

## **A STUDY ON THE OPERATIONAL PERFORMANCE AND SERVICE QUALITY OF TUTICORIN PORT**

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### **ABSTRACT**

Seaports are important interfaces in the supply chain between sea and land transportation and a component of freight distribution as the entrance of produce, merchandise and passengers to a country, but as well as the exit door to all the exports to the international markets.

Seaports are points of convergence of inland and coastal transportation systems, defining a seaport's hinterland. This function may be direct, as freight reaches a port directly through road transportation, or indirect as freight reaches a seaport through an inland port (e.g., rail station) or through traffic consolidation at a regional seaport and shipped by coastal transportation. Likewise, seaports are points of distribution to inland and coastal transportation systems, defining a seaport's foreland.

**Key Words : Coastal transportation, container freight station, feeder vessel, consolidation.**

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## **INTRODUCTION**

Maritime transport is a critical infrastructure for social and economic development of a country. It represents the pace, structure and pattern of development of water transport in the country. The ministry of shipping encompasses within it the shipping and port sectors which include shipbuilding and repair, major ports, national waterways and inland water transport. The ministry has been entrusted with the responsibility to formulate policies and programmes on these subjects and their implementation.

Tuticorin has been a centre for maritime trade and pearl fishery for more than a century. The natural harbor with a rich hinterland, activated the development of the Port, initially with wooden piers and iron screw pile pier and connections to the railways. Tuticorin was declared as a minor anchorage port in 0868. Since then there have been various developments over the years.

## **OBJECTIVES OF THE STUDY**

- To know the level of satisfaction of respondents on Operational performance and infrastructural facilities of Tuticorin Port.
- To analyze the challenges faced by Customs Brokers during Customs Clearance.
- To study the Service Quality of Tuticorin Port.
- To offer suggestions on enhancing operational performance and service quality of Tuticorin port.

## **RESEARCH METHODOLOGY**

### **MEANING FOR RESEARCH**

Research in common parlance refers to search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. The advanced learner's dictionary of current English lays down the meaning of research as "A careful investigating or inquiry especially through search for new facts in any branch of knowledge".

### **MEANING FOR RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various

steps that are generally adopted by a researcher in studying his research problem along with the logic behind them.

### **AREA OF RESEARCH**

The research study was conducted in Tuticorin..

### **RESEARCH DESIGN**

Research design is the blue print of the proposed study. The research design adopted for this study is descriptive in nature.

### **DESCRIPTIVE RESEARCH DESIGN**

Descriptive research studies are those studies concerned with describing the characteristic of a particular group. Such studies are concerned with specific predictions, with narration of facts and characteristics concerning group or situation.

### **SAMPLING TECHNIQUES**

The sampling technique adopted in the project was random sampling. This method was convenient and suitable for the study. A sample of 50 organizations was taken in to account.

### **DATA COLLECTION**

#### **Primary and secondary data:**

The nature of data collected for this study was mainly primary data. Primary data were collected from the respondents through a structured interview scheduled from the respondents were personally interviews by the researcher. This research is undertaken, based on the availability of secondary source of data. The required information has been collected from journals, magazines and newspaper and also from internet.

### **STATISTICAL TOOLS USED**

The statistical tools have been used to analyze the primary data.

- ✓ Simple Percentage
- ✓ Chi – Square

- ✓ ANOVA
- ✓ Weighted Average
- ✓ Ranking Method

## CHAPTER II

### REVIEW OF LITERATURE

**S.K. Bose, N.G. Kannan**, itemized that “Improving The Service Quality Of Ocean Container Carriers” has encounter the service quality improvement of ocean container carriers to ensure breakthrough performance in India based on service criteria, transportation literature and customer satisfaction survey. The author found that the service criteria affect the service quality of ocean container carriers. The author added that there is a huge negative gap exists in the efficient resource allocation. Hence the author suggests that appropriate steps should be taken in the Indian Container Carrier industry to enhance service quality.

**M Shanaki** titled that “Relationship between Service Quality and Customer Satisfaction” has symbolizes the involvement of customers in the service provided by the port. The author has selected the respondents covering infrastructure providers, shipment companies of investor companies. The analysis showed that the shipment companies were satisfied with the variables of responsiveness, accessibility, trust, knowledge, satisfaction and recovery. The investor companies were relatively dissatisfied with all above said factors. The investor companies are satisfied with the tangible factors, knowledge, and accessibility but dissatisfied with all other factors.

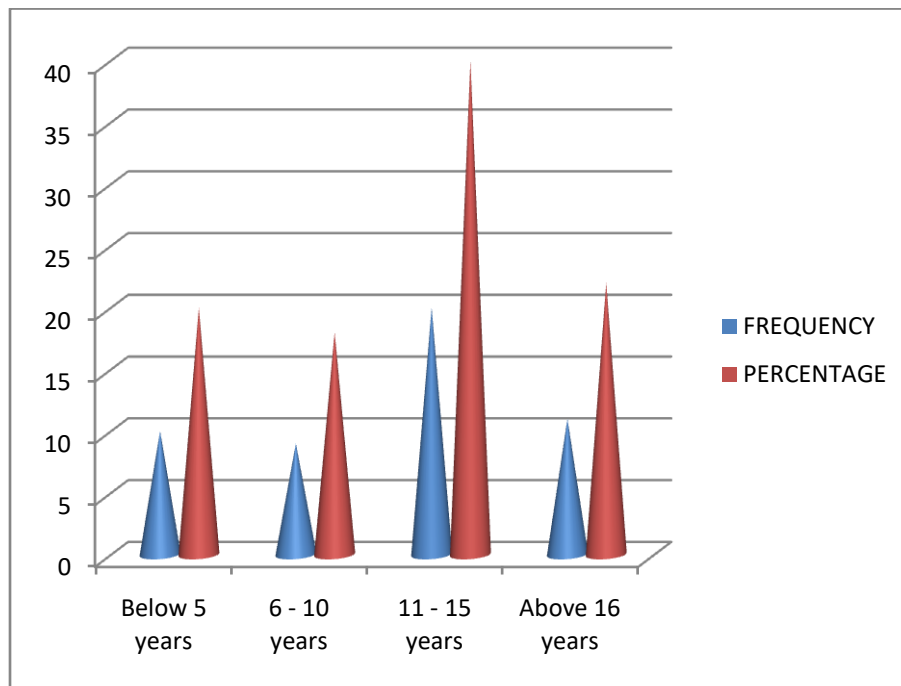
**Sankar Marimuthu, Chairman of Confederation of Indian Industry in Tuticorin**, said that Tuticorin at present is a hub of power production and more than 50 percent of sea traffic is coal from foreign countries and container traffic. With the increased traffic, the ship building yard will boost sea traffic. The Chennai port is severely congested and Tuticorin is becoming a significant port in the down south," he said. "This move will greatly enhance industrialization in the region as a cluster of industries will come up to cater to the ship-building industry.

**SIMPLE PERCENTAGE****TABLE SHOWING THE YEAR OF EXPERIENCE**

| EXPERIENCE     | FREQUENCY | PERCENTAGE |
|----------------|-----------|------------|
| Below 5 years  | 10        | 20         |
| 6 - 10 years   | 9         | 18         |
| 11 - 15 years  | 20        | 40         |
| Above 16 years | 11        | 22         |
| Total          | 50        | 100        |

**INFERENCE**

The above table shows that 40% of the respondents have experience of 11 - 15 years, 22% of the respondents are with the experience of above 16 years, 20% of the respondents are with the experience of 6 – 10 years and 18% of the respondents are with the experience of below 5 years.

**CHART SHOWING THE YEAR OF EXPERIENCE**

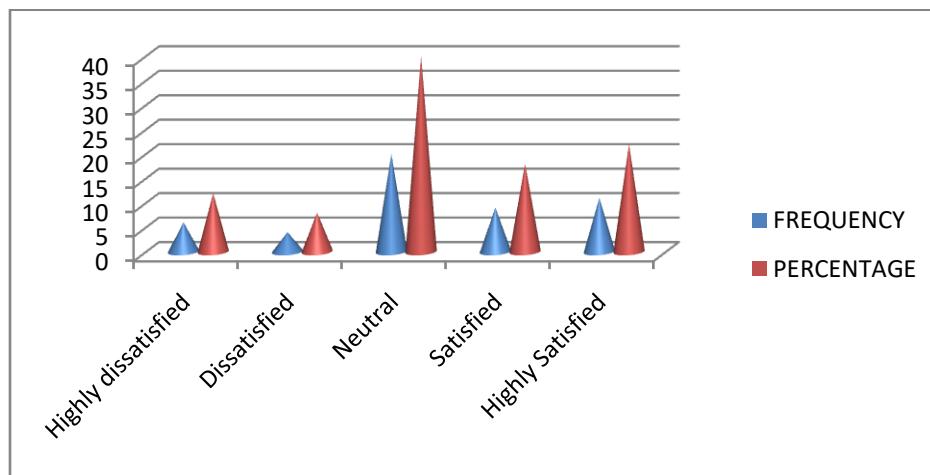
**TABLE SHOWING THE LEVEL OF SATISFACTION ON THE OVERALL PERFORMANCE OF TUTICORIN PORT**

| SATISFACTION LEVEL  | FREQUENCY | PERCENTAGE |
|---------------------|-----------|------------|
| Highly dissatisfied | 6         | 12         |
| Dissatisfied        | 4         | 8          |
| Neutral             | 20        | 40         |
| Satisfied           | 9         | 18         |
| Highly Satisfied    | 11        | 22         |
| Total               | 50        | 100        |

### INFERENCE

The above table symbolizes the level of satisfaction of the respondents based on the overall performance of Tuticorin Port, the majority of 40% of the respondents were stated that the performance is neutral, 22% of the respondents were revealed that their satisfaction level is high, 18% of the respondents were imparted that they are satisfied, 12% of the respondents were highly dissatisfied, and the minimum of 8% respondents were dissatisfied.

**CHART SHOWING THE LEVEL OF SATISFACTION ON THE OVERALL PERFORMANCE OF TUTICORIN PORT**



**CHI SQUARE****TABLE SHOWING THE EXPERIENCE OF THE FREIGHT FORWARDERS/CHAs AND THE CHALLENGES FACED BY THEM DURING CUSTOMS CLEARANCE**

**H<sub>0</sub>:** “There is no significant difference between the experience of the Freight Forwarders/CHAs and the challenges faced by them during Customs Clearance”.

| FACTORS                           | NEVER     | RARELY    | SOMETIMES | OFTEN            | VERY OFTEN | CHI-SQUARE | DF | SIG  | RESULT   |
|-----------------------------------|-----------|-----------|-----------|------------------|------------|------------|----|------|----------|
| Filing of Shipping Bill           | 13(26.0%) | 9(18.0%)  | 5(10.0%)  | 18(36.0%)        | 5(10.0%)   | 87.244     | 12 | .000 | Accepted |
| Filling of Bill of Entry          | 8(16.0%)  | 10(20.0%) | 15(30.0%) | 8(16.0%)         | 9(18.0%)   | 1.120      | 12 | .000 | Accepted |
| Payment of Duty                   | 5(10.0%)  | 13(26.0%) | 12(24.0%) | 13(26.0%)        | 7(14.0%)   | 98.007     | 12 | .000 | Accepted |
| Assessment/ Inspection Of Cargoes | 6(12.0%)  | 8(16.0%)  | 4(8.0%)   | <b>20(40.0%)</b> | 12(24.0%)  | 82.544     | 12 | .000 | Accepted |
| Efficiency of Customs Officials   | 8(16.0%)  | 9(18.0%)  | 15(30.0%) | 10(20.0%)        | 8(16.0%)   | 1.115      | 12 | .000 | Accepted |
| EDI                               | 16(32.0%) | 11(22.0%) | 10(20.0%) | 8(16.0%)         | 5(10.0%)   | 86.656     | 12 | .000 | Accepted |

**INFERENCE**

High value of significance entails that there is no significant difference between the experience of the Freight Forwarders/CHAs and the challenges faced by them during Customs Clearance.

**ANALYSIS OF VARIANCE****TABLE SHOWING THE SERVICES OF THE FREIGHT FORWARDERS/CHAs AND THE CHALLENGES FACED BY THEM DURING CUSTOMS CLEARANCE**

**H<sub>0</sub>:** “There is no significant association between the services of the Freight Forwarders/CHAs and the challenges faced by them during Customs Clearance”.

| ANOVA                                |                      |                |    |             |         |      |
|--------------------------------------|----------------------|----------------|----|-------------|---------|------|
| Factors                              | Sources of Variation | Sum of Squares | DF | Mean Square | F       | Sig. |
| Filing of shipping bill              | Between Groups       | 74.229         | 2  | 37.114      | 73.320  | .000 |
|                                      | Within Groups        | 23.791         | 47 | .506        |         |      |
|                                      | Total                | 98.020         | 49 |             |         |      |
| Filing of bill of entry              | Between Groups       | 63.151         | 2  | 31.576      | 64.952  | .000 |
|                                      | Within Groups        | 22.849         | 47 | .486        |         |      |
|                                      | Total                | 86.000         | 49 |             |         |      |
| Payment of duty                      | Between Groups       | 54.787         | 2  | 27.393      | 68.144  | .000 |
|                                      | Within Groups        | 18.893         | 47 | .402        |         |      |
|                                      | Total                | 73.680         | 49 |             |         |      |
| Assessment/<br>inspection of cargoes | Between Groups       | 49.128         | 2  | 24.564      | 29.338  | .000 |
|                                      | Within Groups        | 39.352         | 47 | .837        |         |      |
|                                      | Total                | 88.480         | 49 |             |         |      |
| Efficiency of customs<br>officials   | Between Groups       | 59.002         | 2  | 29.501      | 57.827  | .000 |
|                                      | Within Groups        | 23.978         | 47 | .510        |         |      |
|                                      | Total                | 82.980         | 49 |             |         |      |
| EDI                                  | Between Groups       | 78.459         | 2  | 39.229      | 153.123 | .000 |
|                                      | Within Groups        | 12.041         | 47 | .256        |         |      |
|                                      | Total                | 90.500         | 49 |             |         |      |

## INFERENCE

High value of significance implies that there is no significant association between the services of the Freight Forwarders/CHAs and the challenges faced by them during Customs Clearance.



**WEIGHTED AVERAGE MEAN****TABLE SHOWING THE NATURE OF PROBLEMS FACED BY THE FREIGHT FORWARDERS/ CHAs FROM THEIR CLIENTS****INFERENCE**

The above table exhibits the weighted average mean scores. The table highlights

| <b>OPINION</b>        | <b>N</b> | <b>R</b> | <b>S</b> | <b>O</b> | <b>V O</b> |              |              |             |
|-----------------------|----------|----------|----------|----------|------------|--------------|--------------|-------------|
| <b>FACTORS</b>        | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b>   | <b>TOTAL</b> | <b>MEAN</b>  | <b>RANK</b> |
|                       |          |          |          |          |            |              | <b>SCORE</b> | <b>RANK</b> |
| Poor communication    | 10       | 24       | 10       | 3        | 3          | 50           | 2.33         | 5           |
|                       | 10       | 48       | 30       | 12       | 15         | 115          |              |             |
| Lack of awareness     | 10       | 15       | 12       | 8        | 5          | 50           | 2.66         | 3           |
|                       | 10       | 30       | 36       | 32       | 25         | 133          |              |             |
| Monetary dealings     | 15       | 8        | 12       | 10       | 5          | 50           | 2.64         | 4           |
|                       | 15       | 16       | 36       | 40       | 25         | 132          |              |             |
| Documentation process | 7        | 20       | 12       | 4        | 7          | 50           | 2.68         | 2           |
|                       | 7        | 40       | 36       | 16       | 35         | 134          |              |             |
| Time management       | 7        | 5        | 15       | 17       | 6          | 50           | 3.2          | 1           |
|                       | 7        | 10       | 45       | 68       | 30         | 160          |              |             |

weighted score, which helps to find the nature of problems faced by the freight forwarders/ CHAs from their clients. The highest score 3.2 exemplifies Time management and the lowest score 2.33 denotes Poor Communication.

**TABLE SHOWING THE COMMON PROBLEMS ENCOUNTERED BY FREIGHT FORWARDERS/ CHAs WHILE DEALING WITH TUTICORIN PORT**

**FINDINGS AND SUGGESTIONS****FINDINGS**

| <b>OPINION</b>  | <b>HA</b> | <b>A</b> | <b>N</b> | <b>DA</b> | <b>HDA</b> |              |                       |             |
|-----------------|-----------|----------|----------|-----------|------------|--------------|-----------------------|-------------|
| <b>FACTORS</b>  | <b>5</b>  | <b>4</b> | <b>3</b> | <b>2</b>  | <b>1</b>   | <b>TOTAL</b> | <b>MEAN<br/>SCORE</b> | <b>RANK</b> |
| High cost       | 10        | 18       | 8        | 10        | 4          | 50           | 3.40                  | 1           |
|                 | 50        | 72       | 24       | 20        | 4          | 170          |                       |             |
| Transit time    | 8         | 25       | 3        | 5         | 9          | 50           | 3.36                  | 2           |
|                 | 40        | 100      | 9        | 10        | 9          | 168          |                       |             |
| Customs problem | 5         | 16       | 9        | 13        | 7          | 50           | 2.98                  | 4           |
|                 | 25        | 64       | 27       | 26        | 7          | 149          |                       |             |
| Infrastructure  | 6         | 12       | 22       | 8         | 2          | 50           | 3.24                  | 3           |
|                 | 30        | 48       | 66       | 16        | 2          | 162          |                       |             |

The research was conducted in Tuticorin city to know the Operational Excellence and Service Quality of the Tuticorin port. The following are the findings revealed by the analysis and interpretation of data collected from 50 respondents.

- Around 22% of the respondents have opined that their satisfaction level on the overall performance of Tuticorin port is Highly Satisfied
- Most of the respondents have opined 1<sup>st</sup> rank for Time Management with regard to the nature of problems faced from their clients.

- Majority of respondents have opined 1<sup>st</sup> rank for EDI with regard to the common problems faced during Customs clearance.
- Maximum numbers of the respondents have declared 1<sup>st</sup> rank to highly cost with regard to the common problems encountered while dealing with Tuticorin Port.
- More number of the respondents have opined 1<sup>st</sup> rank for clearance of goods at port with the mean score of 3.64 based on the satisfaction level on the operations at Tuticorinport.
- Majority of respondents have opined 1<sup>st</sup> Rank to Port Security facilities with regard to the level of satisfaction on the infrastructural facilities offered at Tuticorin Port.
- Majority of the respondents have opined 1<sup>st</sup> Rank for Berths and 2<sup>nd</sup> Rank to Level of Private sector participation with respect to the Quality factors of Tuticorin port infrastructure.

## **SUGGESTIONS**

- Port authorities have to take necessary measure to bring down the port charges.
- Intermediaries are not satisfied with the storage facilities, so port authorities have to ensure that the storage facilities are enriched.
- Proper transporting system inside the port need to be enriched.
- Time management is the major concern for the intermediaries at Tuticorinn port, so port authorities have to enrich their processing performance and quick clearance of documents needs to be ensured.
- The system for filing the documents through online can be more user friendly for the easy access to exporters and intermediaries.
- Non-availability of upgraded equipment and shortage of equipment in Tuticorinport is one of the major concerns for the delay in loading and unloading process. So Tuticorinport should equipped with highly upgraded equipment to facilitate international grade operations.
- In general the infrastructure facilities available at Tuticorinport are not up to the global standards. So, Port authorities and ministry of shipping can have a combined action plan to facilitate all ports to global standards.

## CONCLUSION

The present study concludes that the performance of Tuticorin port regarding cargo handling, container traffic, storage facilities, port security facilities, logistics services, level of export and import experience and lesser import and export problems.

Tuticorin port is far behind the international standard in providing better service and it has to improve in all its endeavors. The speed in adoption of sophisticated technology has to be increased, so as to increase the satisfactory level of the customer. The port should take measures to improve the required facilities in cargo handling. The procedural formalities could be completed within reasonable time, so that the turnaround time will be reduced.

The development of port infrastructure plays a very important role in economic progress of the nation. No country can think of economic progress and development of efficient infrastructure of sea ports. Especially in age of globalization where international goods and commodities are to be transported from one country to another, infrastructure is the key to the success.

The Government of India declared Tuticorin port as the 10<sup>th</sup> major port on 11<sup>th</sup> July 1974. It plays a significant role in the import from and export of goods to foreign countries.