7.1 FINDINGS

The present study analyses the performance of three selected ports at Tamilnadu namely Chennai, Tuticorin and Ennore. The study consists of four important stages. The first stage includes the performance of the ports with the help of the import and export traffic at the ports. It is followed by the profile of the importers and exporters and their relationship commitment at the second stage. In the third stage, the facilities, service quality and the performance of the ports have been focused upon. At the fourth stage, the problems at the ports and their impact on the performance of the ports have been discussed.

The confined objectives of the study are (i) to analyse the performance of the ports with the help of traffics (ii) to exhibit the profile of the respondents and their relationship commitment (iii) to examine the respondents’ perception on the facilities at the ports (iv) to measure the service quality at the important ports (v) to analyse the performance of the ports with the help of users’ perception (vi) to evaluate the impact of facilities and service quality at the ports on the performance of the ports (vii) to identify the import and export problems at these ports (viii) to analyse the important discriminant problems among the ports and (x) to examine the impact of the problems at the ports on its performance.
The relevant data on the traffics at the ports and performance at the three ports have been collected from the relevant authorities to process the secondary data with the help of annual and compound growth rate. The primary data from importers and exporters had been collected with the help of pre-tested questionnaire/interview schedule. In total 100 each importers and exporters at the three ports had been determined as the samples for the study. The total response rate among the importers and exporters is 67 percent. Hence the sample size came to 402 respondents. The data collected from the respondents were processed with the help of appropriate statistical tools. The results are given below:

The response rate on the questionnaire among the importers and exporters (respondents) is higher at Chennai and Tuticorin ports than at Ennore port. The most important export-import competency among the respondents at Chennai port is ‘consistency in exports and imports’ whereas at Tuticorin port, it is ‘scientific knowledge in trade’. At the Ennore port, it is ‘scientific knowledge in trade’. Regarding the export-import competencies, significant difference among the respondents at the three ports is identified in all ten variables included in export-import competencies. These ten variables in export-import competencies explain it to a reliable extent. The export-import competency among the respondents at Chennai port is higher than that among the respondents at Tuticorin and Ennore ports.
The variable in entrepreneurial orientation which is highly viewed by the respondents in Chennai port is ‘frequency of products imported/exported’ whereas among the respondents at Tuticorin port, it is ‘nature of products in imports and exports’. Among the respondents at Ennore port, it is ‘degree of carrying out own marketing’. Regarding the perception on variables in entrepreneurial orientation, significant differences among the three groups of respondents have been identified in the case of three out of five variables in entrepreneurial orientation. The variables included in entrepreneurial orientation explain it to a reliable extent. The entrepreneurial orientation among the respondents at Chennai port is higher than that among the respondents at Tuticorin and Ennore ports.

The firm sizes rated as important by the respondents are medium and large firms. The most important firm size among the respondents at Chennai port is large firm whereas among the respondents at Tuticorin port, it is medium firm. Among the respondents at Ennore port, it is small firm. The export - import experience among the respondents has been measured with the help of four variables. All the four variables in export import experience, explain it to a reliable extent. Regarding the level of export - import experience, significant differences among the respondents at the three ports have been identified. To sum up, the level of export - import
experience among the respondents at Chennai port is higher than among the respondents at the other two ports.

The variables in affective commitment which is highly viewed by the respondents in Chennai port is ‘associated with the customer’, where as among the respondents in Tuticorin port, it is ‘positive feeling towards the customers’. Among the respondents in Ennore port it is also the ‘positive feeling towards the customer’. The level of variables is ‘affective commitment’. Significant difference among the respondents in three major ports have been identified. The level of affective commitment among the respondents in Chennai port is greater than among the respondents in Tuticorin and Ennore port.

The variable in value-based commitment which is highly viewed by the respondents at Chennai port is ‘receiving a fair value from this relationship’ whereas among the respondents at Tuticorin port, it is ‘benefits of the firm from relationship are greater than the costs’. Among the respondents at Ennore port, it is ‘the performance of the customers in the areas that matter is always up to the necessary standard’. The four variables included in ‘value-based commitment’ explain it to a reliable extent. In total, the level of value-based commitment among the respondents at Chennai port is higher than that in the other two ports.
The variables in locked in commitment which are highly viewed by the respondents at Chennai port is ‘it would be very difficult for us to find a replacement for this supplier’ whereas among the respondents at Tuticorin port, it is ‘considering everything, we actually have no alternative to the relationship’. Among the respondents at Ennore port, it is ‘changing from this customer to another would cost us too much’. The three variables included in locked-in commitment’ explain it to a reliable extent. In total, the level of locked in commitment among the respondents at Chennai port is higher than that at the other two ports.

The level of ‘obligation-based commitment’ among the respondents is explained by three variables to a reliable extent. Regarding the level of variables in obligation-based commitment, significant differences among the respondents at all three ports have been identified. The level of ‘obligation-based commitment’ among the respondents at Chennai port is higher than that among the respondents at the other two ports.

The highly viewed behavioural commitment variables among the respondents at Chennai port is ‘we have strengthened our ties with the supplier during the course of our relationship with them’ whereas among the respondents at Tuticorin port, it is ‘we have made a major investment in this relationship’. Among the respondents at Ennore port, it is ‘our firm puts considerable effort and investment into the
business’. Regarding the perception on variables in behavioural commitment, significant difference among the three groups of respondents has been seen in all the three variables. Totally, the level of behavioural commitment among the respondents at Chennai port is higher than that among the respondents at the other two ports.

The highly viewed components in ‘relationship commitment’ among the respondents at Chennai port is ‘affective commitment’ whereas among the respondents at Tuticorin port, it is ‘behavioural commitment’. Among the respondents at Ennore port, it is also ‘behavioural commitment’. Regarding the perception on relationship commitment, significant difference among the three groups of respondents has been noticed in all the five components in ‘relationship commitment’.

The important discriminant profiles of respondents at Chennai and Tuticorin ports is ‘export import experience’ and ‘export import competencies’ which are higher at Chennai port compared to Tuticorin port. The important discriminant profile of respondents at Chennai and Ennore ports are ‘export import competencies’ and ‘export import experiences’ which are higher among the respondents at Chennai than those at Ennore port. Among the respondents at Tuticorin and Ennore ports, the important discriminant profiles are ‘export import experience’ and ‘entrepreneurial orientation’ which are higher at Tuticorin port than at Ennore port.
The cargo traffic of imports is identified to be high in Chennai port which is followed by Tuticorin port. The significant annual growth rate of cargo traffic of import is noticed in Chennai and Tuticorin ports. The compound growth rate of cargo traffic of imports is noticed to be higher in Chennai port. Regarding the cargo traffic of import, the significant difference among the three ports has been noticed.

Regarding the cargo traffic on export, the significant difference among the three ports have been noticed. The significant annual growth rate of cargo traffic of export is identified in all the three ports. Higher mean score on cargo traffic is identified in Chennai and Tuticorin ports. Higher consistency in cargo traffic of export is also identified at Chennai port.

There is no cargo traffic of trans-shipment in Tuticorin and Ennore ports. At Chennai port, there is a significant fall in the cargo traffic on trans-shipment since the annual growth rate is negative. Regarding the container traffic of import, higher traffic is seen at Chennai port followed by Tuticorin port whereas there is no traffic at Ennore port. Higher consistency on container traffic of import is seen at Chennai port. The higher significant annual growth rate of container traffic of import is noticed in Tuticorin port. Regarding container traffic of imports, the significant difference among the Chennai and Tuticorin ports is identified.
Regarding the container traffic of export, the significant difference among the Chennai and Tuticorin ports is identified. Higher mean score is noticed in Chennai port. The significant annual growth rate of container traffic of export is identified in both Chennai and Tuticorin ports. At the Ennore port, there is no container traffic on export during the study period.

Regarding container traffic of total imports and exports, higher traffic is seen at Chennai port than at Tuticorin port. Higher consistency is identified at Chennai port. The significant annual growth rate of container traffic of total import and export is identified in both Chennai and Tuticorin ports. Regarding the container traffic of total import and export, significant difference has been noticed among the two ports at Chennai and Tuticorin.

Regarding the container traffic of import in TEU, higher traffic is seen at Chennai port than at Tuticorin port whereas there is no traffic at Ennore port at all. A significant annual growth rate is identified at both the ports. Higher compound growth rate is noticed at Chennai port. There is a significant difference among the Chennai and Tuticorin ports regarding the container traffic of import in TEU.

Regarding the container traffic of export in TEU, there is no traffic at Ennore port at all, whereas higher traffic is identified at Chennai port than at Tuticorin port. Significant annual growth rate is
identified at Chennai port. Regarding the container traffic on exports in TEU, significant difference among the Chennai and Tuticorin ports is noticed. Regarding the container traffic of total import and export in TEU, higher traffic is identified at Chennai port than at Tuticorin port. Higher significant annual growth rate is noticed at Tuticorin port than at Chennai port. Significant difference among the Chennai and Tuticorin ports is noticed in the case of container traffic of total import and export in TEU.

As regards the POL crude and product traffic, higher traffic is noticed in Chennai port than in the other two ports. Higher consistency is also seen at Chennai port. Significant annual growth rate of POL crude and product traffic is seen in all the three ports. Higher compound growth rate is noticed at Ennore port. There is a significant difference among the three ports regarding the POL crude and product traffic.

Regarding the iron ore traffic, higher traffic is seen at Chennai port followed by Ennore port. Significant annual growth rates are seen in all the three ports regarding iron ore traffic and higher compound growth rate is seen at Ennore port. There is a significant difference among the three major ports in the iron ore traffic.

As regards the finished fertilizer traffic, higher mean traffic is seen at Chennai port than at Tuticorin port whereas there is no traffic
at Ennore port at all. Higher significant annual growth rate of finished fertilizer traffic is seen at Tuticorin port. Regarding the finished fertilizer traffic, there is a significant difference seen among the Chennai and Tuticorin ports.

Regarding the raw material fertilizer traffic, higher mean traffic is identified at Tuticorin port than at Chennai port whereas there is no traffic at all at Ennore port. There is no significant annual growth in the raw material fertilizer traffic at both Chennai and Tuticorin ports. Whereas a significant difference among the Chennai and Tuticorin ports is seen in the raw material fertilizer traffic.

Higher mean of thermal coal traffic is seen at Ennore port than at Tuticorin port. Higher consistency in thermal coal traffic is identified at Tuticorin port. There is a significant negative annual growth rate of the traffic seen at Chennai port. Regarding this traffic, significant difference among the three major ports have been noticed.

The cooking coal traffic is seen at Chennai port only. The significant annual growth rate of cooking coal traffic has been identified at Chennai port during the period of the study. Regarding the other commodities traffic, higher mean traffic is noticed at Chennai port than at Tuticorin port. Significant annual growth rate in other commodities traffic has been identified in Chennai and Tuticorin ports. There is no other commodities traffic at Ennore port during the
period of the study. Regarding the other commodities traffic, a significant difference among the Chennai and Tuticorin ports has been identified.

Regarding the total goods traffic, higher mean traffic is seen at Chennai port followed by Tuticorin port. Higher consistency is seen in the case of Tuticorin port regarding the total goods traffic. Significant annual growth of other commodities traffic has been identified in all the three ports. Higher compound growth rate is identified at Chennai port. Regarding the total goods traffic, significant difference among all the three ports has been noticed.

In the case of vessel traffic with dry bulk, higher mean traffic is identified at Chennai port, followed by Tuticorin port. Higher consistency in vessel traffic is noticed at Ennore port. Significant annual growth rates are identified in the case of Tuticorin and Ennore ports. Regarding the vessel traffic with dry bulk, the significant difference among all the three ports has been noticed.

Regarding the vessel traffic with liquid bulk, higher mean traffic is noticed at Chennai port and lesser mean is seen at Ennore port. Regarding the vessel traffic with liquid bulk, significant difference among the three ports has been seen. Significant annual growth rate of vessel traffic with liquid bulk is identified at Tuticorin port only.
The high mean of vessel traffic with break bulk is seen in the case of Tuticorin port. Significant annual growth rate of vessel traffic with break bulk is identified in both Chennai and Tuticorin ports. There is no vessel traffic with break bulk at Ennore port. Regarding the vessel traffic with break bulk, significant difference among the three ports has been identified.

Higher mean of vessel traffic with containers, is noticed at Chennai port than at Tuticorin port whereas there is no vessel traffic with container at Ennore port at all. Significant annual growth rate is noticed in both the ports. The compound growth rate of vessel traffic with containers is slightly higher at Tuticorin port than at Chennai port. Regarding the vessel traffic with containers, there is a significant difference noticed between the two ports.

The mean of total vessel traffic at Chennai is higher than Tuticorin and Ennore ports. Significant difference among the three ports has been identified regarding the total vessel traffic. Significant annual growth rate is noticed at all the three ports. The compound growth rate of the vessel traffic at Tuticorin port is higher than at the other two ports.

Regarding the storage facilities, the open area is identified as higher at Chennai port, followed by Tuticorin port. There is no transit shed and warehouse facilities at Ennore port. The traffic shed and
warehouse facilities at Chennai port are higher than at Tuticorin port. The performance of the storage facilities at Chennai is higher than at the other two major ports.

The facilities at Chennai port which are highly perceived by the respondents are ‘administrative control’ and ‘inter modal transport’ whereas among the respondents at Tuticorin port, these are ‘link with railways’ and ‘administrative control’. Among the respondents at Ennore port, these are ‘inter modal transport’ and ‘access to the port’. Regarding the perception on ‘facilities at port’, significant differences among the respondents at the three ports have been identified in the case of ‘location is important sea routes’, ‘link with railways’, ‘pilotage’, ‘towage’, ‘link with roadways’, ‘storage facilities’, ‘mooring’, ‘loading and unloading’, ‘supply’, ‘administrative control’ and ‘added value operations’.

The important facilities at port narrated by the factor analysis are ‘port services’, ‘connection with hinterland’, ‘geographical location’ and ‘logistics services’. The facilities included in the above said important facilities explain it to a reliable extent. The highly perceived important facilities at Chennai port is ‘logistics services’ whereas at Tuticorin port, it is ‘geographical location’. Among the respondents at Ennore port it is ‘geographical location’. Regarding the perception on important port services, significant differences among the respondents at the three ports have been noticed. The level of perception on
important port facilities are identified as higher at Chennai port than at Tuticorin and Ennore ports.

The important discriminant facilities among the Chennai and Tuticorin ports is ‘logistics services’ which is higher at Chennai port than at Tuticorin port. The important discriminant facilities among the Chennai and Ennore ports are ‘logistic services’ and ‘connection with hinterland’ and these two facilities are highly perceived at Chennai port than at Ennore port. The important discriminant facilities among the Tuticorin and Ennore ports are ‘logistic services’ and ‘port services’ which are highly perceived at Tuticorin port than at Ennore port.

The service quality variables highly perceived by the respondents at Chennai port are ‘prompt information on any problems’ and ‘Employees possess skills / knowledge’ whereas at Tuticorin port, these are ‘trustworthy’ and ‘prompt response’. Among the respondents at Ennore port, these are ‘settlement of claims quickly’ and ‘prompt response’. Regarding the respondents’ perception on service quality variables, significant differences among the three ports have been identified in the case of ‘appearance of staff’, ‘delivery on promise’, ‘total transit time for shipment’, ‘modern cargo handling equipment’, ‘employees possess skills / knowledge’, ‘automation’, ‘gives value added services’ and ‘informs promptly of any problem’.
The important service quality factors in ports are tangibles, reliability, responsiveness, assurance and empathy. The variables in the service quality factors explain it to a reliable extent. The highly expected service quality factor among the respondents at Chennai port is ‘tangibles’ whereas among the respondents at Tuticorin port, it is ‘empathy’. Among the respondents at Ennore port, it is ‘assurance’. Regarding the level of expectation on service quality factors, there is no significant difference among the three ports.

The highly perceived service quality factor among the respondents in Chennai port is ‘empathy’ whereas among the respondents at Tuticorin port, it is ‘assurance’. Among the respondents in Ennore port, it is ‘empathy’. Regarding the perception on service quality factors at port, significant difference among the respondents at the three ports have been identified in the perception on ‘tangibles’, ‘reliability’, ‘assurance and empathy’.

The service quality gap on all the five service quality factors are in negative. Higher gap identified among the respondents at Chennai port is ‘responsiveness’ whereas at Tuticorin port, it is ‘reliability’. Among the respondents at Ennore port, it is ‘assurance’. Regarding the service quality gap, significant differences among the three group of respondents have been noticed in ‘reliability’, ‘responsiveness’, ‘assurance’ and ‘empathy’.
The important discriminant service quality factors among the respondents at Chennai and Tuticorin ports based on their level of perception are responsiveness, and ‘empathy’ which are higher at Chennai port than at Tuticorin port. Among Chennai and Ennore ports, the important discriminant service quality factors are ‘assurance’ and ‘tangibles’ which are higher at Chennai than at Ennore port. The important discriminant service quality factors among the Tuticorin and Ennore ports are ‘assurance’ and ‘tangibles which are higher at Tuticorin compared to Ennore port’.

The highly perceived variables related to the usage of IT at Chennai port terminal, among the respondents are ‘stacking area capacity’ and ‘insurance’ whereas among the respondents at Tuticorin port, these are ‘insurance’ and ‘faster turnaround of containers’. Among the respondents at Ennore port, these are ‘faster turnaround of containers’ and ‘logistic management’. Regarding the perception on usage of IT at port terminals, significant difference among the respondents at the three ports have been identified in the case of ‘trade and transport documentation’, ‘international trade finance’, ‘insurance’, ‘stacking area capacity’ and ‘accuracy of information’. The included variables in usage of IT at port terminals explain it to a reliable extent. The level of perception on IT usage at Chennai port is higher than at the other two ports.
The performance variables highly perceived among the respondents at Chennai port are ‘tracing’, and ‘service charges’ whereas among the respondents at Tuticorin port, these are ‘scheduling flexibility’ and ‘pick up and delivery service’. Among the respondents at Ennore port, these variables, are ‘service charges’ and ‘quality of operating personnel’. Regarding the perception on performance variables at the ports, significant difference among the respondents at the three ports have been noticed in fifteen performance variables out of twenty four. All the twenty four variables in the performance of the port explain it to a reliable extent. Higher level of perception on the performance of the port is seen among the respondents at Chennai port than in the other two ports.

The important port facilities found to be significantly and positively influencing on the performance of the port among the respondents at Chennai port are ‘port services’, ‘connection with hinterland’ and ‘logistic services’ whereas at Tuticorin and Ennore ports, these are ‘port services’ and ‘logistic services’. The changes in the perception on important port services explain the changes in the ‘performance of the port’ to a higher extent among the respondents at Chennai port than at Tuticorin and Ennore ports.

The service quality factors significantly and positively influencing on the performance of the port among the respondents at Chennai port are tangible, ‘reliability’ and ‘responsiveness’ and those
among the respondents at Tuticorin and Ennore ports, are ‘tangibles’ and ‘reliability’. The changes in the perception on the service quality factors explain the changes in the perception on performance of the port at a higher extent among the respondents at Chennai port than at Tuticorin and Ennore ports.

The highly perceived problems in exports and imports among the respondents at the Chennai port are ‘competition’ and ‘payment and collection’ and those among the respondents at Tuticorin port, are ‘payment and collection’ and ‘competition’. Among the respondents at Ennore port, these are ‘payment and collection’ and ‘language and communication’. Regarding the perception on the problems at ports, significant differences among the three groups of respondents have been noticed in the case of fourteen out of twenty one variables.

The important problems among the respondents identified by the factor analysis are market, procedure, finance, logistics, and opportunities related problems. The problems in the above said important problems explain it to a reliable extent. The important problems highly viewed by the respondents at Chennai port are ‘market’ and ‘procedure’ related problems whereas among the respondents at Tuticorin port, these are ‘market’ and ‘finance’ related problems. Among the respondents at Ennore port, these are ‘logistics’ and ‘market’ related problems. Regarding the perception on important problems, significant differences among the three groups of
respondents have been noticed in the case of all the five important problems.

The important discriminant problems among the respondents at Tuticorin and Chennai ports are ‘logistics’ related problems and it is higher at Tuticorin port than at Chennai port. The important discriminant problems among the Ennore and Chennai ports are ‘logistics’ and ‘market’ related problems which are identified as higher at Ennore port than at Chennai port. Regarding the Ennore and Tuticorin ports, the important problems are highly perceived by the respondents at Ennore port than by those at Tuticorin port. The important discriminant benefit among these two ports are ‘opportunities’ and ‘logistics’ related problems which are identified as higher at Ennore port than at Tuticorin port.

Higher frequency of problems at Chennai port is seen in ‘strong international competition’ whereas at Tuticorin port, it is ‘difficulty to identify capable collaborations in host country’. At the Ennore port, it is ‘lack of information about overseas distributors’. Regarding the level of frequency of problems, significant differences among the three ports have been identified in seven out of eight variables related to frequency of problems. The included variables in problem frequency explain it to a reliable extent. Higher level of frequency of problems is identified at Ennore port than at Tuticorin and Chennai ports.
The important problems that significantly and negatively influence on the performance of Chennai and Tuticorin ports are ‘procedure’ and ‘logistics’ whereas at Ennore port, these are ‘procedure’, ‘finance’ and ‘logistics’. The changes in the perception on important problems explain the changes in the performance of ports at a higher rate at Chennai port than at Tuticorin and Ennore ports. The changes in the perception on problem dimension explain the changes in the perception on the performance of ports to a higher extent at Ennore port than at Chennai and Tuticorin ports.

7.2 RECOMMENDATIONS

The major ports in Tamilnadu are less attractive than their counterparts in the other states of India. Out of the three major ports, the performance of Chennai port is better than Tuticorin and Ennore ports. The low performance of the ports is caused by their relatively less port facilities, poor service quality and inefficient processes and procedures. This study’s findings are consistent with the previous findings done by Chandrasekaran and Kumar, (2004)¹ and Yen and Chia, (2008)² which indicates that India’s ports are relatively inefficient. Therefore, it is essential for the nation to strengthen its container - handling operations, and make them more efficient and

smooth functioning. The present study makes several recommendations for implementation for future development and progress. These are discussed in the following pages.

First, in terms of port facilities, the analysis indicates that the operating equipments at these ports are completely insufficient, including the number of quayside gantries, yard gantries, and straddle carriers. The ports’ management must come up with a long-run plan for equipment improvement and replacement, and Indian government needs to accelerate its efforts to adjust and upgrade the infrastructure and facilities at its ports. Building on dock rail facilities should be one of the improvements considered because rail yards are correlated with higher port productivity and would attract large carriers (Kaiser et al., 2006)3.

Since the service quality gap is negative in all service quality factors in all the three ports, the level of facilities and service quality at the ports are not upto the level of expectation of the users. This study suggests that the port managers should consider carefully each of the service quality factors and findout the extent to which they should work on them. Identifying and addressing individual dimensions, however, might not achieve much in the long run – it could be that more fundamental approaches need be considered

(Hammer and Champy, 1994), resulting in restructuring both the service offered by the ports and the way it is offered and it could be the general trend towards privatization and liberalization of the port sector.

Port managers must recognize that reliability, assurance and responsiveness are significant determinants to the overall performance of port service, as seen from the result of the study, which supports the earlier research in this area (Lobo and Jain, 2002; Ugboma and Ugboma, 2004). These three dimensions are, in effect, critical in providing quality service to the port customers. Therefore, it is a prerequisite to have support-staff provide services accurately and quickly to front line employees, as well as having knowledgeable and service oriented employees to serve port customers better.

In order to improve the service quality at the ports, it is necessary to contact the employees regularly and review their service experiences. Port users consider categories of service attributes in judging the quality of the port service. With the knowledge of port service quality dimensions, port managers can judge how well the port

or employees are performing on each dimension and identify the weakness in order to effect improvements.

The problems in international trade and the problems at the ports have their own negative influence on the performance of the port. Hence, the port managers have to set up a cell at their port in order to examine the users’ problems and search the ways in which the problems can be solved.

Countries that want to maintain sustainable economic growth rely on the availability of infrastructure and an efficient transport system (Water, 1999). The study recommends the port authorities to improve the ports’ road/Information Technology infrastructure. Specifically, major ports should be linked with highways to expedite the movement of cargo. The government should also improve its road infrastructure to effectively accommodate the increasing cargo volume. If the ports want to maintain or even increase its competitive growth in cargo volume, they need to have at least an acceptable, if not robust, infrastructure, as the country’s existing infrastructure is struggling, at present, to meet the increasing new demands of growth.

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7.3 SUGGESTION FOR FUTURE RESEARCH

The present study suggests some directions for further research. Future studies may analyze the logistic sectors alone. The productivity of container ports and distribution stations dependent on their land and equipment and the efficiency with which workers are deployed. Hence, future studies may focus on this aspect. The role of information technology in port performance may be studied in future. The users’ perception on port services has a wide scope for future research on the service quality of port services, relationship between service quality and performance of the port and the service quality gap of ports. The future study may extend its scope to the national level.

7.4 CONCLUSION

The present study concludes that the performance of Chennai port has highest over Tuticorin and Ennore port regarding cargo traffic, container traffic, storage facilities, port facilities, logistics services, level of export and import experience and lesser import and export problems.

The development of the port and shipping services is a prerequisite for sustained growth of the economy. Availability of adequate ports and shipping services is also considered a key to foreign direct investment. The highlight of the study confirmed that the ports has suffered from transport bottlenecks mainly because of budgetary constraints and managerial inefficiencies. To overcome
this handicap, conscious efforts need to be made to improve work efficiency and availability of modern equipment facilities within Tamilnadu major ports. The overall environment becomes more conducive to the consumers with better infrastructure facilities in the port.