, educating the employees about the knowledge management, usage of electronic medium to capture and share knowledge were found to be the essentials for knowledge management activities. Data bases, team building, mentorship, computers, Intranets, and Video conferencing were considered as the tools or methods of knowledge sharing.
Geoff Walsham (2001) identified communities of practice, discussion forums, virtual teams, Coaching, Mentoring and face to face interaction as the techniques for capturing and transferring the knowledge of the employees.

Ben Ramalingam (2005) analyzed the existing research on knowledge and learning in the development sector, and drew out eight key questions for examining strategies and systems in development agencies. The analysis identified that out of the KM tools like Mentoring, Coaching, Communities, Training, Intranet, Internet, Email and After Action Reviews (AARs), a few tools such as trip reports, community of practice, internal staff exchange programmes and After Action Reviews (AARs) were used at large.

Steve Morrissey (2005) explored the design and implementation of effective knowledge management systems in companies. Mentorship programs, storytelling, project summaries, communities of practice were considered to be the sophisticated tools for KM. Internet, Intranet, and virtual workspace were also found to be the tools for knowledge capture and transfer.

Jayanthi Ranjan and Saany Khalil (2007) provided a conceptual frame work of knowledge management implementation in “B” schools. The knowledge management tools adopted in the institution under study were Intranet, online teaching, Emails, Video conferencing, and discussion forums. The study recommended that knowledge management supported by IT infrastructure and Mentoring will have a positive influence on the outcome.

Ben Laquinto et al. (2011) reviewed the design for communities of practice and found communities of practice as one of the major tools for developing and fostering knowledge in the organization.

Mostafa Jafari, Peyman Akhavan and Maryam Akhtari (2011) explored the knowledge capture techniques used in the tunnel industry of Iran.
The results revealed that process mapping, concept mapping, Elicitation interviews, and Video tapping were the popular tools used to acquire experts’ knowledge.

Pricilla A. Arling and Mark W. S. Chun (2011) described a framework to assess the capacity of the knowledge management system to facilitate new knowledge creation in a company in USA. The study identified that knowledge can be generated and standardized by adopting knowledge management tools such as Mentoring, forums, knowledge portals and Networking.

Seyed Mohammed Mortazavi (2011) reviewed the literature to provide a model of knowledge management for project based firms. The study revealed that there must be a symbiosis between the system and human. It stressed the need to convert tacit knowledge in to Explicit knowledge with the help of tools such as knowledge portals, repositories, communities of practice, Video conferencing, job rotation, and Mentoring. It also envisaged the need of IT backup for effective knowledge management.

Tatiana Gavrilova and Tatiana Andreeva (2012) discussed the methods to elicit the tacit and Explicit knowledge in an organization. It was found that story telling, role game and brain storming were the appropriate methods for eliciting tacit knowledge. Brain storming and verbal protocols were the methods suggested for Explicit knowledge Elicitation. The study further suggested the usage of computer based methods to elicit the employees’ knowledge.

Savita and Lokesh Gautam (2013) developed a theoretical framework for understanding the structure of effective knowledge management and explored the existing status of knowledge management in selected large
manufacturing companies in India. Internet, Intranet, extranet, Email, and Video conferencing were found to be the preferred medium of knowledge management.

Through the review of the related literature, it is assessed that portals, internet, Email, Mentoring, Coaching, and communities of practice are the common mediums for acquiring and transferring the knowledge. The knowledge is acquired from both internal and external sources as well and is transmitted within the organization. It is also found that several technological and non-technological techniques are employed for knowledge capture, retention and transfer.

### 2.3 Factors Influencing KMP

The relentless quest by the organizations for capturing, storing, and transferring the knowledge marks the importance of KMP, but introduction and implementation of the concept of KM among the employees is greatly influenced by several factors. A detailed review pertaining to this dimension helped the researcher to identify the factors that exercise a notable influence on the organization’s knowledge management initiatives.

Alavi and Leidner (1999) provided an analysis of the knowledge management practices, outcomes and the nature of knowledge management systems in fifty organizations. The analysis revealed that the role of information technology component is only a little whereas the impact of culture and managerial level participation on implementation of KM was found to be higher.

Holsapple, C. and Joshi, K. D. (2000) conducted a study by adopting Delphi methodology to construct a framework of factors that influence knowledge management. The study grouped the factors into three main classes namely managerial influences, resources influences, and
environmental influences. Leadership coordination, linking reward system with knowledge sharing, control and performance measurement were identified as factors of managerial influence whereas financial resources, attitude and skills of human resource, knowledge resources (culture, strategy) were placed under resource influences. Environmental influences included the external environment, political and legal frameworks.

Fahimeh Babalhavaeji and Zahra Jafarzadeh Kermani (2001) studied the relationship between three independent factors, attitude, intention, intrinsic rewards and the dependent factor, knowledge sharing. The findings revealed that the three factors share a strong positive relationship with the knowledge sharing behavior.

Abdel Kader Daghfous (2003) provided a conceptual framework to make knowledge management as the core capability of the firm. He opined that the availability of an appropriate reward system and IT backup would enable the employees to adopt knowledge management. The study suggested that training of employees, and knowledge mapping could serve as the effective tools for knowledge capture. It was also stated that employees’ willingness and supportive organizational culture highly influence the adoption and implementation of knowledge management.

Minu Ipe (2003) examined the factors that influence the employee’s attitudes towards knowledge sharing. Four major factors were identified namely, nature of knowledge, motivation, opportunities to share and culture. Motivation of employees with proper incentives system and the perceived reciprocal benefits fell under motivational factors whereas the availability of proper channels fell under the factor “opportunities”. The study opined that the fourth factor culture is embedded in the other three factors. It was concluded that the four factors are interdependent and if properly coordinated they can yield a better result.
Naresh Chandra Sahu (2006) studied the requirements to promote knowledge sharing in corporate sector. He identified that a supportive organization culture can play a crucial role in making knowledge management process a successful one. The study concluded that technology as well as employees’ willingness must go hand in hand to achieve optimal use of knowledge management in any organization.

Hazman Shah Abdullah et al. (2009) studied the role of enablers towards knowledge sharing behavior of employees in a knowledge intensive firm. Learning mechanism, accessibility to the available resources, feedback, and incentives to share knowledge were identified as the factors influencing knowledge sharing. It is also suggested that the individual knowledge need to be diffused into organizational knowledge.

Ming Yu Cheng et al. (2009) explored the factors influencing knowledge sharing behaviour in Malaysian multimedia university. The research viewed that KM is not only knowledge creation but also the process of knowledge sharing. The factors were grouped into organizational factors, individual factors and technological factors. Incentives, management support, and organizational culture were termed as organization factors. Individual’s attitude, and their personal interest were named as individual factors and technological availability was considered to be the technical factor.

Parag Sanghani (2009) examined the conceptual framework of implementation of knowledge management in Indian organization. Rewards, technology, culture, training and learning were identified to be the common factors influencing the organization and the individual towards knowledge management. Strategy, structure, system, and leadership were found to be more influencing for organization specifically while personality and attitude were influencing the individual to a great extent.
Sylvio Cyr (2009) explored the individual and social dynamics of knowledge sharing among the employees in Canada. The study revealed the positive relationship between the perceived benefits of knowledge sharing and the intention to share knowledge. Structural hierarchies also influenced an individual to share knowledge. The perceived outcomes of knowledge sharing played a crucial role in motivating the individual to share his knowledge.

Alipour, H. et al. (2010) investigated the role and impact of knowledge management on acquiring competitive edge in an insurance company by adopting case study method. Pearson’s correlation and regression were applied to analyse the data. The study suggested that encouraging innovation among the employees, implementation of new ideas, paying attention to individuals need and creation of a knowledge bank can positively influence the adoption and implementation of KMP in any organization.

Kamla Ali Al-Busaidi et al. (2010) empirically investigated the motivators of individual knowledge sharing behaviour and the individual benefits of such behaviour in a private petroleum organization in Oman by application of partial least square analysis. The study identified rewards policy, management support, and system quality as the factors influencing the KM process to a great extent.

Karthikeyan, K. and Rengaraj, R. (2010) identified the various factors that contribute towards knowledge management practices in an automobile industry in India by applying Factor analysis, Correlation and Reliability test were used. The study highlighted the capability of knowledge management to use resources more efficiently. KM can make a firm to be more innovative and to perform with excellence. The importance of training based on competency gap, and R & D for enhancing the knowledge of employees’ was also stressed in this study.
Li-Su Huang et al. (2010) aimed at investigating factors influencing the adoption of knowledge management in Life Insurance Corporation of Taiwan. Twelve factors and ninety three variables altogether were identified through literature review. Political climate, attitude of employee, IT infrastructure, and knowledge management promotional programs were identified as the crucial factors. IT infrastructure, employee attitude and personal interest, top management commitment, knowledge leaders, policies of the organization were found to be the influential variables. The study proposed that knowledge management can effectively be implemented provided the listed factors were duly attended.

Yap L. S. et al. (2010) studied the factors influencing knowledge management practices in Malaysian multimedia super corridors. The study revealed that the demographic factors, designation, and age exercise a major influence on the adoption of KMP. It is further revealed that organizational culture, organization structure, and attitude of the employees are the major factors influencing KMP, apart from IT.

Adeline Du Toit and Piet Styen (2011) aimed to establish a relationship between knowledge management and the barriers strategy of South African enterprise. It studied the importance of knowledge management in formulating barriers strategy and the role of KM in organization performance. The study concluded that prior planning of processes and a suitable strategy needs to be evolved for knowledge management and if done so, knowledge management can contribute to organization’s success.

Ali Sharvazi et al. (2011) investigated the factors influencing employees’ readiness towards the KM initiatives by the application of correlation and hierarchical regression analysis. It was found that the employees’ perception that the organization cares for the employees’ development positively impact them towards the KM activities. Top
management support, supply of quality information on KM, convincing the employees, conveying the importance of KM, creation of positive attitude and provision of ample IT infrastructure influence the employees greatly towards the implementation of KM.

Anand, A. et al. (2011) identified the steps for implementation of KM activities in Indian SMEs for improving competitiveness of SMEs. The study prioritized the issues to be considered while implementing KM in the organizations. Linking organizational goals with KM, developing human competencies, creating IT infrastructure and identifying the barriers were considered to be the factors for the KM program of the organization.

Mohamed Chalifa and Vanessa Liu (2011) critically examined the role of IT in success of KM activities and also other factors influencing the success of knowledge management. Three key variables namely, culture, leadership and appropriate strategy were identified under the factor “infrastructural capabilities”. The study concluded that IT infrastructure does not directly contribute to knowledge management without suitable process capabilities. The author identified knowledge management strategy, leadership and culture as the key variables in determining the success of knowledge management.

Noorahzah Md. Noor et al. (2011) examined the factors that influence knowledge sharing and knowledge sharing capabilities of employees of electronic government agencies in Malaysia. The study grouped the variables into two groups (i.e.) technical factors and non-technical factors. Availability of IT infrastructure and end users forum were identified as elements of technical factor whereas organizational structure, rewards, incentives and interaction between individuals were grouped under non-technical factors.
Watanebe et al. (2011) conducted an investigation on the influence of leadership, organizational culture, organizational structure, work style, organizational climate on knowledge management across cultures. The data were collected from a Japanese pharmaceutical company and its subsidiaries in other countries. The study revealed that all these factors affect the knowledge management practices but the magnitude of influence differs across countries. It was further suggested that the KM practices must be tailored in accordance with the organisation’s ideologies and the local environment.

Zhengmin Liu and Huajie Wang (2011) probed the factors influencing knowledge sharing attitude among software employees in Shandong. The study identified incentive mechanism, communication platform learning mechanism, career planning, sense of responsibility, and mutual trust as the factors that influence the employees’ knowledge sharing behaviour. The study concluded that career planning has a positive impact on the knowledge sharing process and mutual trust also shared the same platform. The researchers further opined that clear statements of vision and mission, and a supportive culture can yield positive results.

Jelina Rasula et al. (2012) studied the impact of KM on organizational performance by applying structural equation modeling. Information technology, organization and knowledge were found to be the three major components of KM. The study identified, a healthy culture based on transparency, mutual trust, and information technologies positively influence the adoption and performance of knowledge management practices.

Katalin Dobarai et al. (2012) analysed the critical issues and diverse aspects of knowledge transfer in Hungarian subsidiaries of MNC’s, through the application of descriptive statistical tools frequency distribution and percentage analysis. The study revealed that knowledge transfer abilities, and
motivation to share knowledge are the most important enablers of knowledge processes. The communication skills of the employee, attitude of the expatriate, diversity of culture and relevance of the knowledge were also found to be influencing knowledge transfer. The results also identified the importance forms of training and development at the local subsidiaries for knowledge acquisition.

Min-Shi Liu (2012) explored the relationship among knowledge psychological ownership, knowledge incentive mechanisms, and individual knowledge creation behaviour by application of confirmatory factor analysis and structural equation modeling to test the sample of 100 R&D professionals in Taiwan. The study hypothesized that, more aware the employees are of the property rights sharing arrangement and a new trend in incentive mechanism has a direct impact on the sense of psychological ownership of knowledge. In turn, it has a direct relationship with the knowledge sharing by employees. It suggested that the knowledge incentive mechanisms beneficially affect the knowledge capture process in the research and development firms.

Oliveira Mirian et al. (2012) conducted a case study in eleven firms of Portugal to explore the stages of knowledge management and factors associated with it. Top management support, culture, organizational structure, and financial resources were the base factors for knowledge management. The second stage involved IT infrastructure, usage of tacit and Explicit knowledge, clear process as the factors of implementation stage. Training, devising reward system and evaluating the benefits were factors in development stage. Interpreting knowledge management with the external environment was placed under integration stage.

Pimchangthong, D. and Tinprapa, S. (2012) empirically investigated the factors influencing knowledge management practices in the manufacturing industry by applying multiple linear regression and correlation. The authors
concluded that technology infrastructure, human resource and organizational culture influenced the knowledge capture process.

The success of KM initiatives by the organizations is strongly dependent on the existence of several factors. This extensive review reveals that supportive corporate culture, monetary rewards, IT infrastructure and dedicated knowledge leaders play a dominant role in the adoption of knowledge management initiatives.

2.4 IMPLEMENTATION STRATEGIES

Implementation strategies refer to the methods adopted by the organization to implant the KM activities among the employees. The knowledge management practices and policies need to be carefully aligned with the organizational and individual goals and are to be implemented amidst the resistance from the employees. Cautious planning and implementation can reduce the resistance to change and can enable the organization to adopt KM.

McCambell et al. (1999) identified active senior participation, proper dissemination of the concept, effective usage of technological tools, training, usage of external sources and frequent feedback as the strategies for implementing knowledge management practices.

Andrew H. Gold et al. (2001) examined the issue of effective knowledge management from the perspective of organizational capabilities. The analysis suggested that a knowledge infrastructure consisting of technology, structure, and culture along with knowledge process architecture of acquisition, conversion, application, and protection are essential organizational capabilities or “preconditions” for effective knowledge management. Technology, culture and structure were classified as knowledge infrastructural capabilities. Creation, acquisition, conversion, application, and protection of knowledge were grouped as knowledge process capabilities.
Susanne Jensen (2003) observed the process of knowledge creation and transfer in tourism industry Denmark. Lack of communication and lack of motivation were proved to be the barriers. Competency building and alliances were considered to be transfer strategies.

Kuan Yew Wong and Elaine Aspinwall (2004) reviewed the KM implementation frameworks presented in the literature in order to determine and propose a set of guidelines for constructing them. The authors developed a set of guidelines for implementation. The framework suggested that incorporating a clear structure, considering the different knowledge resources or types and covering the KM processes or activities that manipulate the knowledge can support the implementation. It is further suggested that providing a balanced view between technological and social perspective can nurture KM implementation.

Vira Kommaraju (2005) opined that creating a supportive environment, encouraging the leaders to participate, conducting training courses and making effective use of IT infrastructure can enable the effective implementation of KMP in any organization.

Chih Hung Tsai et al. (2006) undertook a case study on KM in an information consulting company. The study suggested that creating a web portal, constant updating, usage of internet, proper codification and periodical meetings to encourage interaction can enhance knowledge capture and retention. It further stated that the top management support, psychological attitude of the employees and the intention to share have a dominant say in the success of knowledge management. It proposed a formula knowledge management = (P+L+H)+I which stands for, people, learning, handling, sharing with the help of internet.
Miguel Baptista Nunes (2006) explored the perception, usage and representation of knowledge in small and medium knowledge intensive enterprises. The study found that while acknowledging the fact that adequate capturing, storing, sharing and disseminating knowledge could lead to greater innovation and productivity within their organization, managers were not prepared to invest the relatively high effort on long term goals for which they have difficulty in establishing the added value. Knowledge management in SMEs tends to happen in an informal way, rarely supported by purposely designed ICT systems.

Wei, C.C. et al. (2006) examined the importance of the success factors of knowledge management practices in Malaysian telecommunication sector. The study revealed that the organization structure and a clear business strategy exercise more influence in the implementation level.

Abril, R. M. (2007) critically examined the factors driving the employees to adopt knowledge management. He analyzed the reason for the initial failure and the later success in implementation of knowledge management. The researcher opined that availability of capital and technology alone cannot create the instinct to adopt knowledge management. The study stated that proper training, engaging all levels of management in knowledge management activities, availability of proper rewards, and using collaborative event can help to implement knowledge management.

Bhaskar Basu and Kalyan Sengupta (2007) critically examined the knowledge management components in an Indian Business School. The study revealed that internet and data depositories were used as the tools for knowledge acquisition and sharing. IT infrastructure, employee participation in seminars and training were used as the strategies for implementing knowledge management.
Smith, J.G. and Lumba, P.M. (2008) investigated the KM practices and challenges in a Non Government Organization in two different countries, Zambia and Netherlands. The study found that the financial factors, awareness on knowledge sharing techniques, and clear strategy positively impact the knowledge management. It suggested that devising a suitable policy, proper implementation, strengthening IT infrastructure would enable the adoption of knowledge management practices.

Janelle Pritchard and Karen Becker (2009) examined the role of succession management as knowledge management strategy in Assistant Rail Industry. The study revealed that several knowledge sharing tools such as Mentoring, Coaching and 360 degree appraisal, partnership with universities were used to train the employees. It was found that succession planning can be effectively used as knowledge management strategy but the rail management failed to concentrate on this dimension. It rather used succession management for attracting and retaining talent.

Abhilasha Singh and Ebrahim Soltani (2010) studied the awareness about KM and the implementation process in IT companies in north India. It was opined that the availability of technological support, conversion of individual knowledge into organization knowledge, existence of supportive organization culture would enable the workforce to adopt knowledge management. Learning, usage of technology, inclusion of knowledge management in training and appraisal system can be adopted as strategies for implementation. Lag in creating and receiving new knowledge, importing the essence of knowledge management to staff, and organization defensive routines were identified as challenge in implementing knowledge management.

Ngcamu and Sanjana (2011) studied the knowledge management implementation strategies and the impact of knowledge management on organizational effectiveness. The study was conducted in two public sector
service units to examine the employees’ perception on the strategies adopted for implementing knowledge sharing and its effectiveness. The variables considered for the study were, availability of tools to capture and convert the tacit knowledge into Explicit knowledge, proper reward system, and clear documentation process. The study revealed provision of rewards greatly influenced the workers to adopt knowledge management practices and use of IT infrastructure and other tools essential to have a fruitful knowledge management process. It was opined that collaborative use of indigenous knowledge and public participation, design of reward system, provision of adequate tools and motivation of employees were imperative for implementation of knowledge management process.

Gopalkrishna, B. et al. (2012) evaluated the state of knowledge management implementation and awareness of KM in two software institutions. The analysis revealed that the introduction of KM in the organization has improved the knowledge search of the employees and it encouraged innovation. It was suggested that better information and more training about the KM framework and its IT support will augment the effectiveness of its implementation. It is further stressed that adequate resources should also be provided for the functioning of knowledge management systems in the organizations.

Maryam Atoufi, N. et al. (2012) investigated the readiness of cement industry to implement knowledge management based on three factors. The factors, knowledge Process and organizational culture were at the intermediate stage and the status of IT was found to be very poor. The authors suggested that development of training programs, continuous evaluation of training programs and performances, brainstorming sessions with successful companies and provision of appropriate information systems can serve as the effective strategies for implementation of KM in the Industry.
Rajender, K. and Pavan Kumar KVLN (2012) investigated the knowledge management practices in SME sector in India. The study focused on assessing the role of various levels of management in implementation of KMP and also the role of organization culture in building a knowledge environment. It was found that the KM process undergoes the introduction and growth stages in Indian SME sector. The study disclosed the responsibility of managerial staff in implementing the KMP. Lack of inbuilt mechanism, lack of communication and lack of top management support were found to be the major hurdles in implementing the KM effectively.

The above reviews revealed that knowledge creation and transfer can occur internally and externally as well. The intensified review enabled the researcher to identify that most of the organizations adopt training as the preferred strategy to encourage knowledge creation and knowledge sharing. Encouraging the employees to learn from outside and involving all levels of management were found to be very common among the KM driven organizations.

2.5 BARRIERS TO KNOWLEDGE MANAGEMENT PRACTICES

Despite being aware of the importance of KM, many of the organizations could not successfully implement it. The absence or presence of several factors critically affects the success rate of KM activities in an organization. The paucity of success factors and the presence of certain inhibitors stand in the way of effective implementation of KMP. Hence, there is a need to review the literature pertaining to the barriers of KMP.

David G. Wastell (2001) explored the success factors and barriers of knowledge management in a motor manufacturing company by applying action research model. Difficulty in measuring and quantifying the effectiveness, lack of commitment, inadequate participation, poor preparatory
work, and in built conservatism were identified as the barriers to KM process. It is further suggested that creation of a knowledge repository and reorganization of incentive structure are inevitable to improve the efficacy of knowledge management practices.

Niza Adila Hamzah and Prof. Peter Woods (2003) studied the awareness about knowledge management in Malaysian small and medium enterprises. The study aimed to examine the awareness, tools and barriers for successful implementation of knowledge management. In spite of the availability of IT infrastructure, the SMEs were not able to effectively utilise it, because of lack of understanding of knowledge management concept by employees. It has also been noted that the lack of commitment, insufficiency of financial resources and lack of proper codification and documentation had a great influence on knowledge management adoption.

Pervan Graham and Ruth Ellison (2003) examined then practice of KM in public and private organizations in Australia. The study explored the enablers, barriers and benefits of KM among the IT departments with the use of correlation analysis. Intranet, internet, Email, cross functional team, and communities of practice were identified as the knowledge carrier and transfer tools. Lack of time and resources, and lack of positive attitude among the employees were found to be the major barriers, in spite of the awareness on outcomes of KMP. It was suggested that tacit knowledge need to be converted into reusable form.

Andreas Riege (2005) through an extensive literature review provided an exhaustive list of three dozen barriers to effective sharing of knowledge. The review, systematically grouped the barriers into three major categories namely, individual/personal, organizational, and technological barriers. Lack of time, lack of contact time and interaction, poor verbal or written communication and interpersonal skills, lack of trust in people were the major
individual barriers. Failure to integrate knowledge management strategy, lack of transparent rewards and recognition systems, shortage of appropriate infrastructure, internal competitiveness, deficiency of company resources were the potential organizational barriers. The study further identified lack of integration of IT systems, lack of training regarding employee familiarization of new IT systems and failure to communicate and demonstrate the advantages of KM over existing systems as the technological barriers.

Patrick Sik-Wah Fong and Lily Chu (2006) investigated the methods, barriers and benefits of knowledge sharing activities in contracting companies of Hongkong. Meetings, informal talks, storytelling, Email and Mentoring were the popular methods through which knowledge sharing took place. The barriers were classified into organization barriers and individual barriers. Lack of finance, support and infrastructure from management were the key barriers from organization perspective, while lack of management, commitment, unwillingness to share and lack of trust were the individual barriers. The factors influencing knowledge sharing were also examined and was found that top management commitment, encouraging organization culture, availability of rewards, availability of experience people were some of the factors that determine the extent of knowledge sharing.

Vincent Hughes and Paul Jackson (2006) examined the inhibitors to knowledge sharing culture in Australian Police Service. The study identified mistrust, lack of senior participation, lack of coordination among employees of different hierarchy to be the major inhibitors for knowledge sharing.

Timonen, H & Ylitalo, J (2007) explored the challenges in knowledge sharing process with special reference to value network in Finnish grocery industry. The knowledge sharing was enabled by internal factors such as perceived reciprocal benefits and external factors such as the reward system. The major barriers to the knowledge sharing process were found to be the fear
of losing unique knowledge, lack of trust with colleagues and the non availability of equivalent rewards. Lack of encouraging organization culture had also been witnessed as one of the challenges faced. It was concluded that top management support and sufficiency of knowledge management tools can influence the implementation phase.

M. D. Singh and R. Kant (2008) critically analysed the barriers in implanting knowledge management in an organization by classifying the barriers as driving barriers and depending barriers. Nine barriers were extracted from review of literature. Lack of top management commitment, lack of technological infrastructure, lack of motivation and reward, lack of management commitment, lack of technology and lack of organization structure were identified as key barriers. These were also termed as driving factors and other factors were named as dependence barriers. The study established a mutual influence of the barriers.

Chihab Ben moussa (2009) created a theoretical framework on impediments to effective knowledge management and based on the framework, case studies of five firms were analysed. The study identified that the organizational barriers consist of lack of clear planning, failure to include the end users in planning, ineffective conversion of implicit knowledge, lack of integration and lack of motivation. Lack of understanding the benefits of KM, perception of low incentives, and resistance to part with the expert knowledge were termed as individual barriers. It was further identified the failure of the organization to develop appropriate plans to motivate the employees to encourage knowledge sharing as one of the major impediments. The gap that exists between the end users and the management is also attributed for the failure of knowledge management practices.

Gokhan Nalbant (2009) studied the problems that occurred in a Turkish company during the implementation of information technology to
back up knowledge systematization. Knowledge war among existing and new employees, failure of top management to convince the employees, attitudinal barriers and lack of knowledge sharing culture were considered to be the major barriers that stand in the way of implementing knowledge management practices.

Constantin Bratianu (2011) critically evaluated the barriers in the development and implementation of KM in Romanian economy. The study revealed that lack of transparent organizational culture, lack of creativity and innovation, lack of top management support and lack of trust were the barriers that hinder the transition to knowledge management.

B. P. Sharma, M. D. Singh and Alok Kumar (2012) aimed to identify the critical Knowledge Sharing Barriers (KSBs) and their mutual influences by applying the interpretive structural modeling (ISM) to evolve mutual relationships among KSBs. Lack of time to share knowledge, fear of job security, lack of trust, lack of training, unrealistic expectation of employees, reluctance to use IT system, staff defection and retirement, lack of integration of IT system, and lack of documentation were found to be the barriers that play an important role in implementing knowledge management in any organization.

Islam, Md. Motaharul, Alam, Md. Asraful (2012) explored the managers’ awareness of impact of knowledge management. The study found that lack of understanding the knowledge management concept and its importance was a major barrier in effective implementation of knowledge management practices.

Yash Joshi, Satendre Parmer and Saurabh S. Chandrawat (2012) classified the barriers based on their driving power and dependence power, into four categories as autonomous KSBs, dependent KSBs, linkages
KSBs, and independent KSBs. The study found that the barriers share an interdependent relationship among them. It is also found that lack of culture result in resistance to change and lack of clear procedures and methods lead to resistance to change. Lack of culture, lack of trust, lack of motivation, resistance to change, lack of ownership of the KM problem were found to be the weak drivers but are strongly dependent on others.

2.6 BENEFITS OF KNOWLEDGE MANAGEMENT PRACTICES

The role of KM in creating a competitive edge can never be ruled out, as it offers several latent benefits to the organization. Leveraging of intellectual capital is made highly possible through the adoption of knowledge management processes. Thus the researcher felt the need for an extensive review of related literature to chalk out the benefits of KMP.

Marianne Gloet and Mile Terziovski (2004) explored the relationship between KM and innovation. They measured the effects of knowledge management approaches and innovation performance by studying the manufacturing industry. The study showed that knowledge management contributes to innovation performance when a simultaneous approach of “soft HRM practices” and “hard IT practices” are implemented. The study concluded that there is a significant and positive relationship between knowledge management practices and innovation performance.

Ravi Shankar et al. (2006) studied the reasons, enablers, implantation strategies, tools, and measurement of usefulness of knowledge management practices in Indian manufacturing industry. The study revealed that Email, Intranet, and internet, cross functional teaming were the much preferred enablers. The researchers found that improvement in efficiency, decision making, responsiveness, innovation, sharing best practices and avoidance of duplication were the benefits of the knowledge management.
Jignesh R. Luhariya (2009) studied the perception of employees of KIRBACH Ltd., on knowledge management. The study revealed that Email, Intranet and formal meetings were the major sources for knowledge sharing. It was opined that the knowledge shared by the employees must be institutionalized. Cost reduction, better decision making and quality improvement were found to be the beneficial outcomes of knowledge management.

Michael Zack et al. (2009) examined the relationship between knowledge management practices and organizational excellence. Knowledge management methods, implementation and benefits were termed as knowledge management practices. The study revealed the organizations included knowledge management as a part of planning had clear methodology and motivated the employees by rewarding them for sharing knowledge. The results posited a direct relationship between knowledge management practices and organization excellence which in turn can lead to improved financial performance.

Jyoti Batra (2010) studied the emerging knowledge management practices in IT industry and examined the impact of knowledge management on the learning and individual growth. The study found that the knowledge management is practiced in its initial stages in many organizations. The results suggested that the individuals growth can be enhanced provided the organizations support knowledge management.

Chada, S. K. and Deepa Kapoor (2010) critically analysed the knowledge management practices in auto component manufacturing companies in Ludhiana. The study covered the type of technologies used for knowledge sharing, the perceived benefits of knowledge management and hurdles as well. Better decision making, sharing of best practices, improved adaptation capability in employees and enhanced productivity were coined.
as the benefits of knowledge management. The study concluded that the embedded knowledge (tacit) of employee needs to be converted to available knowledge (Explicit) through a supportive organization culture.

Bojan Krstic and Bojan Petrovic (2011) examined the role of knowledge management in developing the capabilities of the firm. The study found that the adoption of knowledge management can support the organization to capture, assimilate and exploit the external knowledge. The findings revealed that the exploitation of external knowledge can enhance the opportunities for innovation thereby increase the absorptive capacity of the organization.

Tan, C. L. et al. (2011) conducted a study to find the mediating effect of knowledge management effectiveness on organizational innovation. The study concluded that knowledge management effectiveness possess a mediating role on organization innovation through training and performance appraisal.

Aytac Gokmen and Hamsioğlu, Ahmet Bugra (2011) analysed the relation between KM, technological capability and innovation on the enterprise performance in the Turkish textile sector using factor analysis, correlation, regression and descriptive analysis. The study identified a strong positive relationship among the four variables. It was found that KM has an impact on technological capabilities and innovation which in turn affect the organizational performance. It is further suggested that the firms must take effective steps to implement KM to attain a competitive edge.

Neeru Mundra et al. (2011) examined the effect of knowledge management on the organization excellence. They established a link between the knowledge management and the organization ability to attain competitive edge.
Omar R. Mahdi et al. (2011) figured out the roles of knowledge and knowledge management in achieving sustainable competitive advantage within organizations. It analysed the KM on the basis of resource based view, and from industry perspective. The theoretical review concluded that knowledge and knowledge management significantly impact the process of sustaining competitive advantage.

Santwana Chaudhury (2011) studied the knowledge management activities of IT Industries in Hyderabad and Kolkata. The study revealed that the Intranets, web portal, discussion forum, seminars, journals and magazines were used as the tools for knowledge capture. It further posited that a value driven organization culture, top management support and cooperation of employees were crucial for the successful implementation of knowledge management which in turn offered benefits in the form of cost reduction, improved skills of employees and quality of service.

Waheed Akbar Bhatti et al. (2011) explored the effects of processes, culture, strategies on knowledge management and the impact of knowledge management and organization performance by adopting PICS (Process, Intellectual capital, Culture and Strategy) model. The researcher opined that developing an encouraging knowledge sharing culture would pave way for easy implementation of knowledge management in organization and further stated that knowledge management could be converted into a core competency to provide a competitive edge.

Abbas Alaei et al. (2012) examined the knowledge management system with innovation and its impact on the success of innovative and competitive organizations. The study provided a conceptual model of the relationship between knowledge management and organizational innovation. The conscious integration of tacit and Explicit knowledge and creation
of competitive advantage were found to be the outcomes of knowledge management and it was proposed that knowledge management can promote physical innovation and technical innovation.

Ailar Rahimili (2012) investigated the importance of knowledge management in respect of competitive advantage. The study identified that by adopting KM, an organization can achieve competitive advantage over others. Problem solving capacity, skill development, promoting innovation, and development of core competencies were the positive outcomes. It suggested that information science can play a pivotal role in maximizing the benefits of knowledge management.

Muhammad Rizwan Kamran and Fiza Sabir (2012) examined the relationship between the knowledge management activities and organizational effectiveness among the employees of pizza hut outlets in Pakistan. The study identified that adoption of KMP positively impact the organizational effectiveness in the form of process improvement, innovation, and increased skills of employees thereby providing a competitive edge over others.

Shahram Gilaninia, Mir Abdolhasan Askari and Mohsen Dastour (2013) reviewed the conceptual background and the various models of knowledge management. The study acknowledged the impact of knowledge management on preventing knowledge drawdown, improving of decision making, flexibility and adaptability, competitive advantage, development of assets, increased product and customer management, implementation of investments in part of human capital.

The systematic review of the literature has thrown light on the factors that enable the adoption of knowledge management practices, the outcomes of such practices and the barriers that hinder the implementation process. It is also found that no clear records exist regarding the status of KM in Indian
IT industry. Thus the review process enabled the researcher to choose to study the KM practices in the IT industry in Chennai and the employees’ perception towards these practices. Such a work can provide a revelation on the enablers of KMP in Indian context and the relationship between the barriers to and benefits of knowledge management practices.

2.7 Research gap

The review of related literature revealed that majority of the studies was conducted keeping the organizational aspect as the locus of research focused on specific aspects and outcomes of knowledge management. Detailed research works in the chosen sector is comparatively less as far as the Indian context is concerned. The employees play a pivotal role in transforming the knowledge management policies and plans of the organization into action to benefit both the employees and the organization on the whole. Therefore it is felt that a study on KMP from employees’ perspective will be appropriate. Hence, the researcher decided to study the employees’ perceptions on the various facets of knowledge management practices.