A STUDY ON THE PERFORMANCE OF MAJOR PORTS IN INDIA

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ABSTRACT

India has 13 major ports and 176 non-major ones. The major ports carry about 3/4th of the total traffic. Despite adequate capacity and handling facilities the average turnaround time of major Indian ports is less than 4 days which is very high compared to the average turnaround time of about 10 hrs in Hong Kong. This undermines the competitiveness of Indian ports. Since the ports are not adequately linked to the Hinterland, the evacuation of Cargo is slow leading to congestion. To this end, all ports trust have set up groups with representatives from the National Highway Authority of India (NHAI), Railways and State Governments to prepare comprehensive plans aimed at improving road-rail connectivity of ports. The NHAI has taken up port connectivity as major component of the National Highways Development Project. Traditionally, most ports in the world are owned by the Public Sectors. In the recent years privatization of ports facilities and services are gaining momentum. In India an enabling policy framework has been put in place by the Government as a step towards this direction. Depending on the nature of the facilities/service, private operators can enter into the service contract, the management contract a concession agreement to operate port services. Areas that have been opened up to the private sectors on BOT basis include construction of CARGO handling berths and dry docks, container terminals and warehousing facilities and ship repair facilities. The shipping services in India are patterned similar to the global shipping services, namely, tramps and liners. The types of ships engaged in India’s overseas trade include dry cargo liners, cellular container ships, dry cargo bulk carriers, ore/oil/bulk carriers, oil tankers (product carriers), passenger cum-cargo vessels, acid carriers, timer carriers, LPG carriers, etc. The shipping industry also caters to the requirements of coastal trade and offshore supply vessels (OSVs) for ONGC and GAIL. The aim of the study is to measure the performance of major ports of India.

Keywords: Major ports, Coastal trade, Vessels
1. INTRODUCTION

International trade is a cornerstone of the global economy. Exchange of goods amongst countries widen the choice of supply and ensures that production takes place where it is cheapest and best. This is reflected in the intensification of globalization and the fact that world trade is growing faster than the world output. World trade relies on cheap and secure transport. Maritime transport, enabled by technological developments and competitive transport costs, is estimated to handle over 80% world trade by volume and over 70% by value. As trade grows, the demand for maritime transport also grows. Technological developments in bulk and container transport have made maritime transport cheaper. Bulk transport involves shipping one homogeneous commodity (e.g. grain, ore etc) at any one time, but in large quantities; in contrast, container transport entails transporting different goods at the same time, but in standard containers that are easy to load and unload. However, the slower growth in world seaborne trade compared to world trade in general reflects that the weight of the goods transported increases at a slower rate than their value due to rising trade in processed goods like electronic items, medicines, apparel, gems and jewellery etc. Besides, greater use of lighter materials and lower material intensity in the manufacturing process has also led to slower increase in weight.

Ports are economic and service provision units of a remarkable importance 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 ports lies in their intermodal nature. India has a coast-line of around 7517 Kms with 13 major ports and 176 notified non-major ports along the coast-line and sea-islands.

India is a major maritime nation by virtue of its long coast line of around 7517 Kms on the western and eastern shelves of the mainland and also along the islands, bejewelled with 13 major and 176 non-major ports, strategically located on the world’s shipping routes, its long tradition of seafaring with a large pool of trained maritime personnel, and its dynamic and rapidly globalizing economy with a vast potential to expand its participation in trade and development.

India has been an emerging and vibrant economy with a huge market, a billion plus population and strong GDP growth rates of over 9% for three consecutive years up to 2008-09. However, due to the global melt-down and recession, the GDP growth slowed down to 6.7% in 2008-09. But, with global recovery under way and backed by strong decisive policy responses, the economy performed better in 2009-10 and achieved growth rate of 7.1% , it is likely to grow at 9.2% during 2010-11. As forecast made by many global institutions, India along with China will lead Asia’s economic expansion from 2010 onwards.

Ports play a vital role in the overall economic development of the country. About 90% by volume and 70% by Value of the country’s international trade is carried on through maritime transport. Development of India’s ports and trade related infrastructure will continue to be critical to sustain the success of accelerated growth in the Indian economy. Despite record growth rates, the merchandise trade intensity of India’s GDP is still below 30 per cent. This indicates that there is still a lot of untapped potential for trade growth, and consequently the demands on the country’s
ports and trade infrastructure will continue to mount as trade diversifies and grows. Hence, there is a need to expand the Country’s ports in a timely and efficient manner. India’s ports comprise of 13 major ports including Port Blair Port Trust which was declared as a Major Port on 1-06-2010 and around 176 non-major ports along the coast and islands.

The total volume of traffic handled by all the Indian Ports during 2009-10 was 849.9 million tonnes. Non-major ports account for around one-third of the total seaborne trade. The growth in cargo handled at Major and Non-major Ports in 2009-10 was 5.8% and 35.4% respectively as compared to 2.2% and 3.3% achieved in 2008-09.

2. CARGO TRAFFIC AT INDIAN PORTS

Ports are economic and service provision units of a remarkable importance since they act as a place for the interchange of transport modes such as maritime and land, whether by rail or road. Therefore, the essential aspect of ports lies in their intermodal nature. India has a coast-line of around 7517 Kms with 13 major ports and 176 notified non-major ports along the coast-line and sea-islands. The total cargo handled at Indian Ports (major and non-major) increased to 885 million tonnes in 2010-11 from 850 million tonnes in 2009-10 reflecting modest increase of 4.2% during 2010-11 as given in Table-1 & Chart-1. India’s major ports handled more than 64% of the cargo handled at Indian ports. The growth profile of cargo throughput at India’s major and minor ports in terms of their coastal and overseas trade during 2006-07 to 2010-11 as given in Table-2.

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<th>Port</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OCT</td>
<td>CCT</td>
<td>TCT</td>
</tr>
<tr>
<td>All Ports</td>
<td>611</td>
<td>133</td>
<td>744</td>
</tr>
</tbody>
</table>

**Table 1 Cargo Handled at Indian Major Ports**

**Note:** OCT: Overseas Cargo Traffic, CCT: Coastal Cargo Traffic, TCT: Total Cargo Traffic

**Source:** Port Statistics of India

![Chart-1](http://www.iaeme.com/IJM/index.asp)
A Study on The Performance of Major Ports In India

<table>
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<td>Major</td>
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<td>2.2</td>
<td>6.21</td>
<td>3.6</td>
<td>5.7</td>
<td>2.46</td>
<td>-2.01</td>
<td>1.6</td>
</tr>
<tr>
<td>Non-Major</td>
<td>3.5</td>
<td>2.1</td>
<td>3.3</td>
<td>32.7</td>
<td>53.1</td>
<td>35.5</td>
<td>9.7</td>
<td>6.19</td>
<td>9.14</td>
</tr>
<tr>
<td>All Ports</td>
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<td>2.8</td>
<td>2.5</td>
<td>14.2</td>
<td>14.6</td>
<td>14.3</td>
<td>4.98</td>
<td>0.43</td>
<td>4.17</td>
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</tbody>
</table>

Note: OCT: Overseas Cargo Traffic, CCT: Coastal Cargo Traffic, TCT: Total Cargo Traffic (in %)

Source: Port Statistics of India

3. PORT VOLUMES HAVE POSITIVE CORRELATION WITH GDP GROWTH

Ports play a vital role in the overall economic development of India. This is so because maritime channels account for ~90% by volume (and 70% by value) of the country’s international trade. The importance and growth potential is highlighted by the fact that over growth in cargo handled (an 8.6% CAGR) outpaced GDP growth (at a 7.6% CAGR). Thus, there is a positive correlation between GDP growth and cargo volume growth handled by ports. One can infer that enhancement and development of port infrastructure would be a critical enabler of growth of the Indian economy.

4. RAPIDLY CHANGING CARGO-MIX DRIVING VOLUMES

Significant growth in EXIM over the years has been driven by a rapid increase in domestic demand for various products and the emergence of India as a major manufacturing hub for the world. This has led to strong growth in port volumes over FY01-14, during which cargo traffic handled in India has nearly tripled—from 334m tons to 912m, an 8.6% CAGR.

During this period, the mix of cargo at ports has changed dramatically. Containerized trade volumes have rapidly risen—from 35.2m tons to 135.9m (a 13.1% CAGR) with its share in overall cargo traffic rising to 15%, far lower than the global standard of ~80%. Imports of coal have increased from 57.7m tons to 157.1m tons, a 9.5% CAGR. Most of the increase in coal consumption has been due to the sharp increase in the number of thermal power projects in the country. Given the slew of power projects lined up in the country (largely coal-based), coal volumes are expected to increase further. With India’s emergence as a major refining hub, POL is still a large part of the cargo mix. Growth in iron ore handled has slowed down in the past couple of years on account of the ban on iron ore mining in India. The current downtrend in iron ore cargo has been offset by the inward movement of coal in the country. Yet, over FY10-14, iron ore handled at Indian ports has increased from 46.2m tons to 96.9m tons, at a 6.9% CAGR. We expect volumes of iron ore handled at various ports to pick up once the mining ban is lifted.
5. HIGH PRE-BERTHING TIME AT MAJOR PORTS

At present, at major ports in India utilisation levels are ~90%, higher than the global ~70% standard. Some major ports in India have been operating at over 100% utilisation levels, resulting in longer turnaround time. This has resulted in high pre-berthing time at major ports, currently varying from two to 40 hours, depending on port and cargo handled. High preberthing times at major ports results in operational inefficiencies, thereby increasing costs.

6. SUBDUE VOLUME GROWTH AT MAJOR PORTS

Over 41-12 cargo volumes at major ports have risen from 281m tons to 560m tons, a 6.5% CAGR. Given the present capacity constraints at major ports and delay in capacity expansions, we expect volume growth to be subdued at major ports, thus benefiting non-major ports. In FY14, major and non-major ports in India had a cargo throughput of 912m tons, a modest 3% increase over the previous year. Thirteen major ports handled 61.4% of India’s total port cargo during FY14, and registered
negative growth of 1.7%, (a 1.6% increase in FY11). During FY14, cargo handled by major ports comprised 194.1m tons for exports, 341.6m tons of imports and 24.4m tons of trans-shipment cargo. In FY14, only two major ports were able to clock growth of over 10%, Ennore (35.8%) and Cochin (12.4%).

7. DEDICATED FREIGHT CORRIDOR TO IMPROVE PORT CONNECTIVITY

Hinterland connectivity is one the key factors in determining the success of a port. In India, roads account for the largest share of cargo traffic (~60%), much higher than global standards. Rail transportation currently accounts for ~22% of containerized trade and ~24% of overall cargo traffic in the country. Hence, the potential to increase the share of the railways in cargo transportation is huge in India. Currently, delay in cargo movement from ports results in higher operational costs – a problem that rail transportation could very well fix.

To capitalise on the rail network (the fourth-largest in the world) traversing 64,015 km, the Indian Railways has outlined its most ambitious infrastructure project, “dedicated freight corridors” (DFC) of 3,300 km along the Eastern and Western routes. These routes are highly saturated and account for ~55% of cargo traffic in India. The project cost for the entire project has been estimated at `70bn and the government plans to complete it by 2017. We believe that DFCs would be game changers for the entire transportation sector, and enhance throughput of various ports. With the dedicated network in place, it is expected that trailer loads can increase from ~4,000 to ~15,000 tons, carrying capacity from 90 containers to 400 (double stacking). Maximum speed for trains is expected to increase from 75 kmph to 100 kmph, and station spacing of 7-10 km to 40 km. With the

DFCs in place, the share of rail transportation in cargo traffic movement should go up from current levels to near optimal levels of 34%.

Bottlenecks at major ports buoy volumes at non-major ports Volume growth at non-major ports in India has been buoyant on account of the high saturation levels at major ports. Volumes at non-major ports have recorded a 13.5% CAGR over 41-12— from 87.4m tons to 352m (vs an 8.7% CAGR for volume growth at all ports). This is much higher than volume growth at major ports. In that period, the proportion of cargo traffic at non-major ports in India has risen from 23.7% to 38.5%. Nonmajor ports would have an edge over major ports for various reasons—high revenue assurance through captive volumes, flexibility to decide tariffs to attract volumes, better infrastructure and private-sector investment. Volumes at non-major ports to exceed those at major ports Over FY01-14, the proportion of coal handled at non-major ports rose significantly; volumes swelled from 9.6m tons to 78.4m. Today, non-major ports handle quantities of coal equal to those handled by major ports. India now accounts for ~20% of global coal imports.

The International Energy Agency estimates that by FY17 India will be the world’s second-largest coal importer and the largest by sea-borne trade. This increase originates from power-sector requirements (several commissioned projects and those in pipeline). In that period, volumes of POL handled at non-major ports have risen sharply, from 46.4m tons to 161.1m tons. Growth here has been driven by the sharp scaling up in refining capacities in India. The government estimates that non-major ports in India will handle 1,270m tons during FY20, more than major ports (1,215m tons). Volume growth of non-major ports would be primarily fuelled by coal (a 20% CAGR expected) on account of projected thermal power capacity additions. Non-
major ports, still lag major ports in container volumes (15.7m tons vs 120.2m tons in FY14) and container volumes are expected to increase at a 38.3% CAGR for non-major ports due to greater operational efficiencies. The proportion of petroleum and associated products (45.8%), the single largest commodity handled at non-major ports in FY14, is expected to decline.

8. CARGO TRAFFIC AT INDIAN PORTS
During the first half (April-September) of 2012-13 major and non major ports in India accomplished a total cargo throughput of 455.8 million tonnes reflecting an increase of only 1.8% over the same period last year. This is mainly attributable to a decline of 3.3% in the cargo handled at major ports during the first half of the year. In contrast, non-major port’s growth increased to 10.3% in the first half of 2012-13 compared to 8.2% in the corresponding period of 2011-12. The growth in India’s GDP, Port traffic and growth in world output, world export volume and world seaborne trade (loadings and unloading) since 2006-07.

9. CONCLUSION
The maritime sector was growing at a brisker pace and those plans took into consideration the prospective growth rates. But, unfortunately, with the global slowdown and recession, the major global economies have taken a tumble in every sector. Shipping and Ports are no exception. Accordingly, cargo traffic which had been growing at a rate of approximately 11% annually has shown lower growth rates. Although India has succeeded in effectively surviving the slowdown with the fundamental strength of the economy and the systems and with the various policy measures, achieving the earlier growth rates still remains a challenge for the economy. The current economic indicators clearly point to a robust growth of the Indian economy.

REFERENCES
A Study on The Performance of Major Ports In India


