CHAPTER NO 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

In India, studies on KM practices in manufacturing industries have mainly focused on theories to identifying KM practices criteria for different sectors of industries. However, for proper implementation of KM practices in automobile manufacturing industries, not only identification of KM criteria is essential but developing an implementation road map. Further, evaluation of performance of an individual manufacturing sector based on certain criterion does not give an exact idea regarding the rank of the individual manufacturing sector in that region. Therefore, ranking a method has to be devised by which performance of select manufacturing sectors in that region can be evaluated. However, evaluating and comparing the practices of the manufacturing sectors in a group is a complex task as it requires multiple output measurement criteria that matches with the multiple objectives of each manufacturing sector. It requires a technique which could provide the correct and required information to the decision makers. Therefore, in this research work, an attempt has been made to provide a framework for implementation of KM which comprises of KM practices road map, prioritizing different criterion and evolving a methodology by which the performance of the manufacturing sectors in a group can be evaluated and compared. This methodology has been developed for the automobile manufacturing sector, which is one of the most important sectors not only in terms of the growth but also for its contribution towards global development.

8.2 SUMMARY OF WORK DONE

The present research started with the identification of gap from the literature and the exploratory interviews from the experts also confirmed that a clear gaps is visualized in explaining KM practices in Pimpri-Chinchwad, Pune region. The following points are detailed in steps with explanations of the research work.

- More than 150 international papers were reviewed.
- Expert interview was conducted from the professionals helped in selecting automobile manufacturing sectors in Pune region.
- Identification of gaps/objectives.
• Initial identification of dimensions and variables.
• A refined list of dimensions and variables to measure KM practices in Indian context for designing a questionnaire with the help of 20 experts.
• Identification of KM practices criteria consisting of 12 major criteria and 128 sub-criteria for manufacturing industries in Indian scenario.
• Data were collected from automobile manufacturing industries of Pimpri-Chinchwad, Pune region. 190 completely filled questionnaires were collected.
• SPSS 16.0 software was used to conduct factor analysis. Factors are found out from each criterion.
• Drivers and dependences amongst the identified criteria have been defined, which helps in analyzing their interrelationship using ISM methodology.

8.3 SIGNIFICANT CONTRIBUTIONS OF THE RESEARCH
The key results obtained from the research directed towards understanding the KM practice issues for automobile manufacturing industries in the following manner:
• The research has clearly identified research gaps and correlated them with research questions and issues to be researched.
• A comprehensive literature review on recent understanding of KM practices for Pimpri-Chinchwad, Pune manufacturing industries is offered.
• Research has justified the use of factor analysis to linkages of various drivers of KM practices.
• Research has justified the use of exploratory research – based on an integrated use of factor analysis, Interpretive Structural Modeling (ISM).
• An ISM model for implementing road map of KM practices for manufacturing industries.
• In total, this research has adopted both qualitative and quantitative approaches to investigate into the issues under consideration. The research has developed methodology to enable effective KM practices, planning in manufacturing industries.
8.4 IMPLICATIONS OF THE RESEARCH
Mainly, keeping Indian industries, practicing managers, governmental agencies and academia in view following implications and benefits of the research are outlined.

- The results may help government officials who need to have more focused actions when formulating policies for automobile manufacturing industries.
- The facts discovered by this study are useful to industry leaders to judge the impact of various improvements/ changes in regard to KM practice context.
- This research will specifically benefit contemporary researchers in a way that it has tried to capture select dimensions under the broad category of thirteen criteria as role players and hence further research efforts could be directed to replicate the study for another context.
- The results of research reported on KM practices in manufacturing industries may be beneficial to automobile manufacturing industries to increase the productivity.

8.5 RECOMMENDATIONS
This work mainly focuses on KM practices based approach for improving the productivity practices of select manufacturing sector i.e. automobile manufacturing sector with specific relevance to Indian environment. The approach is quite general and can be applied to any specific manufacturing industry. Based on the outcome of research work following recommendations can be made.

- The outcomes of this research will provide a roadmap for Pune region based manufacturing industries, to understand the significance of KM and KM practices, considering environment and future business impact.
- The research has categorically ranked the KM parameters that could be a stepping stone for the planning, execution and implementation of KM practices, for the central India region.
- This research will be highly beneficial for central India’s manufacturing industries, because of the customization of KM principles and practices in Indian context and also with prior consultation with the top line managers of central India region manufacturing units.
- The large scale manufacturing industries can bring business transformation, by implementing and developing measures, by critically reviewing the KM model and criteria, developed in the research.

- For small scale manufacturing industries, this research could be an important source of information regarding KM and KM practices, which could be linked to their expansion plan in near future.

- Information and model developed in the research will be a source of motivation for researchers, industries and the government to take initiatives in the implementation of KM and KM practices.

- The industries intending to implement KM practice can adopt 12 criteria and 128 sub-criteria identified in the research work, so as to develop the objectives and strategies.

- Roadmap for KM practice implementation suggested in the research work can be used by manufacturer to understand and implement KM criteria in sequential manner in their industries.

8.6 Limitations and Scope for further work

The following limitations of this research are worth mentioning.

- Although cross-sectional survey of practices in manufacturing industries has been carried out with statistically significant response rate, but it is not enough to generalize the results in a vast country like India.

- The research is limited to Indian scenario; studies in other countries can be conducted to compare the results obtained.

- Although a sizable number of experts from diverse areas were contacted, but still there is a possibility that ideas from few more experts may have yielded a different framework.

- Considering the limitations of the study future work can be undertaken to overcome them. Some of the areas where further research can be undertaken are as follows.
• The KM practices implementation criterions and sub criterions used in the research are specific to manufacturing industries. With marginal adjustments they can be made generic which can then be used for increasing the productivity in other manufacturing industries as well.

• Despite the fact that the research methodology developed is for the Knowledge Management practices for manufacturing industries, yet some generalizations of the results are possible. Fertilizer, chemical, mining and leathers, plastic, electronics and electrical equipment’s, glass and fibers and other manufacturing sectors may carry out research on similar lines.

8.7 Concluding remarks
This research mainly focuses on KM based approaches for improving the productivity of manufacturing industries with specific relevance to Indian environment. The work identifies KM practices implementation criteria and sub criteria followed by establishing hierarchy of actions for their implementation. Finally, this study has suggested a number of implications and directions for policymakers and manager’s concerned with managing the manufacturing sector. Thus, the findings of this study may be treated as a step further towards achievement of KM practices in the manufacturing sector in Central India & Pan India.