CHAPTER 3

Review of Literature

3.1 Contemporary and previous works

3.2 Research gaps identified
In the literature survey, the emphasis was given to cover the works with respect to the KM in SMEs from global perspectives. The literature is organized chronologically giving importance to recent works done, and published in reputed National and International Journals and Conferences. We made an attempt to highlight research objectives, the research methodology adopted, and important findings of research. In this process, we have accumulated sufficient information on knowledge enablers, processes and organizational performance, which helped us to align our research flow with contemporary works.

3.1 Contemporary and Previous Works

The study by Roberto C. et al. (2015) studies the impact of adopting the knowledge management systems over the performance of SMEs. The study analyzes that even though SMEs suffer from poor financial and human resources, they never become the hurdle for the spread of KM practices. The study was conducted in three phases; 1. Identifying the factors affecting the KM, 2. Systems support for the KM, and 3. The impact of the KM on organizational performance.

Girish G.P. et al. (2015), investigated various factors which influence successful implementation of KM systems in Indian SMEs. The hypotheses have been constructed over the behavioral intention to use KM system and the impact of self-efficacy on the KM system. The proposed model is said to have qualities of technology acceptance model (TAM), the theory of reasoned action (TRA) and social cognitive theory (SCT).

The research study by Lavanya, R., (2014) on Auto Component SMEs of Pune region is to understand various knowledge management infrastructure dimensions such as culture, employee participation, leadership, rewarding with incentives, training and mentoring. The findings of the study are there is a significant impact of training and mentoring on knowledge acquisition and capture, and the rest of the dimensions do not have any significant impact.

The work by Rajneesh & K.Kaur, (2014) identifies few critical enablers which determine the KM effectiveness within organizations, namely, Strategy and leadership,
Organizational culture, Organizational incentive system, and Information technology. The study reveals culture as the most vital factor for the KM effectiveness.

The work by Amalia S. et al., (2014) identified and analyzed the need for knowledge management in Batik SMEs. The main objective was to develop SECI model from the knowledge management practices within Indonesian Batik SMEs; the study successfully gathered a deep insight of knowledge gap and current knowledge process of Batik SMEs.

The work by Manoranjan D., et al., (2014) is an attempt to create Knowledge and Innovation (KI) network by integrating knowledge management aspects of SMEs with some of the tools available over the internet, the researchers suggests that the use of communication technology will broaden the scope of knowledge management, in turn helps in organizational strategic management.

Hari Vasudevan & Anup Chawan, (2014) has an opinion that manufacturing sector in Indian SMEs would practice the knowledge management effectively in their profession by attending knowledge deliberation programs such as conferences, workshops, consultancy, and socialization and academic interactions. The study was conducted over 11 types of manufacturing units which include, Manufacturer of cutting tools, printing equipment’s, heater exchangers, Polymer compound, and so on.

In KM Strategy for SME, (E. Gourova et al., 2013) provides useful insight into guidelines for preparing the KM strategy for SMEs. The strategy follows Balanced Scorecard approach and presents logically sequenced steps for practitioners. The guidelines suggest any knowledge management process should essentially have Mission, Goals, and Strategic choices. It also details on how to make use of results obtained from knowledge management audits.

Gholami M.H., et al., (2013) worked on the influence of on organizational performance. The work by Narasimha Rao Vajjhala & Jalena Vucetic, (2013) identified some of the key barriers to knowledge sharing in medium-sized enterprises and ranked them from the top as cultural issues, motivational issues, and monetary benefits for participating in knowledge sharing activities.
Saini R., (2013) developed a conceptual model to study the impact of knowledge management on three categories of SMEs, namely; software, pharmaceuticals, and textiles situated in North India covering Punjab, Haryana, and Himachal Pradesh states. The study confirmed that the adoption of KM practices has impacted on the organizational performance, improved employee competitiveness and employee retention rates.

The study by Younes A.A. et al., (2012) covered eleven factors that are considered as significant for practicing knowledge management in SMEs situated in Irbid District of Jordan. These factors include; Leadership Support, Culture, Resources, IT, HRM, Strategy and Purposes, Motivational aids, Process and activities, Training and Education, Organizational Infrastructure and Measurements. A t-test analysis was carried out to show the mean importance of various factors. Respondents of the SMEs showed the top three benefits of the KM in SMEs are improved standards of organizational performance, improved creativity of employees, and better organizational formulation.

Alvarez M. et al., (2012) studied the applicability of the KM practices and strategies to capture explicit and tacit knowledge in some of SMEs in Basque Country. The study conducted on select SMEs from Machine-tools, Electrical Appliances, Automotive, Electronics, Computing and Telecommunications, Energy, Aeronautics, and so on. The survey was mainly to identify the practices related to communications in the organization to share knowledge. The paper highlights various strategies used in the Basque country to capture explicit knowledge, which includes, technological file creation, the creation of a repository, best practices benchmarking, mind maps, and so on. The strategies to capture tacit knowledge include socialization, reviews, and weblogs.

The work by Suryaningrum D.H., (2012) suggests that knowledge management has a positive correlation with organizational learning and competitive strategy, while the family orientation of the business has a negative correlation. It also suggests that knowledge management capabilities of SMEs will be improved by networking with other organizations.
Gonzalo Maldonado Guzmán et al., (2012) analyzed the knowledge management has a positive impact on improving innovation in Mexican SMEs. Initially, a panel discussion comprised of people (such as businesses people, chairpersons, managers, CEOs from financial institutions [both public and private], representatives of Mexican government institutions, as well as university researchers) was conducted, the panel discussed and analyzed the importance and relationship between the KM and SMEs innovation activities in Aguascalientes. The results obtained in the panel discussion were used to define accurately the survey that was later administered over the SMEs managers. The findings of the work are knowledge management encourages innovation in SMEs in three different ways; 1. Locating innovative knowledge from external and internal sources, 2. Improving level of competencies, and 3. Brings changes in managerial systems.

The work by Apurva A. & M.D. Singh, (2011) focus on the strategy, implementation, technological and performance measurement, and benchmarking issues regarding the KM in Indian SMEs. The study has identified some of the issues for successful KM implementation in Indian SMEs, analyzed and presented for consideration for implementation. Strategic issues: competitive priorities, the basis of planning, the need of KM, level of contribution, etc. Implementation issues: key problems, KM enablers, obstacles, technologies, etc. Technological issues: management involvement, the role of IT, reasons for adaptation, etc. Performance measurement and benchmarking issues: KM measurements, KM tracking, types of KM benchmarking, etc. The study analyzed whether the KM is correlated with SMEs growth, the findings indicate that growth of the company is positively correlated with the maturity achieved in implementing KM practices. It also predicts that SMEs with a more comprehensive and strategic approach to the KM will grow more than those with a less balanced approach. The work also confirms that Indian SMEs are not following any comprehensive framework on the KM.

Kamath V. et al., (2011) studied the practice of SECI model in SSI and simulated the same using system dynamics. The study concludes with an application of SECI model in various trials resulted in an exponential increase in organizational knowledge and hence on the innovation success.
The study conducted by Soon, T.T., & Zainal, F.A., (2011) demonstrates how organizational creativity could be improved using knowledge management. The survey was conducted over SMEs, which includes manufacturing-related services and Agro-based industries. The research was considered under the threat scenario from Chinese companies to Malaysian SMEs. Various types of analysis were carried out on the responses received, namely descriptive analysis, reliability analysis, factor analysis for the knowledge enablers, creation process, organization creativity and performance. Four hypotheses were proposed and proved with regression analysis. Khaled Mohammad Al-Gharibeh, (2011) did a study on the knowledge transfer by identifying its enablers. The study is to identify knowledge enablers in telecommunications companies.

The research study by Chechen Liao et al., (2010) establishes a link between knowledge management, innovation, and firm performance. KM capability was found to be influenced by enablers, such as technology, structure, culture and human resource. The research and development were often influenced by KM capability, which improves the rate of innovation, and its magnitude. The work by Miguel G. and Dorrego P. F. (2011) models structural relationships between knowledge management and the growth of SMEs with a greater interest in innovation. Control Variables used for empirical analysis includes; Human Capital, Structural Capital, and Relational Capital.

Haibo Zhou & Lorraine Uhlner, (2009) investigates the relationship between knowledge management and innovation behavior, which includes the rate at which firm, develops new products or services. It also studied how knowledge management contributes to innovation behavior of SMEs. Independent variables (knowledge management and innovation orientation) and Dependent variable (innovation behavior) were collected by conducting several rounds of telephonic interviews. The outcome of research states that knowledge management practices will improve the absorptive capacity of a firm, and brings in innovation orientation.

Rajesh K Pillania, (2008) did a study on the KM from strategic viewpoint pertaining to SMEs in India, with reference to the automotive component sector. Some of the important findings of the research include the role of customer-focused knowledge in KM
strategy. Indian SMEs need to focus more on the strategic issues in KM for sustainable competitiveness. The research conducted also highlighted the need for IT in KM pertaining to the Indian SMEs.

The research by Tunc Bozbura, F., (2007) aims at analyzing the performance of Turkish SMEs. Control variables used for empirical analysis are training and mentoring of employees, policies and strategies used for knowledge management, knowledge capturing and acquisition from external sources, and also the organizational culture. Senior managers believe that the knowledge flow and sharing is not necessary for the success of SMEs in Turkey.

The main purpose of the study by Halil Zaim, (2006) figures out the relationship between the KM processes and the performance of Turkish SMEs. The study reveals three top processes of KM, such as sharing and distribution has more impact on KM performance than knowledge generation, development, codification, and storage. Three hypotheses were formulated for knowledge generation and development (KG&D), knowledge sharing and distribution (KS&D), and knowledge codification and storage (KC&S).

The work by Christo El Morr & Julien Subercaze, (2005) is on the application of knowledge management systems to support decision-making in drug prescription and disease management protocols, the findings of the work include KM is able to reduce medical errors, and thereby reduce the cost of defensive medicines. It is also proposed to be used as a tool to cut the medication prescription errors.

The study by Kun Chang Lee, et al. (2005) provides a new metric called knowledge management performance index (KMPI), for assessing the performance of the firm from knowledge management perspective. KMPI is a logistic function which includes knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilization, and knowledge internalization.

The research work by Cynthia ChinTian Lee et al., (2005) adopts an approach for assisting SMEs to capture learning experiences of participants. The socialization and
externalization are used to capture the tacit knowledge. The study suggests SMEs need to invest in education, training and infrastructure for efficient implementation of the KM.

The research work by Levy M. et al., (2005) highlights the strategic intent and industry adoption influenced by the enablers and inhibitors of e-business. The Ansoff framework is used to capture the strategic intent of the SMEs. Under strategic intention, four types of SMEs were identified based on SMEs interest in the type of market and products. The finding says that SMEs were started for one or two products with which the owner is familiar with.

The study by Lee H. & Choi B., (2003) analyzes various research frameworks which are available on knowledge management enablers, processes, and performance, and finds the relationship exists. Enablers considered are organizational structure, culture and IT. The findings of this study show that knowledge management practices are significant predictors of organizational creativity. It is also noted that technology-related variables are not significant to the knowledge management.

The work by Egbu, C., (2000) focuses on the importance of structure, culture, commitment and motivation to the active management of organizational knowledge. It concludes that effective knowledge management in construction SMEs involves both supply side and demand side. The supply side involves data and communications systems, whereas the demand side comprised of business goals, strategy, and people issues. The study employs interviews, questionnaires, and workshops in the elicitation of relevant research information. Control Variables used for empirical analysis includes leadership, strategy, culture, communication, and motivation.

3.2 Research Gaps

This literature study has been conducted to understand the need for knowledge management in small-to-medium-sized enterprises. The survey highlights how knowledge management in SMEs is different from large enterprises, with respect to various issues and parameters. Some of the research works have been studied to
understand the research methodology used to integrate and appreciate knowledge management techniques in SMEs, various findings and research gaps have been listed.

- It has been noticed that the knowledge management in Indian SMEs is one of the upcoming research trends, and there is enormous scope to implement comprehensive frameworks, and analyze and show that how Indian SMEs can make better use of this field to improve their overall performance.

- Not too many works are available pertaining to KM in Indian SMEs; we feel there is enough scope for proposing KM solutions in various SME sectors including healthcare, IT, manufacturing, etc.

- Due to globalization, there is an upcoming trend in inviting global investors both in the domain of SMEs and large enterprises; research pertaining to KM is an essential requirement.

- With respect to the context of Indian SMEs, a number of inventions happening in SME is not suitably recorded and encouraged; the effective KM techniques will improve the scope of innovations.

- Even though there exist quite a few models for KM in SMEs, but these models are not experimented with respect to Indian geopolitical environment, specifically to Bangalore region.