FINANCIAL PERFORMANCE ANALYSIS OF SELECTED MAJOR PORT TRUSTS IN INDIA

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ABSTRACT

Though the maritime facility plays very important role in business and trade from ancient time but in the last decade, due to enormous upshot of globalization the world economy has experienced a rapid growth in shipping industry and international trade. The need for financial performance analysis arises here for better performance and efficiency thus increasing the total country's revenue and growth. This study is mainly focused on the financial performance analysis of 5 major port trusts of India i.e. Jawaharlal Nehru Port Trust (JNPT), Mumbai Port Trust (MbPT), Deendayal Port Trust (DPT), Syama Prasad Mookerjee Port Trust (SMP) and Visakhapatnam Port Trust (VPT). The study is confined to 5 difference ratios to analyze the financial performance of the Port trusts in India i.e. Current Ratio, Quick Ratio, Return on Capital Employed, Return on Equity and Debt-Equity Ratio. The Data for the 5 years from 2016-17 to 2020-21 are gathered and analysed using ANOVA test. The analysis shows that there is a significant difference between the selected ports for the four out of five ratios and it is for Current Ratio, Quick Ratio, Return on Equity and Debt-Equity Ratio.

Keywords: Financial Performance, Port Trust, Major Port, Non-Major Port.

INTRODUCTION

A port is a geographical location at the sea shore where ships load and unload their carriage. Ports are classified as major port and non-major port in India. This is merely based on controlling authority. The Major ports directly fall under the Ministry of Port, Shipping & Waterways. Non-major ports are operated under concessions from state maritime boards or state governments. Tariff Authority for Major Ports (TAMP) regulates tariffs for vessels and cargo, and decides rates for lease of properties of major port trusts. Non-major ports are comparatively free to set their own tariffs and hence have the advantage of attracting more cargo. India has a coast line of 7,517 km with 12 major ports and over 200 non-major ports. Government of India is making efforts to increase the capacity of Indian ports to meet the growing demand since the Indian exports/imports are typically carried through transshipment centers in Colombo, Singapore and Dubai. The

objective of this paper is to analyze the financial performance of 5 major port trusts i.e. Jawaharlal Nehru Port Trust (JNPT), Mumbai Port Trust (MbPT), Syama Prasad Mookerjee Port Trust (SMP), Deendayal Port Trust (DPT) and Visakhapatnam Port Trust (VPT).

REVIEW OF LITERATURE

Rajyalakshmi and Sarada (2007) in their paper, "Productivity of Major Indian Ports: A Comparative Study of Pre and Post Reform Period" focused on productivity of Indian ports in handling the exports and imports. It studied the pre and post reform labour, capital and total factor productivities and average turnaround time and berth occupation of India ports. As a result of privatization there has been increase in labour productivity. This can be done by training and transfer surplus employees to the required departments. The post reform capital productivity was very low. The optimum or maximum utilization of the existing facilities was the need of the hourwas noted that poor rail and road connectivity was affecting cargo movement. Good road rail port connectivity would be helpful in encouraging port trade.

Munim, Ziaul Haque et al. (2014) in their research paper "Operational and Financial Performance Analysis of Chittagong Port Authority in Comparison with the Maritime and Port Authority of Singapore." Analysed that, though the maritime facility plays very important role in business and trade from ancient time but in the last decade, due to enormous upshot of globalization the world economy has experienced a rapid growth in shipping industry and international trade. Bangladesh being a global front-runner in the RMG export uses its largest sea port Chittagong Port Authority (CPA) to connect to the whole world. Apart from RMG, Bangladesh's main export items include leather goods, jute, tea and frozen foods. On the other hand, Bangladesh imports electronic and automotive goods, consumer goods, chemical etc. from many other countries but mostly from China, Japan and India. Maximum 80% of the total import and export of the country is handled through CPA which contributes to 33% of the Bangladesh Government's total revenue.

Surykant and Ranjit (2017) in their article "Comparing and Contrasting Competitiveness of Major Indian and Select International Ports", examined the port competiveness port operators and authorities involve in opportunities in improving the trade. Many international ports perform very well in the competitiveness of global ports as compared to the Indian major ports. The study assessed various factors influencing competitiveness between Indian major ports. It found that only locations, capacity, performance, cost or infrastructure influence competitiveness, but economies in shipping, governance, competition, inter-firm networks and modernization also contribute for the effective competitiveness among ports.

Gurupandi, M. and Rajaguru, M. (2018) in their article, "Traffic Performance and Efficiency of Major Ports in India", analysed that ports play a vital role in India's overall economic development. By volume, 90% of the country's international trade relies on maritime transport (70% by value). India's port network comprises 13 major and 187 non-major ports. This study is entirely based on secondary data which was collected from the reports of port authorities, CMIE data bases and India State websites. The main objectives this article includes 1. To measure the operational efficiency and performance of major ports in India 2. To offer suggestion based on the findings of the study. Internally also they are facing severe competitions from non-major ports and are losing their market share to them year after year.

RESEARCH METHODOLOGY

Sample Size: 5 major port trusts were selected for the study i.e. Jawaharlal Nehru Port Trust (JNPT), Mumbai Port Trust (MbPT), Deendayal Port Trust (DPT), Syama Prasad Mookerjee Port Trust (SMP) and Visakhapatnam Port Trust (VPT).

Time Period: The data of the 5 year from 2016-17 to 2020-21 were used for the study.

Sampling Technique: In present research, the sample were selected using convenience sampling. The sample of the present study represented the population as it is having a major share in the Indian port sector.

Data Type: For achieving the objective of this study and to conduct the investigation, data was collected from secondary sources: The Secondary data was collected through Annual and administration reports of the selected major port trusts. Further Journals, Research papers, and case–study, Websites, Articles with internet was used with google.com, Google Scholar websites.

Data analysis Tool: Data gathered from the annual and administration report of the selected major port trusts were analyzed with ANOVA.

DATA ANALYSIS

The data gathered from the 5 selected major port trusts for the period of 5 years are presented in the following table:

CURRENT RATIO

The current ratio compares liabilities that fall due within the year with cash balances, and assets that should turn into cash within the year. It assesses the company's ability to meet its short-term liabilities.

Table-7.1 Current ratio of Port Trusts under study from 2016-17 to 2020-21.

	JNPT	MbPT	DPT	VPT	SMP
2016-17	2.83	0.75	1.86	0.98	1.21
2017-18	2.81	0.76	1.65	0.95	1.24
2018-19	2.51	0.76	1.53	0.85	1.28
2019-20	2.35	0.80	1.15	0.94	1.26
2020-21	2.15	0.83	1.20	1.14	1.25
MEAN	2.530	0.780	1.478	0.972	1.248
S.D.	0.293	0.033	0.301	0.105	0.025
C.V. (%)	11.58	4.23	20.36	10.80	2.003

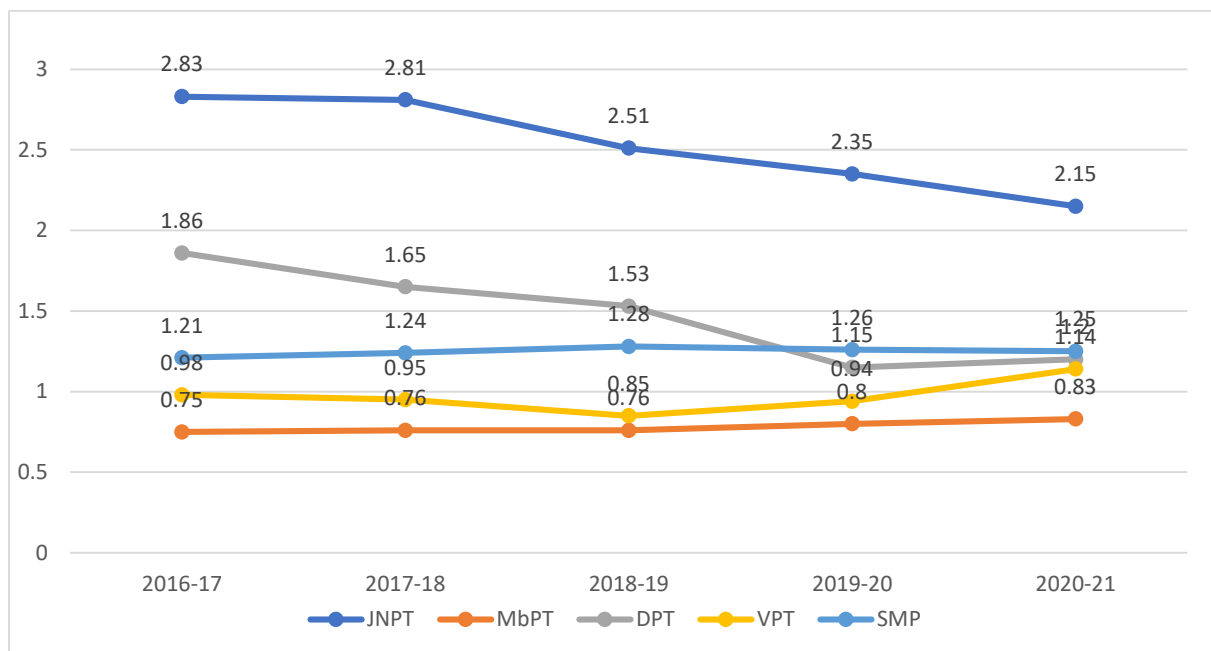Source: Annual Reports of the Port Trusts under study

Figure-7.1: Current ratio of port trusts under study

The current ratio for JNPT is continuously decreasing during the study period. It was 2.83 in 2016-17 and 2.15 in 2020-21. The average current ratio for JNPT was 2.530 with std. deviation 0.293. The current ratio for MbPT was increasing continuously, it was 0.75 in 2016-17 and 0.83 in 2020-21. The average current ratio for this port was 0.78 with standard deviation 0.033. Further, the current ratio for DPT was decreasing till 2019-20 and then in 2020-2, it was increased. Average current ratio for DPT was 1.478 with standard deviation 0.301. The VPT has shown declining trend in current ratio till 2018-19 after that it was increased. VPT's average current ratio was 0.972 with standard deviation of 0.105. At last, SMP has shown increasing trend till 2018-19, then current ratio was declined in 2019-20 and 2020-21. The JNPT has the higher current ratio among all the selected port trusts.

The following hypothesis is formulated:

H1= There is a significant difference between current ratio of selected major port trusts.

Table 7.2
ANOVA: CURRENT RATIO

Source	Sum of Square	DF	Mean Square	F Ratio	Sig.
Between Groups	9.368	4	2.342	61.582	<.001
Within Groups	.761	20	.038		
Total	10.129	24			

F ratio = 61.582

Critical F at 5% significant level for df (4,20) = 2.87.

Conclusion: The above ANOVA table reveals that the computed F value is higher than the critical F value. So, the null hypothesis is rejected here and the difference in current ratio of the selected port trusts is significant.

QUICK RATIO

The quick ratio (acid test) recognises that inventory often takes a long time to convert into cash. It therefore excludes inventory values from liquid assets.

Table-7.3 Quick Ratio of Port Trusts under study from 2016-17 to 2020-21.

	JNPT	MbPT	DPT	VPT	SMP
2016-17	2.19	0.55	1.18	0.64	1.03
2017-18	2.10	0.65	1.64	0.61	1.04
2018-19	2.36	0.66	1.40	0.48	1.05
2019-20	2.30	0.73	1.00	0.57	1.03
2020-21	1.86	0.75	1.10	0.66	1.04
MEAN	2.160	0.668	1.464	0.592	1.038
S.D.	0.196	0.078	0.473	0.071	0.008
C.V. (%)	9.074	11.67	32.31	11.99	0.77

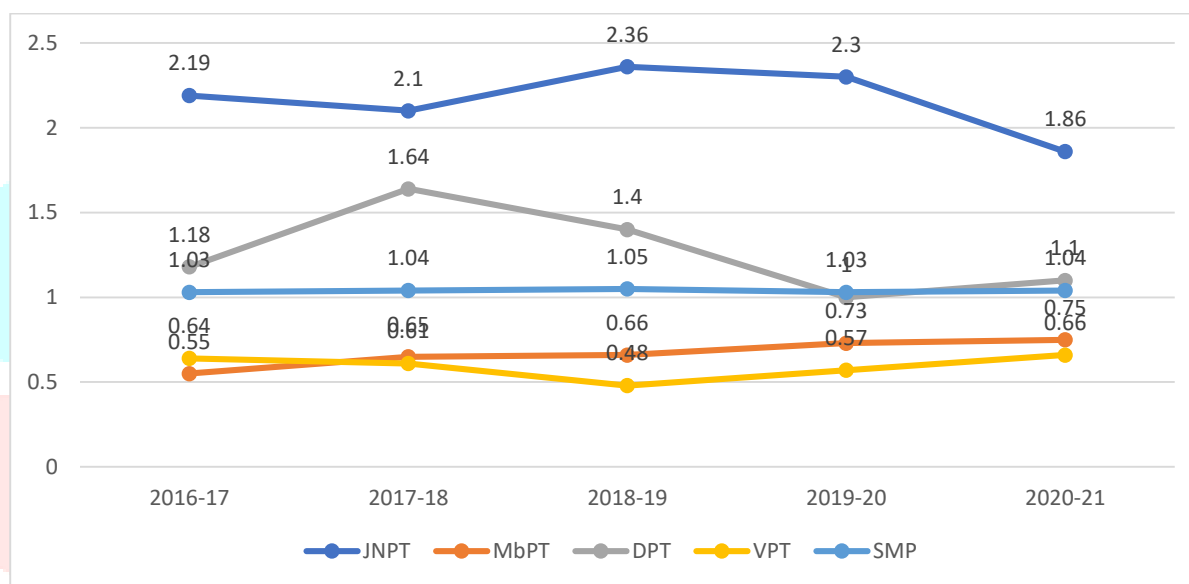Source: Annual Reports of the Port Trusts under study

Figure-7.2: Quick ratio of port trusts under study

The quick ratio for JNPT was fluctuating continuously in the study period. The quick ratio was highest in 2018-19 then it was declined continuously. The average quick ratio for JNPT was 2.160 with 0.196 standard deviation. The MbPT has shown the increasing trend in all the years under study. Its average quick ratio was 0.668 with standard deviation 0.078. Quick ratio for DPT was increasing till 2018-19 after that it declined to 1.10 in 2020-21. The average quick ratio for DPT was 1.464 with standard deviation of 0.473. The VPT has shown a fluctuating trend in quick ratio. Average quick ratio for VPT was 0.592 with standard deviation of 0.071. At last, the average quick ratio for SMP was 1.038 with standard deviation 0.008.

The JNPT has the highest quick ratio among all the port trusts under the study.

The following hypothesis is formulated:

H1= There is a significant difference between quick ratio of selected major port trusts.

Table 7.4

ANOVA: QUICK RATIO

	Sum of Square	DF	Mean Square	F Ratio	Sig.
Between Groups	8.365	4	2.091	38.193	<.001
Within Groups	1.095	20	.055		
Total	9.460	24			

F ratio = 38.493

Critical F at 5% significant level for df (4,20) = 2.87

Conclusion: The above ANOVA table reveals that the computed F value is higher than the critical F value. So, the null hypothesis is rejected here and the difference in quick ratio of the selected port trusts is significant.

RETURN ON CAPITAL EMPLOYED

The term return on capital employed refers to a financial ratio that can be used to assess a company's profitability and capital efficiency. In other words, this ratio can help to understand how well a company is generating profits from its capital.

Table 7.5 Return on Capital Employed of port trusts under study from 2016-17 to 2020-21

	JNPT	MbPT	DPT	VPT	SMP
2016-17	10.70	-15.29	27.07	1.82	-12.34
2017-18	10.09	-30.81	8.56	14.86	-11.25
2018-19	9.69	-55.67	6.91	8.90	1.88
2019-20	10.75	25.78	30.83	15.40	1.40
2020-21	8.02	12.84	11.78	11.06	1.83
MEAN	9.85	-12.63	17.03	10.41	-3.69
S.D.	1.11	32.84	11.10	5.50	7.41
C.V. (%)	11.27	-260.02	65.18	52.83	-200.81

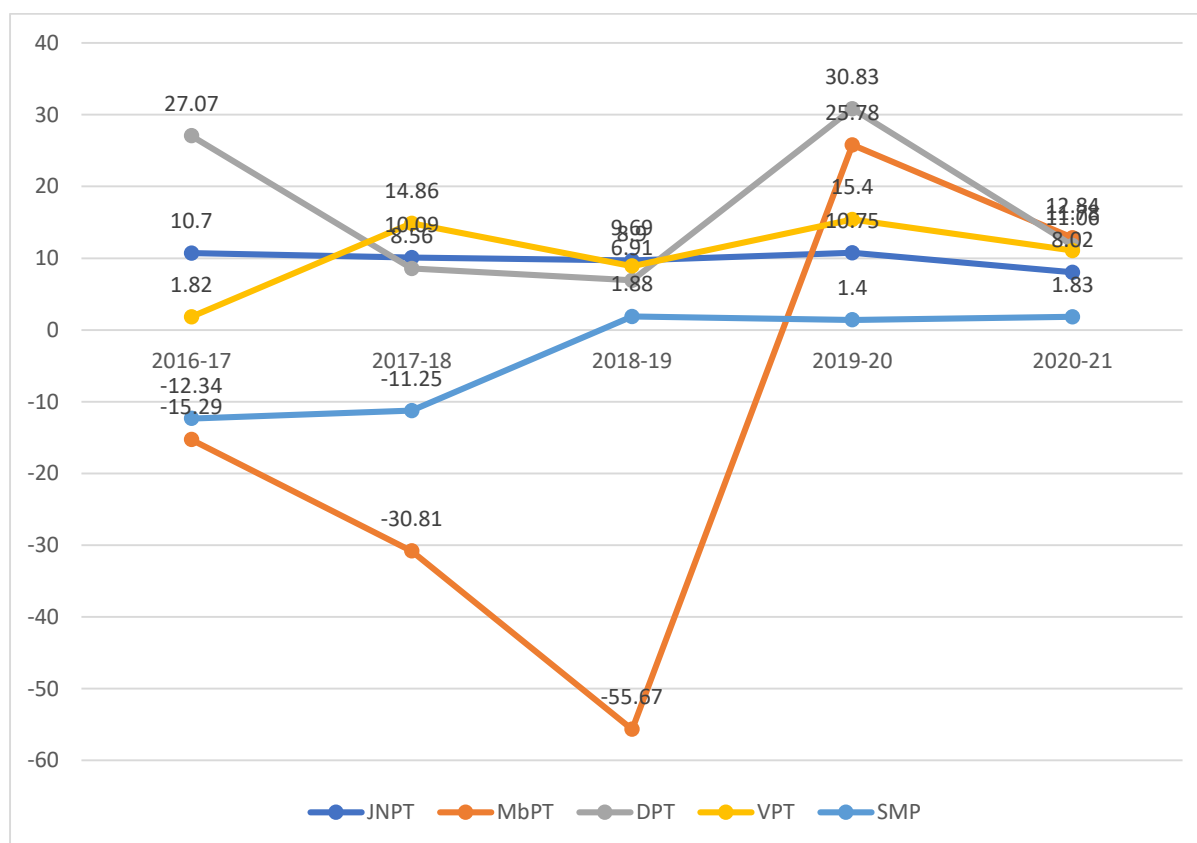Source: Annual reports of the port trusts under study.

Figure-7.3: Return on Capital employed of port trusts under study

The Return on Capital Employed for JNPT was decreasing continuously during the study period except 2019-20 and it was 10.70 in 2016-17 and 8.02 in 2020-21. The average Return on Capital Employed for JNPT was 9.85 with standard deviation 1.11. Further, the MbPT has shown decreasing trend in Return on Capital Employed except 2019-20 and it varies between -55.67 to 25.78. The MbPT has faced loss in the first three years of the study. The average Return on Capital Employed for MbPT was -12.63 with standard deviation 32.84. The DPT has shown declining trend in Return on Capital Employed except 2019-20. The average Return on Capital Employed for DPT was 17.03 with standard deviation 11.10. VPT has shown fluctuating trend in Return on Capital Employed during the study period and it varies between 1.82 and 14.86 and the average Return on Capital Employed was 10.41 with standard deviation 5.50. At last, SMP has also shown increasing trend except 2019-20 and it has faced loss in 2016-17 and 2017-18. The average Return on Capital Employed during the study period for SMP was -3.69 with standard deviation 7.41.

Return on Capital Employed was the highest for DPT while MbPT has the lowest Return on Capital Employed during the study period.

The following hypothesis is formulated:

H1= There is a significant difference between Return on Capital Employed of selected major port trusts.

Table 7.6

ANOVA: Return on Capital Employed

	Sum of Square	DF	Mean Square	F Ratio	Sig.
Between Groups	2903.330	4	725.833	2.817	.053
Within Groups	5152.575	20	257.629		
Total	8055.906	24			

F ratio = 2.817

Critical F at 5% significant level for df (4,20) = 2.87

Conclusion: The above ANOVA table reveals that the computed F value is lower than the critical F value. So, the null hypothesis is accepted here and the difference in return on capital employed of the selected port trusts is not significant.

RETURN ON EQUITY

Return on Equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. ROE is considered a gauge of a corporation's profitability and how efficient it is in generating profits. The higher the ROE, the more efficient a company's management is at generating income and growth from its equity financing.

Table 7.7 Return on Equity of port trusts under study from 2016-17 to 2020-21

	JNPT	MbPT	DPT	VPT	SMP
2016-17	11.08	-6.273	14.57	1.14	-7.05
2017-18	10.75	-13.947	5.65	8.81	-6.72
2018-19	9.76	-22.442	4.92	5.41	1.16
2019-20	9.71	6.997	12.19	10.64	0.96
2020-21	6.90	3.583	5.67	8.31	1.41
MEAN	**9.64**	**-6.42**	**8.60**	**6.86**	**-2.05**
S.D.	**1.65**	**12.18**	**4.45**	**3.71**	**4.42**
C.V. (%)	**17.12**	**-189.72**	**51.74**	**54.08**	**-215.61**

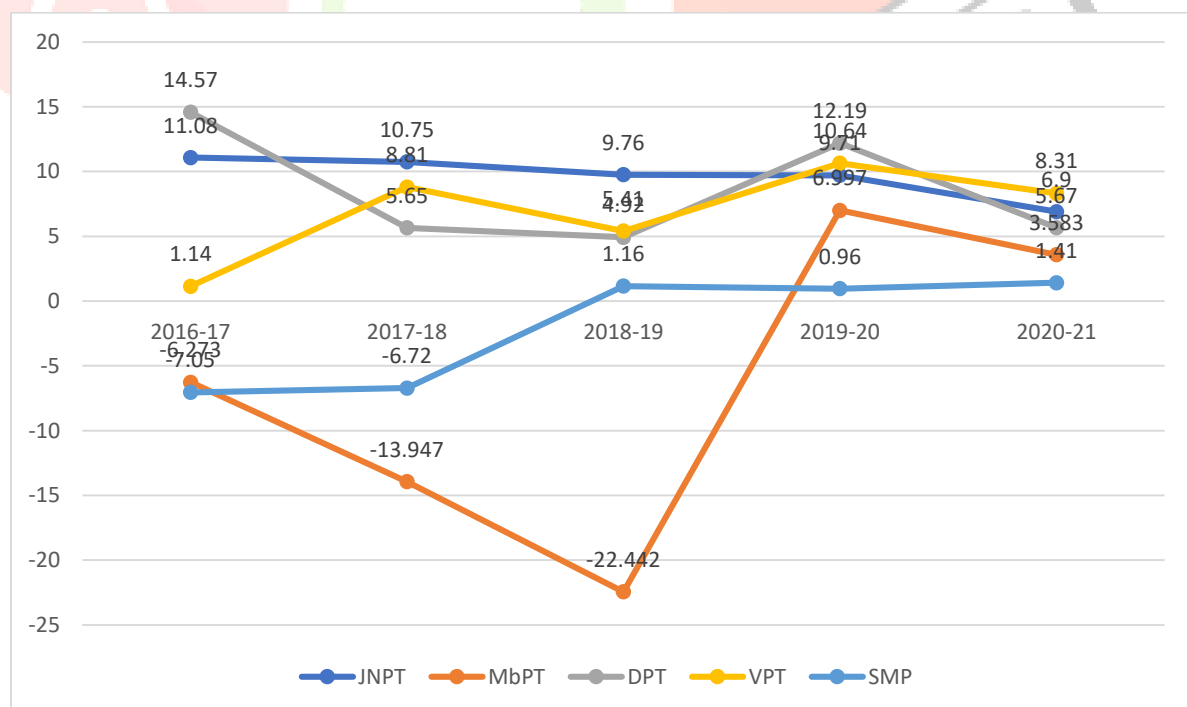Source: Annual reports of the port trusts under study.

Figure-7.4: Return on Equity of port trusts under study

The Return on Equity for JNPT was decreasing continuously during the study period and it was 11.08 in 2016-17 and 6.90 in 2020-21. The average Return on Equity for JNPT was 9.64 with standard deviation 1.65. Further, the MbPT has shown decreasing trend in Return on Equity except 2019-20 and it varies between -22.442 to

6.997. The MbPT has faced loss in the first three years of the study. The average Return on Equity for MbPT was -6.42 with standard deviation 12.18. The DPT has shown declining trend in Return on Equity except 2019-20. The average Return on Equity for DPT was 8.60 with standard deviation 4.45. VPT has shown fluctuating trend in Return on Equity during the study period and it varies between 1.14 and 10.64 and the average Return on Equity was 6.86 with standard deviation 3.71. At last, SMP has also shown increasing trend except 2019-20 and it has faced loss in 2016-17 and 2017-18. The average Return on Equity during the study period for SMP was -2.05 with standard deviation 4.42.

Return on Equity was the highest for JNPT while MbPT has the lowest Return on Equity during the study period.

The following hypothesis is formulated:

H1= There is a significant difference between Return on Equity of selected major port trusts.

Table 7.8

ANOVA: Return on Equity

	Sum of Square	DF	Mean Square	F Ratio	Sig.
Between Groups	1019.857	4	254.964	6.246	.002
Within Groups	816.392	20	40.820		
Total	1836.249	24			

F ratio = 6.246

Critical F at 5% significant level for df (4,20) = 2.87

Conclusion: The above ANOVA table reveals that the computed F value is higher than the critical F value. So, the null hypothesis is rejected here and the difference in return on equity of the selected port trusts is significant.

DEBT-EQUITY RATIO

Debt-to-equity ratio is used to evaluate a company's financial leverage and is calculated by dividing a company's total debts by its shareholder equity. It is a measure of the degree to which a company is financing its operations with debt rather than its own resources.

Table 7.9 Debt-Equity ratio for the port trust under study from 2016-17 to 2020-21.

	JNPT	MbPT	DPT	VPT	SMP
2016-17	0.07	5.14	2	3.48	0
2017-18	0.21	8.808	0.39	2.47	0
2018-19	0.29	12.741	0.35	1.70	0
2019-20	0.26	15.848	0.29	0.91	0
2020-21	0.20	5.644	3.16	0.27	0
MEAN	0.21	9.63	1.24	1.77	0
S.D.	0.08	4.61	1.29	1.27	0
C.V. (%)	38.09	47.87	104.03	71.75	0

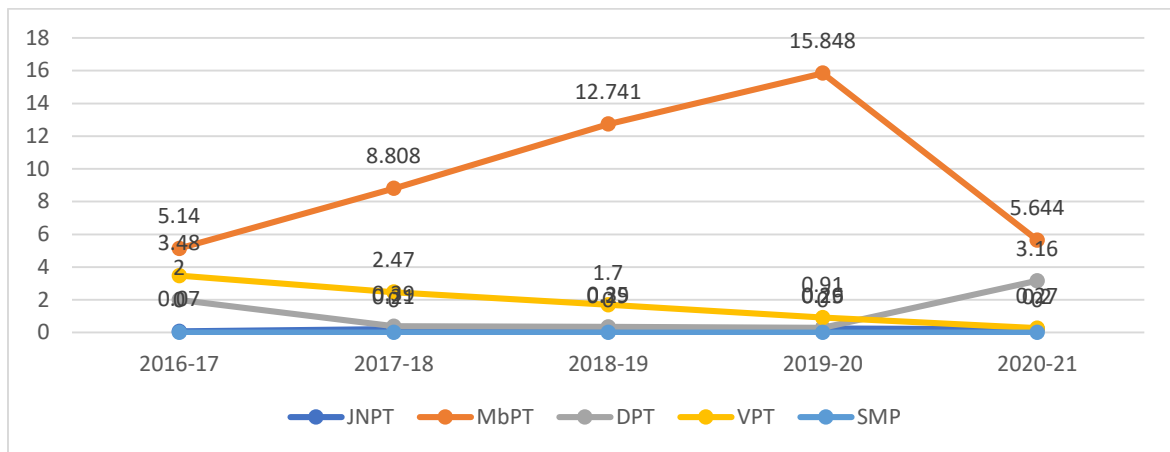 Source: Annual reports of the port trusts under study.

Figure-7.5: Debt-Equity ratio of port trusts under study

The debt-equity ratio for JNPT was increasing till 2018-19 after that it declined. The average debt-equity ratio was 0.21 with standard deviation of 0.08. For MbPT, the debt-equity ratio was increasing continuously till 2019-20 but it was declined in 2020-21. The average debt-equity ratio was 9.63 with standard deviation of 4.61. Further, DPT has shown declining trend till 2019-20. The average debt-equity ratio for DPT was 1.24 with standard deviation 1.29. For VPT, the ratio was declining continuously in the study period. The average was 1.77 with standard deviation 1.27. At last, for SMP it was zero in all the years under study.

SMP has the lowest debt-equity ratio among all the ports under study while MbPT has the highest debt-equity ratio.

The following hypothesis is formulated:

H1= There is a significant difference between Debt-Equity ratio of selected major port trusts.

Table 7.10

ANOVA: Debt-Equity ratio

	Sum of Square	DF	Mean Square	F Ratio	Sig.
Between Groups	322.429	4	80.607	16.430	<.001
Within Groups	98.123	20	4.906		
Total	420.553	24			

F ratio = 16.430

Critical F at 5% significant level for df (4,20) = 2.87

Conclusion: The above ANOVA table reveals that the computed F value is higher than the critical F value. So, the null hypothesis is rejected here and the difference in debt-equity ratio of the selected port trusts is significant.

CONCLUSION

There are many ways to analyze the financial performance of major port trusts. In this paper, the Liquidity, Capital structure and Profitability of selected major port trusts operating in India are analyzed and their performance is compared. From the standpoint of liquidity, JNPT is performing better as both the current ratio and quick ratio were higher in case of JNPT in comparison to other ports. The Debt-Equity Ratio was zero in case of SMP, so SMP is less exposed to financial risk in comparison to others. From the profitability measures, especially for Return on Capital Employed, DPT has performed better in comparison to other selected ports. For the Return on Equity Ratio, the JNPT has performed better in comparison to other selected ports.

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