



**ORIGINAL RESEARCH PAPER**

**Commerce**

**PROFITABILITY EFFICIENCY OF MAJOR PORTS IN TAMILNADU**

**KEY WORDS:**

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**ABSTRACT**

For developing nations, the era of growth is key factor to determine the profitability of the concern. Profitability means, ability to create excess revenue over expenses in order to attract the investor. The study focuses on the compound annual growth rate up to 12years from 2004-2005 to 2014-2015. The paper highlights the profitability position of the major ports in Tamil Nadu. After analysing the facts and figure it can be concluded that undoubtedly major ports play dominant role in economy.

**Introduction:**

The overall strong performance of major ports conceals the GDP of the economy. Developments in the world economy and merchandise trade are primary drivers in seaborne trade. Economic performance across emerging market and developing economies has remained mixed. Ports are economic and service provision units of a remarkable important. Since they act as a place for the interchange of two transport modes, maritime and land, whether by rail or road. Therefore, the essential aspect of port lies in their intermodal nature.

A port is a location on accost or shore containing one or more harbours where ships can dock and transfer people or cargo to or from land. Port locations are selected to optimize access to land and navigable water, for commercial demand, and for shelter from wind and waves. Ports with deeper water are rarer, but can handle larger, more economical ships. Since ports throughout history handled every kind of traffic, support and storage facilities vary widely, may extend for miles, and dominate the local economy. Some ports have an important military role.

**Objectives:**

1. To find out Compound Annual Growth Rate of major ports in Tamil Nadu.
2. To study various factors affecting profit requirement in major ports in Tamil Nadu.
3. To provide suggestions and conclusion in the management of profitability in major ports in Tamil Nadu.

**Hypothesis:**

1. H0:-There is no significance difference in the mean Operating Income among different major ports in Tamil Nadu during the study period.
2. H0:- There is no significance difference in the mean Operating Expenses among different major ports in Tamil Nadu during the study period.
3. H0:- There is no significance difference in the mean Operating profit among different major ports in Tamil Nadu during the study period.
4. H0:- There is no significance difference in the mean Total Income among different major ports in Tamil Nadu during the study period.
5. H0:- There is no significance difference in the mean Total Expenses among different major ports in Tamil Nadu during the study period.
6. H0:- There is no significance difference in the mean Total profit before tax among different major ports in Tamil Nadu during the study period.

**Sources of Data:**

The data was collected for these studies were purely secondary data from the Annual reports of concerned ports for the period of 2012-2014.

**Sample size:**

In Tamil Nadu three ports are considered as major ports. The

samples of all the three ports are taken by the researcher for the study.

**Tools:**

There are number of parameters collectively or individually influence the profitability of major ports in Tamil Nadu. One way Anova analysis was used to evaluate the hypothesis. Annual Compound Growth Rate was used to study the growth over the period of study. Descriptive statistics describe the nature of the data during the study period. Hypothesis was formulated to evaluate the mean factors among different major ports in Tamil Nadu.

**Limitations:**

1. The data used in this study have been taken from the published annual report.
2. The availability of data not paves way to do in depth research work.
3. The period of study is limit up to 12 years i.e. 2004-2015.

**Scope:**

The study covers the profitability efficiency of Major ports in Tamil Nadu. This research helps to understand the profitability concept and act as benchmark for all government organisations.

**Table 1 - Operating Income-Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	403.64	137.79	92.00
MAX.	758.71	550.99	617.31
AVG.	615.66	288.58	261.66
SD.	109.44	128.52	197.77
Variance	11980	16520	39110
Skewness	-0.93	0.86	0.99
Kurtosis	0.16	-0.07	-0.71
CAGR%	56.34	28.37	17.72

The above table 1 shows that the mean of Operating Income from Rs.615.66 to Rs. 288.58 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table 2 - Operating Expenses-Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	286.47	61.57	30.84
MAX.	594.17	239.54	103.04
AVG.	482.43	138.38	47.26
SD.	115.94	70.71	19.54
Variance	13440	5000	381.67
Range	307.70	177.97	72.20
Skewness	-0.71	0.45	2.42
Kurtosis	-1.27	-1.62	6.63
CAGR%	54.17	30.28	43.96

The above table 2 shows that the mean of Operating Expenses from Rs.47.26 to Rs. 482.43 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table 3 - Operating Profit-Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	6.16	73.42	50.27
MAX.	227.24	311.45	514.27
AVG.	133.23	150.20	214.40
SD.	71.18	65	181.97
Variance	5067	4225	33110
Range	221.08	238.03	464
Skewness	-0.36	1.65	0.92
Kurtosis	-0.92	2.86	-0.89
CAGR%	62.50	26.88	12.08

The above table 3 shows that the mean of Operating Profit from Rs.133.23 to Rs. 214.40 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table 4 – Total Income -Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	474.96	163.35	93.27
MAX.	983.73	623.38	643.83
AVG.	803.12	333.76	270.12
SD.	161.14	149.03	203.87
Variance	25970	22210	41560
Range	508.77	460.03	550.56
Skewness	-1.29	0.91	1.05
Kurtosis	0.60	-0.08	-0.54
CAGR%	51.59	29.60	17.27

The above table 4 shows that the mean of Total income from Rs.270.12 to Rs. 803.12 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table 5 – Total Expenses -Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	359.01	91.19	67.36
MAX.	985.53	374.77	293.11
AVG.	682.61	195.50	122.77
SD.	236.55	104.81	62.26
Variance	55960	10980	3876
Range	626.52	283.58	225.75
Skewness	-0.27	0.73	2.05
Kurtosis	-1.69	-1.07	5.06
CAGR%	41.62	28.49	31.85

The above table 5 shows that the mean of Total Expenses from Rs.122.77 to Rs. 682.61 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table 6 –Net Profit before Taxation -Summary of Statistics**

SUMMARY	CHENNAI	V.O.C	ENNORE
MIN.	-173.78	69.19	9.32
MAX.	431.26	248.61	443.49
AVG.	120.51	138.26	147.36
SD.	157.53	50.12	158.92
Variance	24810	2512	25260
Range	605.04	179.42	434.17
Skewness	0.22	1.21	1.13
Kurtosis	0.60	1.45	-0.38
CAGR%			
	250.53	31.26	3.94

The above table 6 shows that the mean of Net Profit Before Taxation from Rs.120.51 to Rs. 147.36 during the study period among the major ports in Tamil Nadu. Among the major ports, Chennai port had highest compound annual growth rate during the study period.

**Table -7 -ONE WAY ANOVA**

1.ANOVA for Operating Income					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	932076.045	2.000	466038.022	20.679	0.000
Within Groups	743708.041	33.000	22536.607		
Total	1675784.086	35.000			
2.ANOVA for Operating Expenses					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1264195.13	2	632097.57	100.739	0
Within Groups	207061.339	33	6274.586		
Total	1471256.47	35			
3. ANOVA for Operating Profit					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	43992.179	2	21996.089	1.556	0.226
Within Groups	466476.415	33	14135.649		
Total	510468.594	35			
4.ANOVA for Total Income					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2033781.03	2	1016890.5	33.995	0
Within Groups	987141.552	33	29913.38		
Total	3020922.58	35			
5.ANOVA for Total Expenses					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2223967.46	2	1111983.7	47.107	0
Within Groups	778986.971	33	23605.666		
Total	3002954.43	35			
6.ANOVA for Net Profit before Taxation					
Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4472.256	2	2236.128	0.128	0.881
Within Groups	578399.091	33	17527.245		
Total	582871.347	35			

**Findings:**

1. The Operating Income and Operating Expenses observes that the calculated value of F is 20.679 and 100.739 which is more than the table value of 2.58 at 5% level with d.f. being BG= 2 and WG= 33 and hence could have arisen due to significant. This analysis is not supports the null hypothesis of difference is sample means and alternative hypothesis is accepted. Researcher concludes that, there is significant difference in the

mean Operating Income and Operating Expenses among different major ports during the study period.

2. The Operating Profit narrates that the calculated value of F is 1.556 which is less than the table value of 2.58 at 5% level with d.f. being BG= 2 and WG= 33 and also p value is not significant. This analysis supports the null hypothesis of difference in sample means and alternative hypothesis is rejected. Researcher concludes that, there is insignificant difference in the mean Operating Profit among different major ports during the study period.
3. The Total Income and Total Expenses observes that the calculated value of F is 33.995 and 47.107 which is more than the table value of 2.58 at 5% level with d.f. being BG= 2 and WG= 33 and hence could have arisen due to significant. This analysis does not support the null hypothesis of difference in sample means and alternative hypothesis is accepted. Researcher concludes that, there is significant difference in the mean Total Income and Total Expenses among different major ports during the study period.
4. The Net Profit before taxation narrates that the calculated value of F is 0.128 which is less than the table value of 2.58 at 5% level with d.f. being BG= 2 and WG= 33 and also p value is 0.881 which is not significant. This analysis supports the null hypothesis of difference in sample means and alternative hypothesis is rejected. Researcher concludes that, there is insignificant difference in the mean Net Profit before taxation among different major ports during the study period.

#### Suggestions:

1. From the findings it is to be known that Operating Income, Operating Expenses, Total Income, and Total Expenses are different based on the performance. Therefore calculations in subcategories of above variables are concentrated more.
2. It is to be found that apart from above variables other variables determine overall profit.
3. These subcategories calculations are vary from one port to another port. Yet operating profit and net profit are finally calculated by adopting similar methods that recommended by major port act.
4. They must adopt same policies and clearly laid down what are all the headings come under subcategories.
5. They must improve the operating income, total income with the help of internal auditors and cost auditor and reduce the operating expenses and total expenses to minimize the cost.

#### Conclusion:

Port is a backbone of the economic growth in any country. A thick relationship has been found between the level of economic growth and the quantum of loading and unloading cargoes. Evaluating profitability is essential in port sector as it supports more number of related activities.

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