

Trend And Growth Of Traffic Performance Of Thoothukudi V.O.C. Port Trust

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Abstract

Port the world over, as well as India, are ever more drawn into the peak of a fast-changing business atmosphere in the international maritime trade. In this situation, the present study attempts to discuss the trend and growth of the strength of staff, cargo and container traffic handled and import and export traffic performance in Thoothukudi V.O.C. Port Trust.

The objectives of the present study are:

1. To study the strength of staff performance in Thoothukudi V.O.C. Port Trust during the period 2009 to 2018.
2. To find out the cargo and container traffic handled at Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2018-19 and
3. To examine the trend and growth of the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust.

The study based on secondary data. The secondary data collected from Administrative reports, various publications of Thoothukudi Port Trust, reports, documents, theses and websites. The tools used for the study were percentage analysis, mean, standard deviation, compound growth rate and coefficient of variation. It is found that the trend coefficient was found to be statistically significant for the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust. It indicates, on average, it had increased by 7.3 percent for staff strength, 4.8 percent for cargo and container traffic handled, and 4.2 percent for import and export traffic per annum. The growth rates are found to be 8.27 percent, 4.63 percent, and 3.18 percent for the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust. The value of R^2 indicates that the variations in staff strength (0.531), cargo and container traffic handled (0.768), and import and export traffic (0.643) explain variations independent variables to the extent of 53 percent, 77 percent and 64 percent respectively. Thoothukudi V.O.C. Port Trust sector saw dramatic growth in the first four decades of post-independence, under the initiative of planned development and active government support.

Keywords:maritime trade, regional growth, cargo handling, construction,container traffic.

INTRODUCTION

Maritime Transport is an acute infrastructure for the social and economic development of a country¹. The maritime trade also helped the colonisation of other countries as they provided a gateway for the transfer of military assets and workforce across the seas².It represents the pace, structure and pattern of development of water transport in the country.

Internal and international trade of a country not only fulfils the requirements of its different regions but also promotes balanced regional growth in the country³. The services and activities of ports generate aggregated benefits and socio-economic wealth for the geographical region through urban planning and environmental economics.

India is a hallowed country. She is bounded by three seas such as the Bay of Bengal, the Indian Ocean and the Arabian Sea⁴. The southern side is deficient in harbours to accommodate the large vessels now employed in sea-borne trade⁵. The location of ports and port activities such as cargo handling, dredging, construction, transportation, storage of surplus commodities, all-cause considerable impacts on coastal environment and the various coastal ecosystems⁶.

A transport system consists of nodes (e.g. settlements, ports, and terminals), links (ways for transport, e.g. motorways or railway lines) and flows (i.e.) movements of vehicles

¹Kleinschmidt, E.J, “Impact of export strategy on export sales performance”, Journal of International Business studies, vol.16, No. 1, pp. 37-55, 1985.

² India Maritime Report Volume 2, (2009) i-maritime, Navi Mumbai, p.328.

³Tookey, D.A. “Factors Association with Success in Export”, Journal of Management Studies, Vol. pp. 48-64. 1, March, 1964.

⁴Mishra, S.S.; Upadhyaya, A.; and Swar, Biranchi N. “Problems, Challenges and Opportunities of Logistics with special reference to India economy”, Business Excellence, IMT Ghaziabad, Chapter 40, 2005.

⁵3i Network India Infrastructure Report 2006, Oxford University Press, New Delhi, 2006.

⁶Ray (1993), ‘Maritime India Ports and Shipping’, Calcutta: Pearl Publishers.

carrying people and cargoes⁷. The seaport is defined as a collection of physical facilities and services designed to serve as a point of interchange between land and sea transport⁸.

The cumulative impact of all influences on the Indian major port sector exerts additional pressure on the human resources employed in the entire maritime sector⁹. In this situation, the present study attempts to discuss the trend and growth of the strength of staff, cargo and container traffic handled and import and export traffic performance in Thoothukudi V.O.C. Port Trust.

OBJECTIVES

The objectives of the present study are:

1. To study the strength of staff performance in Thoothukudi V.O.C. Port Trust during the period 2009 to 2018.
2. To find out the cargo and container traffic handled at Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2018-19 and
3. To examine the trend and growth of the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust.

METHODOLOGY

The study is based on secondary data from 2000-01 to 2017-18. The secondary data collected from Administrative reports, various publications of Thoothukudi Port Trust, the reports of the Department of Economics and Statistics and Ministry of Shipping, Government of India, journals, books, edited books, reports, documents, theses and websites. The tools used for the study were percentage analysis, mean, standard deviation, compound growth rate and coefficient of variation.

Staff strength performance in Thoothukudi V.O.C. Port Trust

The human resources are the most vital assets of any organisation, mainly a public sector undertaking wherein workforce development assumes a higher priority. Table 1 shows

⁷UNCTAD Report, 1976, Port Performance Indicators, United Nations Conference on Trade and Developments at Geneva, United Nations, New York, Vol.I, 35.

⁸ United Nations Conference on Trade and Development (UNCTAD), Monographs on Port Management, No.6, Measuring and evaluating port performance and productivity, 1975,7.

⁹Ravikumar, 2013, "Human Resources Development and labour reforms for better productivity and efficiency in Indian port sector", Indian Ports, .44, No.1, April 2013, p.7.

a gradual annual decrease. This is due to the introduction of ‘The V.O.C. Port Trust Voluntary Retirement Scheme’, with the approval of the government.

The scheme applies to the employees who have completed ten years of service or 40 years of age. As per the scheme, an exclusive compensation is paid, in addition to the regular retirement benefits, equivalent to one and half months emoluments for each completed year of service or the total monthly emoluments for the balance months of service left whichever is less. The principal objective of the scheme is to reduce the surplus workforce wherever it exists and to ensure optimum workforce requirements¹⁰.

Table 1 displays the strength of staff performance in Thoothukudi V.O.C. Port Trust during the period 2009 to 2018.

TABLE 1
THE STRENGTH OF STAFF PERFORMANCE IN V.O.C. PORT TRUST

Year	Class I	Percentage to Total	Class II	Percentage to Total	Class III	Percentage to Total	Class IV	Percentage to Total	Total
2009	80	6.76	54	4.56	673	56.84	377	31.84	1184
2010	86	7.40	42	3.61	676	58.18	358	30.81	1162
2011	82	7.55	41	3.78	644	59.30	319	29.37	1086
2012	82	8.13	56	5.56	614	60.91	256	25.40	1008
2013	83	9.03	59	6.42	567	61.70	210	22.85	919
2014	80	9.76	58	7.07	511	62.32	171	20.85	820
2015	72	9.33	57	7.38	452	58.55	191	24.74	772
2016	80	11.43	45	6.43	417	59.57	158	22.57	700
2017	74	12.89	45	7.84	345	60.10	110	19.17	574
2018	70	8.95	46	5.88	458	58.57	208	26.60	782
Total	789	8.76	503	5.58	5357	59.48	2358	26.18	9007

Source: V.O.Chidambaranar Port Trust 2018 – 2019, Administration Report, pp. 5-6.

It is seen from Table 1 that the strength of staff performance in Thoothukudi V.O.C. Port Trust during the period 2009 to 2018 decreased from 1184 to 782, showing a decreasing trend.

The average number of strength of staff over a period and stability of performance of staff strength during the period 2009 to 2018 presented in Table 2.

¹⁰V.O.Chidambaranar Port Trust 2017 – 2018, Administration Report, pp.5-6.

TABLE 2
AVERAGE LEVEL AND STABILITY OF STRENGTH OF STAFF
PERFORMANCE IN THOOTHUKUDI V.O.C. PORT TRUST FROM 2009 TO 2018

Particulars	Class I	Class II	Class III	Class IV	Total
Mean (X)	78.9000	50.3000	535.7000	235.8000	894.7000
Standard Deviation (S.D)	5.17365	7.11883	116.18190	89.27087	210.18090
Co-efficient of Variation (C.V)%	6.56	14.15	21.69	37.86	23.49

It inferred from Table 2 that staff performance of Thoothukudi V.O.C. Port Trust, on an average over a period, was found to be higher in class III than class II performance of Port Trust. The average number over the period from 2009 to 2018 was 535.7 for class III workers and 50.3 for class II workers. The average number of class I and class IV workers from 2009 to 2018 was 78.9 and 235.8 respectively. The value of the coefficient of variation shows that the performance of workers was relatively stable over ten years compared to class I performance of Thoothukudi V.O.C. Port Trust.

Growth and Development of Traffic Performance

Table 3 shows the year-wise cargo and container traffic handled at Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2018-19.

TABLE 3
TRAFFIC PERFORMANCE OF THOOTHUKUDI V.O.C. PORT TRUST
(in Lakh Tonnes)

Year	Cargo Traffic	Percentage to Total	Container Traffic	Percentage to Total	Total
2000-01	122.84	0.078	156978	99.92	157100.84
2001-02	130.17	0.06	213509	99.94	213639.17
2002-03	132.94	0.06	212925	99.94	213057.94
2003-04	136.78	0.05	253880	99.95	254016.78
2004-05	158.11	0.05	307310	99.95	307468.11
2005-06	171.39	0.05	321060	99.95	321231.39
2006-07	180.01	0.05	377102	99.95	377282.01
2007-08	214.8	0.05	450398	99.95	450612.8

2008-09	220.11	0.05	438548	99.95	438768.11
2009-10	237.87	0.05	439948	99.95	440185.87
2010-11	257.27	0.05	467752	99.95	468009.27
2011-12	281.05	0.06	477096	99.94	477377.05
2012-13	282.6	0.06	475599	99.94	475881.6
2013-14	286.42	0.06	507735	99.94	508021.42
2014-15	324.14	0.06	559727	99.94	560051.14
2015-16	368.49	0.06	611714	99.94	612082.49
2016-17	384.63	0.06	642103	99.94	642487.63
2017-18	365.83	0.06	697631	99.94	697996.83
2018-19	343.42	0.06	767292	99.94	767635.42
Total	3889.62	0.06	6913384	99.94	6917273.62

Source: V.O.Chidambaranar Port Trust 2018 – 2019, Administration Report, pp. 5-6.

Table 3 reveals that the total traffic handled at Thoothukudi V.O.C. Port Trust (cargo and container) increased to 767635.42 lakh tonnes in 2018-19 from 157100.84 lakh tonnes in 2000-01. The cargo traffic handled at Thoothukudi V.O.C. Port Trust increased to 343.42 lakh tonnes in 2018-19 from 122.84 lakh tonnes in 2000-01. Similarly, the container traffic handled at Thoothukudi V.O.C. Port Trust increased to 767292 lakh tonnes in 2018-19 from 156978 lakh tonnes in 2000-01.

From Table 3, it could also see that cargo traffic performance of Thoothukudi V.O.C. Port Trust show a lesser proportion than container traffic performance of Thoothukudi V.O.C. Port Trust in all the years during the period 2000-01 to 2018-19.

The average quantity of cargo and container traffic handled at Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2018-19 and stability of performance of traffic handled at Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2018-19 presented in Table 4.

TABLE 4
AVERAGE LEVEL AND STABILITY OF TRAFFIC HANDLED AT V.O.C. PORT TRUST IN THOOTHUKUDI DURING 2000-01 TO 2018-19

(in Lakh Tonnes)

Particulars	Cargo Traffic	Container Traffic	Total
Mean (X)	242.05	440963.53	441205.57
Standard Deviation (S.D)	88.46	169896.49	169980.98
Co-efficient of Variation (C.V)%	36.55	38.53	38.53

It is inferred from Table 4 that container traffic performance of Thoothukudi V.O.C. Port Trust, on an average over a period, was found to be higher than cargo traffic performance of Thoothukudi V.O.C. Port Trust. The average quantity over the period from 2000-01 to 2018-19 was 440963.53 lakh tonnes for container traffic and 242.05 lakh tonnes for cargo traffic. The value of the coefficient of variation shows that the container traffic performance of Thoothukudi V.O.C. Port Trust was relatively stable over 19 years compared to cargo traffic performance of Thoothukudi V.O.C. Port Trust.

Import and Export Traffic Performance

Table 5 shows the import and export traffic performance of Thoothukudi V.O.C. Port Trust during the period 2000-01 to 2016-17.

TABLE 5

IMPORT AND EXPORT PERFORMANCE FROM 2000-01 to 2016-17

Year	Import	Export	Total
2000-01	98.39	24.45	122.84
2001-02	98.11	32.06	130.17
2002-03	95.64	37.3	132.94
2003-04	101.84	34.94	136.78
2004-05	120.6	37.51	158.11
2005-06	133.75	37.64	171.39
2006-07	135.02	44.99	180.01
2007-08	154.72	60.08	214.8
2008-09	163.7	56.41	220.11
2009-10	186.52	51.35	237.87
2010-11	183.94	73.33	257.27
2011-12	195.61	85.44	281.05
2012-13	198.54	84.06	282.6
2013-14	209.77	76.65	286.42
2014-15	239.93	84.21	324.14
2015-16	273.67	94.82	368.49
2016-17	279.97	104.66	384.63
Total	2869.72	1019.9	3889.62

Source: V.O.Chidambaranar Port Trust 2017 – 2018 Administration Report, pp. 12.

The tables 5 show that during the past 17 years, from 2000 to 2017, the traffic handled had been increasing. During the year 2015-16, V.O.C. port handled record cargo traffic of 368.49 lakh tonnes surpassing the previous year’s achievement of 324.14 lakh tones registering an increase of 13.68%. Compared with the target set by the Ministry at 368.00 lakh tonnes, this performance is higher by 0.13%.

During the year 2016-17, V.O.C. Port Trust handled a record cargo Traffic of 384.63 lakh tones surpassing the previous year’s achievement of 368.49 lakh tones registering an increase of 4.38%. Compared with the target 395.00 lakh tones set up by the Ministry, this performance is down by 2.63%. The imports accounted for 279.97 lakh tones registering an increase of 2.3% and exports accounted for 104.66 lakh tones registering an increase of 10.38% compared with the previous year. V.O.C. Port Trust is one among the positive growth ports in the cargo traffic and has the 7th highest growth percentage amongst all the major ports in India.

The trend and growth of the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust are shown in Table 6.

TABLE 6

TREND AND GROWTH OF STRENGTH OF STAFF, CARGO AND CONTAINER TRAFFIC HANDLED AND IMPORT AND EXPORT TRAFFIC IN THOOTHUKUDI V.O.C. PORT TRUST

Particulars	Trend Coefficient		R ²	Compound Growth Rate in Percent
	a	b		
Strength of staff	7.328	0.054*(7.470)	0.531	8.27
Cargo and container traffic handled	4.831	0.082*(8.775)	0.768	4.63
Import and export traffic	4.167	0.014*(4.797)	0.643	3.18

Figures in brackets represent ‘t’ values

*Significant at 5 percent level.

It is found from Table 6 that the trend coefficient was found to be statistically significant for the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust. It indicates, on average, it had increased by 7.3 percent for staff strength, 4.8 percent for cargo and container traffic handled, and 4.2 percent

for import and export traffic per annum. The growth rates are found to be 8.27 percent, 4.63 percent, and 3.18 percent for the strength of staff, cargo and container traffic handled and import and export traffic in Thoothukudi V.O.C. Port Trust.

The value of R^2 indicates that the variations in staff strength (0.531), cargo and container traffic handled (0.768), and import and export traffic (0.643) explain variations in independent variables to the extent of 53 percent, 77 percent and 64 percent respectively.

CONCLUSION

The development of the port sector is concomitant with the development of maritime trade is an axiom that no littoral nation can afford to ignore in today's globalised world. This was equally true in distant past when maritime nations undertook extensive overseas explorations and trade to set a mark on global economic history. Littoral nations of the world are advantaged in being clusters of relatively faster economic growth, compared to other landlocked hinterland regions.

Thoothukudi V.O.C. Port Trust sector saw dramatic growth in the first four decades of post-independence, under the initiative of planned development and active government support. More than two-thirds of the cargo handling capacity and more than half of India's national shipping tonnage were recognised in the first four decades of independence. The Thoothukudi V.O.C. Port under PPP model should develop port hinterland connectivity and port infrastructure facilities to retain its port user so that progressive growth of the port is achieved.