Chapter VI
Suggestions, Findings and Conclusion
CHAPTER VI

FINDINGS, SUGGESTIONS AND CONCLUSION

6.1 FINDINGS

The primary aim of this study is to analyze the functions performed by the stake holders; the operations involved in export and import; to compare the availability of resources; to evaluate compliance level of cargo handling and to benchmark the performance of Chennai air cargo handling with Bengaluru air cargo handling. The first part of observations is through secondary data, a theoretical discussion based on relevant literature on airports and their functions, concept of air cargo operation, business models, screening procedures, industry’s growth, cargo thefts and pilferage, performance rate, airport planning and management, economics of air cargo operations etc from books, journals and magazines.

The Second part is the collection of primary data directly from stakeholders and employees through sampling method and personal interviews and observation wherein the benchmarked airport’s level of infrastructure, manpower availability, congestion, equipments available, quality of work, information systems used, security and surveillance etc are observed.

The present chapter takes up with the findings and suggestions based on the analysis made in this study.

The Chennai International Airport is under the control of Airport Authority of India and its handling operations are handled by two operators, namely Air India and M/S Bhadra, an agent on behalf of Airport Authority of India. The private operator vie with the government owned Air India in the business, still Chennai air cargo as a whole lagging behind in its performance.
The Bengaluru International Airport is a PPP Greenfield Airport, 330 kms away from Chennai and its cargo operations are handled by AISATs and Menzies, both private handlers under BOOT (Build, Own, Operate, Transfer) model.

The whole process of air cargo handling has been segmented in ascending order and facilities available, services rendered, equipments and manpower availability and quality of services are compared.

6.1.1 Findings from the Study

1. Acceptance of Cargo

The percentage of positive response for the following activities at Chennai air cargo handling:

i) The availability of sufficient space for parking of cargo truck is very poor (1.6 percent).

ii) The quality and availability of counter service is very poor (3.1 percent).

iii) Weighment and volume check done is not to the standard (71.3 percent).

iv) Handling of perishable goods, valuables, special cargo is also poor (11.8 percent).

v) Pilferage and damage over at ramp area is more than that at Bengaluru airport. (Chennai 17.3 percent, Bengaluru 5.83 percent).

vi) The available manpower to handle operations at the ramp area is very poor (2.8 percent) while Bengaluru has got 96.1 percent of manpower availability.
2. **Loading of Cargo**

The percentage of positive response for following activities at Chennai air cargo handling:

i) Palletization of cargo is not to the standard (89.47 percent).

ii) The quality of loading equipments is very poor (8.3 percent).

iii) The availability of trained staff to handle cargo at loading area is not to its requirement (86.6 percent).

iv) The quality of ULD area, handling, use and performance are not to its standard (71.3 percent).

v) The availability of cold storage for perishable goods is very poor (4.3 percent) (only a shed is maintained).

vi) The respondents rated the quality of export warehouse is nil (0 percent).

The parameters mentioned above for Bengaluru air cargo is 100 percent except the quality of loading equipments (94.17 percent).

3. **Cargo Documentation**

The documents prescribed for both import and export is uniform throughout the country. They are prescribed by concerned authorities like Customs, Airport Authority of India, Directorate of Foreign Trade etc. In this study, usage and performance is taken into account. The percentage of positive response for the following activities at Chennai cargo handling is as follows:

i) On time release of cargo manifest is important indicator of the performance of air cargo handling. Chennai air cargo attracts only 93.7 percent.
ii) Checking of airway bill before flight departure is very important task which avoids damage controlling, duplication of work, revenue loss to the airlines and shippers. The performance rating for Chennai air cargo is only 95.3 percent.

4. **Release of Cargo**

It is when palletization completed, formalities of customs are over, and the goods are ready for loading in the aircraft. It involves a lot of procedures and formalities that are uniform for both airports. Apart from procedures, the handling of ULD in the process is very important. The speed at which it is handled, working condition of ULD etc. play a major part.

The percentage of positive response for the following at Chennai air cargo

i) The available equipments for the purpose is very poor (3.9 percent).

ii) The working conditions of ULD’s are not to the standard (85.4 percent).

The usage of ULD is good (100 Percent) In Bengaluru air cargo handling the parameters are 100 percent except working conditions of ULD (95.3 percent).

5. **Warehouse Infrastructure**

The percentage of positive response and for Chennai air cargo handling

i) The quality of warehouse infrastructure is rated as nil (0 percent)

ii) The quality of warehouse operation is also rated as nil (0 percent)

iii) The number of available ETV is far below the Standard 20 percent.

In Chennai air cargo, warehouse not in its true sense is not available. A small shed is used as warehouse which cannot be termed as warehouse.
But in Bengaluru air cargo international standard warehouses are maintained with modern facilities. So it naturally attracts full response (100 Percent).

6. **Offloading of Cargo**

Offloading of cargo in import is also deserved for equal treatment at par with export cargo. The revenue from the sectors are different, each has its own privileges.

The percentage of positive response for Chennai air cargo handlings:

i) Special cargo occupies Special position in cargo handling. The priority given to special cargo is very poor (16.5 percent).

ii) Since the priority is not given its due, the quality of import handling is also very poor (6.7 percent).

iii) The respondents rated the availability of manpower at import handling at nil (0 percent)

Various reasons have been attributed to their dismal state of affairs in import cargo handlings, but are curable. But Bengaluru air cargo show a robust rating of 100 percent except overall quality that is put at 92.9 percent.

7. **Storage of Cargo**

Storage of cargo is a very important task in maintaining the quality of goods. If the quality is deteriorated, the value of goods also goes down to the deterioration of the money and honour of Owners / Shippers.

The percentage of positive response for Chennai cargo handling:

i) The storage period for perishable should be at standard level. If the goods are not sufficiently stored or partly stored, the goods will
perish and value will be reduced. In Chennai sufficient storage period is only 78.37 percent.

ii) The overall performance, quality of the Chennai storage facilities are forced rating at Nil (0 percentage). The ratings bring forth the pitiable condition in cargo storage in Chennai. While it is so, the Bengaluru cargo handling garners cent percent rating except in storage period.

8. **Ramp Handling**

On time performance of an Airline is very important for them. It centers around connectivity with other aircrafts, other destination and delivery of goods. It brings in revenue, performance rating and goodwill of the Airlines. On time performance attracts international air shipments.

The ranking of Airlines is partly depend on its on time performance.

**The percentage of positive response for Chennai air cargo handling:**

ULD should be readied before the arrival of aircrafts. Since every drops of a second is valuable, the aircrafts cannot wait for the arrival of ULDs.

i) The parking of ULDs before the arrival of aircrafts is not standard (84.6 percent)

ii) Manpower availability for ULD handling at airside is poor (66.5 percent)

iii) Delays in parking of ULDs and insufficient manpower to handle ULDs airside naturally drag down online performance of airlines which attracts poor rating (87.4 percent).

Delay in aircraft operation creates a chain of repercussions like delayed departure, losing connectivity, change of pilots, exceeding slot time, demurrage etc. In Bengaluru air cargo handlings the parameters are almost 100 percent.
Table 6.1
Overall performance comparison of Chennai and Bengaluru Cargo Handling Operations

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Chennai</th>
<th>Bengaluru</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ramp Handling</td>
<td>79.5</td>
<td>99.7</td>
</tr>
<tr>
<td>2</td>
<td>Infrastructure availability</td>
<td>0.8</td>
<td>98.6</td>
</tr>
<tr>
<td>3</td>
<td>Storage facility of cargo</td>
<td>53.7</td>
<td>98</td>
</tr>
<tr>
<td>4</td>
<td>Offloading of cargo</td>
<td>7.7</td>
<td>97.6</td>
</tr>
<tr>
<td>5</td>
<td>Warehouse Infrastructure availability</td>
<td>6.7</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Ontime release of cargo</td>
<td>48.1</td>
<td>98.1</td>
</tr>
<tr>
<td>7</td>
<td>Documentation</td>
<td>94.5</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>Loading of cargo</td>
<td>43.3</td>
<td>99</td>
</tr>
<tr>
<td>9</td>
<td>Level of acceptance of cargo</td>
<td>18.9</td>
<td>98.4</td>
</tr>
</tbody>
</table>

Not even in a single category, Chennai Air cargo has achieved 100 percent perfection. Overall infrastructure availability is almost nil (0.8 percent) and warehouse infrastructure availability is only 6.7 percent.

Though documentation, procedures are prescribed by authorities, its lapses errors and omissions drag down its rating to 94.5 percent.

Owing to some adverse factors, the general acceptance level of cargo is placed at 28.9 percent.

Ramp Handling 79.5 percent, storage facilities 53.7 percent, on time release of cargo 48 percent etc., force the satisfactory level of Chennai air cargo only to 40 percent, which is far below than half way from the standards. It is an eye opener to improve and flourish.
So the test of significance concludes that there is a significant difference between Chennai and Bengaluru i.e., 98.7 percent of people were satisfied about the process of cargo handling in Bengaluru. So the hypothesis is rejected.

The percentage positive response echoed by Chennai and Bengaluru respondents throw light on each specimen’s position. It is to be taken note that both places are not evaluated by the same set of respondents.

While analyzing the reason for the poor satisfactory level of respondents for Chennai air cargo handling, the following impediments come to fore.

A comparison on observation and interview has been made about Chennai cargo handling with Bengaluru cargo handling for better understanding and analysis of the problems conceived.

6.2 SUMMARY OF THE STUDY

1. Airport

Chennai Airport is one of the oldest airports in India, situated within Metropolitan area, constructed with limited land availability and the scope for further expansion is limited. Even approach road to Track Dock area is very narrow and congestion occur during peak hours.

Bengaluru Airport is a Greenfield airport situated outside city area and constructed with modern facilities. The scope for expansion is also great. There is no congestion at Track Dock area.

2. Truck Dock Area

In Chennai air cargo, the allocated area for truck docking is only 4000 sq.m each for Air India and Bhadra, the agent of Airport Authority of India. This minimal area is overcrowded with trucks during peak hours and cause traffic jams and congestion.
In Bengaluru air cargo, there is no congestion at Truck Dock area as it has vast area for parking of even heavy trucks.

3. **Overall Infrastructure**

The positive response for overall infrastructure facility at Chennai air cargo handling is only 0.8 percent. This shows the present situation prevailing there, worn out equipments, manual pallet jacks, obsolete weighing machines, ill – lit buildings etc., mark the backwardness of Chennai air cargo. The poor counter service, least manpower availability, poor performance of weight and volume check, poor handling of special cargo and overall poor acceptance level of cargo speak volume of present situation at Chennai air cargo.

In Bengaluru air cargo, all the facilities are available. Two private agents, AISATS (Singapore) and Menzies (Australia) are handling and maintaining their infrastructure.

4. **X-ray and Screening Machines**

In Chennai air cargo, X-ray and screening machines used are obsolete and are poorly maintained. The number of X-ray machines available does not match with its requirements and in turn the number of staff available does not match with number of machines. Odd dimension and heavy cargo, weighing more than 800 kgs are not screened but only physically checked. Slow movement of cargo screening piles up cargo and adds to congestion.

In Bengaluru air cargo, sufficient number of screening machines are available. Three-dimensional X-ray machines are available.

5. **Manpower**

In Chennai air Cargo, Manpower set up is outsourced from external contractors who are unable to supply workers on time and as per requirement. Frequent shortage of manpower for palletization and offloading causes delays and demurrage and also affect the on time performance of airlines.
There is not uniform offs and breaks for the contract workers who are controlled by different contractors / agencies and such unsynchronized breaks affect the cargo handling.

Specialised, experienced, trained operators are not available for special equipments. Staff to handle dangerous goods, radioactive goods, perishable goods are also not available.

In Bengaluru air cargo, AISATS has its own Air Freight Terminal which is Good Distribution Practices (GDP) and Transported AISAT protection association (TAPA) Class A, certified one. They have sufficient manpower to handle export palletization / import offloading and transshipment of cargo. Workers are well trained to operate Automated storage and Retrieval System ( ASRS ), Elevated Transfer Vehicle ( ETV ), Very Narrow Aisle ( VNA ) vehicle etc.,

6. Warehouse Facilities

In Chennai air cargo, limited space is available for storage of general cargo and perishable goods. The space crunch here is acute. Automative Storage and Retrieval Facilities are not available for export. Air India does not have ETV, but Airport Authority of India does have ETV.

In Bengaluru air cargo warehouse, a wide range of equipments like ASRS, ETV. VNA are use, Dangerous Goods room, live stock room, strong room, perishable cargo room, cold rooms, unaccompanied baggage room, vulnerable cage, courier Terminal are available.

7. Security and surveillance

In Chennai air cargo, CCTV coverage in places like import receiving area, ULD staging area is not available. Lack of flood lights at important places promotes thefts and pilferage.

In Bengaluru air cargo, CCTV coverage is installed at all places like ramp area, screening area, export and import area, storage area, ULD area,
dangerous goods area, Pharma area, perishable area etc., Highly trained and specialized security staff are placed at all strategic areas.

8. Parking Bays

In Chennai air cargo, only three parking bays are available. The volume of air shipment does not match with the number of freighter bays.

In Bengaluru air cargo, seven parking bays are available and the bays are capable of handling wide body freighters at a time.

9. Transshipment area

In Chennai air cargo separate area for transshipment is not available which causes delays and demurrage, in Bengaluru it is available.

10. Safety

In Chennai air cargo, safety related sign boards are displayed at few places only.

i) Fire extinguishers at vantage points are not available.

ii) Dangerous goods Regulation storage area is also not available.

iii) Emergency contact numbers are not displayed at all operational area.

In Bengaluru air cargo, fire hydrants and fire extinguishers are kept at various vantage points. In DGR, separate racks for different goods are available. Emergency response numbers are displayed at every vantage point.

The above discussed points strongly support the view that Chennai airport has no modern cargo terminal management system and has no experienced technocrats to man the whole operation.
6.3 SUGGESTIONS AND RECOMMENDATIONS

Chennai Air Cargo section looks like a war ravaged godown, littered everywhere with carton boxes and goods, nowhere to pass through. The airport cargo premises are in primitive stage and plagued with small, ill planned space, ancient and worn out equipments, unscientific planning in execution, unsuitable workforce and narrow and negative mind set of officials. There is no organized, systematic activity and the place is strewn with an array of obsolete equipments, ill clad and ill mannered workers and the place is nothing but a bedlam. It is unimaginable a place where international trade which earns millions of dollars to India, takes place. It is a miracle that with every possible chaos and confusion, like in a market place, the business here is going on unwittingly.

6.3.1 Suggestions and Recommendations to the Stake Holders

1. Approach Road to Cargo Section

In India, Chennai airport is the only airport situated within Metropolitan area. The main arterial road, the high density traffic laden road, the GST Road, which connects Chennai with southern tip of the land, runs parallel to the Airport. This GST Road is always beaming with vehicles, Metro Rail Elevators, and Road Separators, prohibitive of road side parking and heavy trucks are restricted entry during day time. So necessarily the cargo laden trucks have to be parked inside the designated truck dock area of the Airport. But from the GST road to truck dock area, the available approach road, service road as it is called is very narrow and a squeeze through. The two way passage in this single pass lane makes the trucks movement stunned. Public vehicles are also allowed in this stretch, that adds to the turmoil. To mitigate this suffering, the road should be highly broadened by demolishing certain compound walls of buildings lined up on the road.

Concrete roads should be paved to take on the loads of heavy trucks.
2. **Shortage of Truck Dock Area**

The allocated area for truck docking is in two places. One area is for Air India cargo and another one is for Airport Authority of India. For AAI truck parking, an area of approximately 4000 sq.m is earmarked. AAI handles 25 Airlines with 36 flights in a day. Considering the volume of AAI’s transaction, the Truck Docking Area has very minimal space.

Air India handles 11 Airlines with 14 flights in a day. The truck dock area is of two earmarked spaces covering approximately 2000s.qm each, intersected by a vast area dotted with a small building used by TNEB. This building can be demolished and the space covering all the three parts (including space recovered) can be used for truck docking.

i) Flood lights should be provided at Truck Dock Yard.

ii) Security should be posted at the area and CCTV cameras should be installed at pivotal points.

iii) Token system should be introduced to ease truck movements.

iv) Resting place for drivers should be provided.

3. **Shortage of Landside Facilities**

Landside area like, cargo ramp area, weighting area, customs area, screening area, palletizing area of Air India is looking pathetic. It is overcrowded. The vacant, unused buildings in between AI and post office can be used for the purpose.

4. **Segregated Facilities for Different Types of Cargo**

Separate facilities and entry points should be provided for special cargo like perishable goods, human remains, pharmaceuticals, dangerous goods, livestock and oversized cargo. Separate facilities make the process easy and simple and consume less time. Trucks from the bay can be brought to this place directly.
5. **Cold Storage Facilities should be Enhanced to the Standard Level**

Currently there are no cold storage facilities available for export warehouse in Chennai. With the number of airlines operating from Chennai the perishable movement contribute to major share in the growth of export market. It is suggested to build a separate cold storage warehouse for perishable cargo, pharmaceuticals and temperature control cargo.

6. **Cargo Cutoff Time**

AAI stipulates that reporting time for cargo is D -4 (Departure minus four hours) hours but shippers reach their cargo at the last minute. It makes the matter worse. The shippers should be advised to bring the cargo to ramp earlier, and also top preference should be given to the airlines operating earlier. This will ease out the long waiting process.

7. **Terminal Counter Service should be Improved**

Currently Air India handled airlines / agents Terminal counter is opened till 18:00 hours for both manual and electronic filing. The terminal counter services should be operational for 24 / 7.

8. **Lack of Infrastructure**

In Chennai Air Cargo, often manual equipments are used. The worn out, low capacity equipments consume more time and more workers are engaged to finish a job. For example, manual pallet jarks are used for a job instead of Powered Pallet Jacks.

The weighing machines used are obsolete and their constant use, wear and tear and frequent breakdowns tell upon the accuracy of weighment. Low capacity and high capacity weighing machines should be used for different weighments. The number of weighing machines used in the cargo ramp area should be increased. Weighment particulars secured from outside should not be entertained.
The number of forklifts, floor transfer vehicle, power pallet jarks, drollies are scarce and do not match with requirements. A limited number of tractors are only available. Lack of these basic equipments adds to delay in the process. Automated Storage and Retrieval System is not introduced in Chennai which is common in other airports like Bengaluru. Modern equipments must be put into service.

The buildings should be revamped with more lightings. The ill-lit, gloomy appearance of the buildings should be changed into bright, vibrant and lively business house.

9. **Lack of X-Ray and Screening Machines**

The world is moving towards Certified Cargo Screening Facilities to achieve 100% Air Cargo Screening. The proposed Piece Level Screening is followed by stages in some countries. X-Rays, Bulk Explosives Deduction Systems, Explosives Traces Deduction machines are distant dreams for Chennai Airport.

In Chennai Cargo, low capacity, old fashioned X-Ray machines and screening machines are used and naturally their output is abysmally low. It is also pointed out that Chennai is one of the inlets and outlets for smuggling of contrabands.

i) Screening technology should be improved at par with western countries.

ii) Advanced X-ray and screening machines should be put into use.

iii) Specialized canine squads be introduced for cargo section.

The introduction of canine squads will bring a sea change in the minds and behavior of cargo lifters and drug peddlers.
10. **Shortage of Manpower**

In Chennai Air cargo, the manpower management is in dismal condition. For example, in Airport Authority of India section, Bhadra, the sole agent of AAI, employs its own workers. But in Air India section, multiple groups of contract workers are employed. Their works do not synchronize with each other. The contract workers are temporary, novice, untrained and gap fillers. They are rotated in different jobs and area shed at any time.

i) Experienced and qualified workers should be allowed to work in X-ray and Screening machines under the constant vigil of supervisors and should be monitored. Regular training should be given for the screeners.

ii) Experienced and capable operators for motorized vehicles, equipments should be employed and regular skill enhancement trainings should be imparted.

iii) The strength of workforce should be in proportion to number of machines used and the quantum of work on hand.

iv) Reserve workforce should be maintained.

v) Trained staff for handling dangerous goods should be available.

11. **Improper Handling of ULD**

ULD is important piece of equipment on which all the airlines invest a lot. Currently ULDs are not maintained properly in Chennai warehouse and it is scattered at bay area and export / import warehouse. It is strongly recommended that separate ULD racks and storage area for freighter airlines and for passenger airlines should be allocated.
12. **Pallet Built Up**

100% pallet built up is not done as per airlines requirement. It is recommended that frequent training is to be given to loaders / staff / supervisor on aircraft counters and cargo palletization based on the type of cargo.

13. **Absence of CCTV’s and the Menace of Pilferage**

Surveillance over men and goods is negligible. CISF personal are posted at certain places only. At some grey areas where there is no CISF or CCTV camera, pilferage takes place. All strategic places should be brought under CCTV camera surveillance. The footages should be audited by high level committees every month. Security strength should be increased.

14. **Unethical Handling of Goods**

In Chennai Air Cargo, starting from cargo ramp area to loading onto pallets, cargo is handled with least care and respect and is piled up or heaped up carelessly, thrown everywhere aimlessly. Even dead bodies (HUM) do not get due respect. Proper care and handling should be given to the special cargo.

Any passerby can take any package as he wishes from the strewn cargo. This illegal theft is unnoticed or unnoticeable. The persons responsible for such a callous handling of cargo should be dealt with under law.

15. **Reduction of Documentation**

Documental clearance occupies more time than physical handling of cargo. Documents like Bills of Entry, Shipping Bills, E.P. Copies may be eliminated. A procedure like ‘single window clearance’ may be evolved and adopted which can drastically reduce the time taken for process. The procedural lapses in handling documents should be avoided.

Adoption of EDI system should be vigorously implemented.
16. **Use of Advanced Cargo Information Systems**

In Bengaluru advanced cargo information systems are prominently used which curtail the reduced dwell time considerably and all the information are packed in one format and easily accessible to all the people concerned. The same system of cargo information should be strictly followed in Chennai also.

17. **Reduction of Human Intervention**

A cobweb of steps is involved in Import and export procedures. The customs department prescribes umpteen numbers of dos and don’ts for a single transaction.

Non availability of officers at places, their indifference, the attitude of shooing etc damp the spirit of whole process. The toil and sufferance at the customs area, speak volume of untold misery. A trade, which earns millions of dollars in export and import, gets a thrashing in every detail at the hands of officers.

The intervention of too many officers for inspection and evaluation can be avoided.

18. **24X7 working**

The business of export and import trade is a continuous process. It cannot be caged in a time frame. Every second is valuable and should be used meticulously. In Chennai air cargo, time limits have been fixed unevenly. It is to be noted that the scheduled freighters garner slots according to their needs. Other international airports work for 24x7 hours.

19. **Unused Slot Space**

Currently slots are not used properly. For example, Cathay Pacific Freighter uplifts its load by 23:50 pm in the midnight; Singapore Airlines by 01:55 am, Qatar by 04:30 am; Malaysian Air Cargo by 05:00 am; Etihad Cargo by 10:45 am; and Cargolux by 11:00 am. The system in Chennai air cargo leaves a lot of slot
space unused by freighters. Normally priority is given to passenger aircraft only but it generates lesser income. If the whole span of time in a day is spread throughout, more scheduled flights can operate their flights at their convenient time and more business will witness Chennai air cargo.

The system of slot allocation should be rationalized.

20. Developing More Freighter Bay

There are three wide body freighter bays available in Chennai cargo. But extension of freighter bay is possible as land portion gives room for it. This will increase more freighter frequency into Chennai, which in turn increases the revenue to the handling agent.

21. Making use of Unutilized Resources

In Chennai Airport, the domestic airport is beaming with passenger activity. But the activity at international airport is comparatively less due to various reasons like lack of room for passengers descending from jumbo jets. The international terminal should be properly used. Slot allocation constraints can be sorted out by use of secondary runway which is highly underutilized. It is said that this under utilization is due to non availability of ILS facilities. This can be cured at once. Cargo freighters can be allowed to use secondary runway throughout the day to catch up with the growing demand for air shipment.

22. Dwell Time

The dwell time for both import and export in Chennai airports highest in India, and proper remedies as suggested in this study should be taken to reduce the dwell time

23. Cargo throughput

Air cargo throughput efficiency of Chennai cargo is put at 6.68 percent which is lowest among in Indian airports. Enough remedial measures should be taken to enhance the efficiency rate.
24. **Cargo Village**

   The concept of cargo village should be introduced in Chennai airport as in Bengaluru. This concept of cargo village reduces the whole time needed for cargo handling. All the handling process can be done in a single place.

25. **Dumping of Cargo at Peak Hours**

   Shippers usually dump their shipments at last minute. Shippers should be encouraged to avoid such practice and incentives should be given to them to avoid such practices.

26. **Lack of Supervision and Coordination**

   Close supervision and coordination of concerned authorities and stakeholders are not to the standards which aggravate the already crumpling Chennai air cargo handling. Proper steps should be taken.

6.3.2 **General**

   The comparison made on the basis of responses in the questionnaire of Chennai and Bengaluru cargo handling throw open a world of difference. The mammoth size of buildings, modern equipments, manpower, and the manner of handling cargo in Bengaluru dwarf Chennai air cargo handling. The comparison gives a plethora of ideas and ambitions to improve Chennai air cargo. The comparison was earnestly done to bring out the shippers minds in both the cases. It is an eye opener.

   The implementation of the recommendations of ‘The Working Group Report on Air Cargo Logistics in India’ of Ministry of Civil Aviations is in its nascent stage. The authorities concerned may make a serious note of the prevailing situation in Chennai and may remove the impediments in bringing the change to the fore.
Chennai Air Cargo is the pride of air shipment in India. The lost glory should be regained and the crown of excellence should once again come to Chennai air cargo.

6.4 SCOPE FOR FURTHER STUDY

Air cargo handling involves so many procedures and participants. It starts from ramp handling to delivery of goods, documentation, equipments used, warehouse management, dwell time, on time performance, safety and security etc. provide for further study. In this days of ever changing scenario of technological use, the air cargo handling is bound to change in its performance and outlook.

6.5 CONCLUSION

Aviation industry is a competitive business. Each airline and airport vie with one another for the space it desires. The economic growth of aviation industry depends on the performance of various participants involved in the trade. Since airports are gateway to air shipments, the facilities and services available should be at pinnacle. Chennai air cargo though in the field for several decades could not retain its standing due to various debacles as studied earlier. Modern business environment encompasses new facilities in its operations while Chennai airport lags far behind in its facilities, advancement, conduction and output, clever use of manpower and facilities, customer relation management. Cargo handling is a specialist operation with serious care and planning. If the trade wants to thrive, customers’ satisfaction also should be fulfilled. While the International air cargo trade galloping fast, a Chennai airport in cargo handling cannot lag behind its juniors.

When the news that Chennai airport despite its long history and reputation loosing its volume and revenue, emanated from various quarters of the industry and the press, intrigued the researcher to find out its causes, inherent vices and anomalies in Chennai air cargo operation. As in the social comparison theory, to evaluate the cargo handling function in Chennai airport, Bengaluru airport cargo operation also has been evaluated.
The study shows that Chennai air cargo handling operations failed miserably in almost all segments. Various causes have been identified and so remedies also have been advocated in this study.

Lack of infrastructure, poor availability of trained manpower, space constraints, lack of supervision and coordination among various participants etc, have become the major hurdles for the betterment of air cargo handling in Chennai.

Modern equipments like screening machines, ASRS, ETVs, forklifts, VNA, HRR, not even specialized storage for export cargo are not available in Chennai air cargo. Improper handling of cargo and pallet built up are other causes of damage of cargo that result in damage of goods and reputation. It is highly urgent that modern EDI system should be implemented.

The study deals with the issues very clearly and deeply and these recommendations can be enforced in stages to its growth. Short term and long term plans as narrated in this study can be taken as a guideline for the improvement of Chennai air cargo. The functions, facilities, advancements, shown by the Bengaluru air cargo give a panoramic view of the airport as a whole and it gives a glimpse of the working environment, planning in execution and its top notch clearly tells us how an airport should be run and it is an eye opener for everyone to emulate. It is highly hoped that the Chennai air cargo will see its blissful days soon.