6.1 INTRODUCTION

This chapter shall make an effort to provide a snapshot of the results of the present research work. This chapter consists of six sections. The first section consists of the inferences drawn from the study, second is implications of the study, while the third section throws light on the contributions made to the body of knowledge by the research, fourth section highlights the limitations of the study and directions for future research, fifth section consists of recommendations and suggestions to manufacturing enterprises and policy makers and the final section consist of overall conclusion drawn from the research study.

6.2 INFERENCES DRAWN FROM THE STUDY

The major inferences drawn from the study relating to the testing of the hypotheses formulated is displayed as a snapshot in the following table.

Summary of hypotheses tested are shown in Table 6.1

Table 6.1 Summary of Hypotheses Tested

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Predicted Relationship</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Competence---Concerns</td>
<td>Association</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Practices---Concerns</td>
<td>Association</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Practices---Competence</td>
<td>Association</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Competence $\rightarrow$ Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Concerns $\rightarrow$ Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>Practices $\rightarrow$ Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Concerns $\rightarrow$ Organizational Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H8</td>
<td>Competence $\rightarrow$ Organizational Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H9</td>
<td>Practices $\rightarrow$ Organizational Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
<tr>
<td>H10</td>
<td>Performance $\rightarrow$ Organizational Performance</td>
<td>Positive</td>
<td>Supported</td>
</tr>
</tbody>
</table>

It can be inferred from the above table that all formulated hypotheses have been statistically accepted as explained below:

1. Supply chain management components of supply chain concerns, supply chain competence and supply chain practices are associated with each other.
2. Supply chain components have positive impact on supply chain performance and organizational performance of manufacturing enterprises.


6.3 IMPLICATIONS OF THE STUDY

Supply chain management of manufacturing firms in the UT of Puducherry has been studied using the components of Supply chain concerns, Supply chain competence and Supply chain Practices. These components have been analysed using different variables and these variables vary according to the profile of the manufacturing firms. This study has endeavored to analyse the differences existing among the manufacturing enterprises with different characteristics regarding these variables in an Indianised context. The manufacturing enterprises have been categorized based on their manufacturing characteristics into clusters to better understand their respective nature and features. Understanding the features of manufacturing undertakings with respect to their supply chain will be of immense utility to the policy-makers and practitioners.

Policy-makers can formulate effective and suitable industrial policies to attract adequate investments into the manufacturing sector in the UT, while practitioners in the field of manufacturing enterprises can formulate and alter their strategies to accommodate the ever-changing and dynamic needs of the manufacturing enterprises, in an Indianised context.

The most important aspect of the research is the development of a conceptual model after conducting all necessary tests required to establish its reliability and validity based on the data collected from manufacturing enterprises. This conceptual model can be used as the base for future studies by academicians and researchers.

This research has identified that supply chain performance strongly influences the organizational performance of the manufacturing firms, while the supply chain performance of the manufacturing firms is strongly influenced by supply chain competence and supply chain practices of manufacturing firms. Hence, manufacturing firms concentrating on improving their supply chain competence and supply chain practices can significantly improve their performance as the former impacts the latter indirectly through their impact on supply chain performance. Hence, managers should concentrate on improving the supply chain competence and supply chain practice to enhance the efficiency of their firms.
The scale derived by this study can be utilized by the managers of business firms to assess the supply chain competence of their enterprise and arrive at the strengths and weaknesses of their firms in respect of the different supply chain components and the likely impact of such components on the organizational performance.

6.4 CONTRIBUTIONS OF THIS RESEARCH

The following are contributions of the present research work:

1. The study has utilized many variables to study the SCM practices of manufacturing firms. These variables have tested to be effective reliable and valid in studying the SCM practices of manufacturing firms. These variables can very well be used by future researchers and academicians to conduct detailed studies on the various factors involved in SCM practices.

2. The various tools suggested by this study can be well utilized by the business managers to effectively manage the critical SCM issues.

3. The tools suggested by this study can be utilized by the business managers to boost their knowledge of the various SCM components and the inter-linking relationships of the various dimensions of supply chain competence, supply chain practices and supply chain performance and their likely impact on the organizational performance.

4. This research provides valuable inputs to strengthen academic thoughts and arguments regarding theory and proposition, measurement scale, methods of approaching the research issues and managerial implications of SCM.

5. This research has made immense contribution by aptly developing a theory integrating various aspects related to SCM and the various issues related to supply chain which may significantly affect the performance of a manufacturing enterprise.

6.5 LIMITATIONS OF THE STUDY AND DIRECTIONS FOR FUTURE RESEARCH

Just like most empirical studies, the present study is also subject to certain limitations. The study covers only manufacturing enterprises and does not concentrate on the business firms engaged in services sector. Hence, future research may be undertaken to assess the supply chain competence of business firms engaged in providing services.
Furthermore, this study has been conducted at a macro level, ignoring the micro aspects of individual industries. This study reveals the competence of firms engaged in manufacturing, regarding various aspects of supply chain management, not going into the details of every industry. Hence, future research may be undertaken to analyse the supply chain management issues related to specific industries.

The concept of supply chain management is highly complex and exhaustive. Supply chain issues may vary among firms engaged in the manufacture of different products. Different variables have to be used to assess the supply chain management issues related to different firms engaged in different businesses. It is highly difficult, if not impossible, to include all of such variables in one study. Hence, future studies can focus on analyzing the total quality management practices, supply chain innovation, etc. of manufacturing enterprises. Thus, the scope of study on supply chain management can be magnified by including more supply chain components and variables related to performance of business firms. Similarly, the supply chain management issues may vary from firm to firm based on their size, nature of business, supply chain position, the length of supply chain in which the firm is a component and structure of the channel. For instance, enterprises with large size will have highly complex supply chain networks due to higher level of SCM practices. This shall necessitate such firms to adopt more effective SCM practices.

The study has collected data from a single executive from each manufacturing enterprise. The executive may be specialized in only a single field such as operations, finance, marketing, etc. the use of a single respondent may lead to generation of inaccurate information. Hence, future research shall focus on multiple respondents from each manufacturing firm using the instrument developed in the study. This will lead to a better investigation of the discrepancies in perception among executives within the same firm and the likely effect of such discrepancies on the overall performance of the firms.

6.6 RECOMMENDATIONS OF THE STUDY

Recommendations based on findings from the present research work to manufacturing firms and policy makers of Union Territory of Puducherry are given below:

6.6.1 Recommendations to Manufacturing Firms

1. It is absolutely important for manufacturing enterprises to make their supply chain process effective and efficient. Mere concentration by the firms on the
manufacturing process of their products will not be sufficient. Despite excellent quality of product, comparative advantage enjoyed by competitors in respect of supply chain capability will render the business firms totally unsuccessful. Hence, firms must ensure that their entire supply chain process is effective and efficient.

2. Supply chain competence of business firms can be enhanced only if quality of products manufactured is at its peak. Hence, enterprises should endeavour to enhance its capacity to manufacture the most quality products. Measures such as Six Sigma, Just in Time, Poke yoke, Total Productivity Maintenance and other Quality Management techniques should be implemented by the manufacturing enterprises in true spirit. Only by effecting quality control, firms can enhance their overall performance.

3. Supply Chain Practices of manufacturing firms can be improved through effective interaction and collaboration with customers. Firms should maintain an intimate relationship with their customers, both industrial and end-user customers. Strategies such as effective ERP implementation, RFID, E-Procurement, CRM practices and effective after-sale services shall make the firm command good satisfaction of their customers. Effecting good partnership with customers will render the firms successful in all its endeavours.

4. Manufacturing enterprises must strive hard to enhance their Supply Chain Performance through effective inventory control. Scientific techniques such as Economic Order Quantity and ABC Analysis etc should be implemented effectively to control inventory levels and minimize wastage. Effective inventory management will make the entire supply chain process flawless.

5. Enterprises should ensure that their entire value chain process is of high quality. They should select the best suppliers after exercising due diligence. Similarly, they should formulate the best distribution strategies, by choosing the most appropriate distribution channels and networks.

6. This study has revealed that Supply chain performance strongly influence organizational performance. Supply Chain performance of manufacturing enterprises is influenced largely by Supply Chain Competence, followed by Supply Chain Practices. Supply Chain Competence can be enhanced by providing effective training to employees, utilizing 3PL and 4PL concepts to
concentrate entirely on core activities and outsourcing the non-core activities. The manufacturing enterprises should improve their supply chain practices by monitoring quality of their products and trying to innovate their product line to adopt changes taking place in the environment.

7. Key customers should be identified and special attention should be paid to serve them. Delivery schedule should be strictly adhered to and any delay in delivery should be properly intimated to the customers well in advance. The entire supply chain process should be well integrated and socially responsive to serve the interests of all the stake-holders. The whole supply chain process should be eco-friendly. Supply Chain planning should be formulated strategically on long-term basis and not on short-term basis.

6.6.2 Recommendations to Policy-Makers

1. Manufacturing sector contributes a mere 16% of India’s GDP. The Services sector is the maximum contributor to India’s GDP. However, any country aspiring to generate more growth and employment opportunities must concentrate on improving the manufacturing sector, as this sector is more labour-intensive. The National Manufacturing Policy has been formulated by the Government and this policy shall lead to the formation of many mega industrial zones and Special Economic Zones. These initiatives will result in creation of jobs around 100 million by 2022 and enhance the GDP contribution of manufacturing industry to 25%. This will place our country in par with other countries such as Japan and China having strong manufacturing sectors.

2. Though there are many positives regarding the manufacturing sector in our country in the near future, all is not well and Government has to gear up its efforts to provide a platform for speedy growth of the sector. The Government must improve the infrastructure facilities available in the country. The warehousing facilities have not reached even the minimum level. The Government must initiate efforts to provide warehousing in the organized sector. Similarly, cargo transportation is in an unorganized sector. Most of the truck owners own very few trucks and they operate in least organized manner. These problems act as a serious impediment for the firms to meet their delivery schedule, which is an important aspect of supply chain management. These impediments constrain the entry of Multi-national companies in to our
country. To address these issues, Government must make sincere efforts to improve the infrastructure facilities in the country. It must ensure that all parts of the country are well connected by rail, so that cargo transportation can take place uninterruptedly. Government must take measures to establish adequate bonded warehouses in the country, so that firms can effectively manage their inventory.

6.7 CONCLUSION

SCM is a complex process comprising of many entities and stake-holders, from supplier’s supplier to customers’ customers in manufacturing firms. These entities vary from firm to firm. In today’s competitive scenario, the limited resources available to the firm must be rationally utilized to enhance the performance and efficiency of the firm and provide better value to consumers. This warrants for thorough understanding of the concepts of SCM on the part of executives of manufacturing enterprises.

This research work has made an effort to study the impact of important components of SCM on the performance of the supply chain per se and also on the organizational performance in an Indianised context. The research has also analyse how SCM components and organizational performance variables are different with respect to factors and segments of manufacturing enterprises.

This research work has compare and find out the relationships among characteristics of manufacturing firms with SCM components and organizational performance in Indian Context, particularly in UT of Puducherry, which has not been attempted in previous research studies.

In this research work, manufacturing units are grouped based on SCM components and organizational performance variables and characteristics of every manufacturing units using different statistical tools.

Understanding the profile of manufacturing industries would be useful to the manufacturing industries, executive and policy makers. The policy makers can put forth appropriate manufacturing policies to enhance the growth manufacturing sector that in turn will develop the growth of nations in terms of GDP and employment opportunities. The manufacturing executives can alter their existing strategy and concentrate on critical element of supply chain that will impact the organizational performance of the firm. Finally proposed conceptual model was tested using SEM
that will add value to the existing literature in terms of theory building and testing in Indian context.

It is unfortunate to note that many firms consider supply chain management as synonymous with integrated logistics management or supplier management. However, the fact is that SCM is entirely distinct from these two disciplines. Some organizations have started to realize the importance of SCM. However, they lack sufficient knowledge about the various concepts and components of SCM and the critical SCM aspects. This research work has clearly highlighted vital issues to be concentrated upon by the manufacturing enterprises to enhance their supply chain competence, which will directly enhance their supply chain performance, which shall automatically enhance their organizational performance. Manufacturing undertakings in the Union Territory of Puducherry can certainly improve their competence and efficiency if they implement the model developed in this research and concentrate on the vital issues highlighted by this research work.