International Journal of Multidisciplinary Research and Growth Evaluation.

India's Vizhinjam port a game changer in international transshipment

Dr. Laxmana Rao G
Associate Professor, School of Commerce and Management Studies Dayananda Sagar University, Karnataka, India

* Corresponding Author: **Dr. Laxmana Rao G**

Article Info

ISSN (online): 2582-7138
Impact Factor: 5.307 (SJIF)
Volume: 04
Issue: 06
November-December 2023
Received: 02-10-2023;
Accepted: 03-11-2023
Page No: 948-950

Abstract
This paper attempts to understand the port industry of India and what heck is a transshipment port and how it will help the export and import dealers of India and the way it will influence the progress of economy. Transshipment ports play a crucial role in worldwide trade and shipping. These ports serve as intermediaries where cargo is transferred from larger vessel to smaller feeder vessels or between different shipping routes. The primary purpose of transshipment ports is to optimize shipping routes, decrease transportation costs, and to obtain improvement in overall efficiency of the maritime supply chain**.** Some examples of well-known transshipment ports include Singapore, Rotterdam, Dubai's Jebel Ali, and Panama's Colon. These ports have become key players in the global shipping network, contributing to the smooth flow of goods across continents**.** India's upcoming port at Vizhinjam near Trivandrum in Kerala is going to become a game changer in south Asia's logistic and supply chain management operations. The said port has location advantage, as it is positioned near India's southernmost tip and just ten nautical miles from international east west shipping route.

Keywords: transhipment, Vizhinjam, port, India

Introduction

As per the ministry of Ports, Shipping and water ways, Ports are important junctions of water and land transport. India comprises of twelve Major ports under the control of ministry of shipping out of which 6 each are located in east and west coast, and two hundred non- major (minor) ports under the control of respective state governments. Out of two hundred, sixty-five are handling cargo and rest are port limits no cargo is handling. International Cargo transportation is mainly done by containers. Shobayo, P., & van Hassel, E. (2019) [11] investigate the hurdles, challenges and inefficiencies in container barge transportation in large sea ports and suggested to have dedicated barge berthing spaces for each terminal of the port. Technological upgradation is a major issue faced by all most all the ports of India. Indian ports are far from satisfactory level in terms of efficiency, and need of the hour to enhance the efficiency to boost international trade. Rajasekar, T., & Deo, M. (2018) [7] observed that, Indian ports are lagging behind the technology and technological upgradation is required for efficiency enhancement. Researchers found the negative relation between size and efficiency of ports under study. Indian ports are managed majorly by port trusts with bureaucrats and unable to compete with foreign ports. Janardhana Rao, A., Bangar Raju, T., Roy, H., & Bhanu Prakash, N. (2017) [5] studies finds the benchmarking is under process. And they proposed to benchmark the container terminals of major Indian ports. Wu, L., Adulyasak, Y., Cordeau, J.-F., & Wang, S. (2022) [13] focus on vessel service planning issues and suggested to optimization of berth allocation and pilotage scheduling in combination. Sarkar, B.D., Shankar, R. and Kar, A.K. (2023) [8] identified the major issues various inefficiencies and root causes faced by various factors of port logistics in India namely information sharing, cargo movement etc. India has approximately 7500 K M coastal line with 200 major and minor ports doted on the same, but the port infrastructure of India is depressing. Particularly after liberalization, and the emergence of global manufacture development, product exportation very quickly enlarged manyfold through the sea ports and forced the countries worldwide to undertake port reforms India is no exception.

India introduced Public Private Partnership model to enhance the capacity and efficiency of existing ports and to develop new ports with ultra-mega capacity. As per the study of Das Gupta and Sinha in 2016 not all privatized ports equally efficient and some ports registered poor performance compare to public ports. With this backdrop the government of India realized the importance to develop transshipment ports.

Objectives

The first objective of this non empirical paper is to study the current efficiencies and bottlenecks of existing ports in terms of TEUs and government of India's commitment towards the enhancement of port infrastructure through constructing transshipment hubs like Vhizinjam, Vallarpadam ports in Kerala and Galathea bay in greater Nicobar Island of Andaman and Nicobar Islands to stand up to the standards of biggest players in the port business. The second objective is to study the potential capacity of these ports in supplying clean fuels like hydrogen and green ammonia for our industries and to boost the international trade and commerce in general and exports in particular.

Normal Vs Transshipment Ports

If an export trader based in Mumbai approaches the shipping company to export electric motors to Germany, then shipping company offers two options to him, one is direct service whereby goods will be shipped in a medium sized vessel from Mumbai to Germany via Suez Canal. Now this ship only stops for refueling at multiple stops like Jebel Ali port and port of Gibraltar. This is direct service. The second option is transshipment option, under this option first motors are transported from Mumbai to Jabal Ali port in Dubai using small ship then at the Jabal Ali port, the goods will be transferred to large ship that is heading to Germany. This large ship collects goods from many such small ships to ship the goods to Germany. So, in this scenario Jabal Ali port serves as Transshipment port which helps the unload the motors from small ship and reload the same in big ship, even though the cargo is making additional stop the overall cost of delivery is reduced drastically and this gives major advantage to traders which is enhanced efficiency and economies of scale. Tagawa, H., Kawasaki, T., & Hanaoka, S. (2021) [12] examines the conditions that influences the direct and transshipment and find volume of cargo and competitiveness of the port hub are contributing factors for cost effectiveness in transshipment ports.

TEU (Twenty-foot Equivalent Units)

TEU is a standard measure used in the shipping industry to quantify a container's cargo-carrying capacity. The TEU is a unit of measurement used to standardize the capacity of various container sizes, making it easier to compare and calculate shipping volumes. One TEU is equivalent to the cargo capacity of a standard 20-foot container. The calculation is based on the volume of cargo a container can hold. The sizes of an average 20-foot container are about 20 feet in span, 8 feet in breadth, and 8.5 feet in tallness. TEUs are widely used in the shipping industry to measure and compare the capacity of container ships, container terminals, and other containerized cargo transportation infrastructure. For example, a container ship with a capacity of 5,000 TEUs can carry 5,000 standard 20-foot containers. Changes in TEU capacity are often used as an indicator of the growth and development of the global shipping industry. An increase in the size and capacity of container ships, for instance, reflects trends toward larger and more efficient vessels. As global trade has expanded, containerization and the use of TEUs have played a crucial role in streamlining the shipping process, reducing cargo handling costs, and improving the overall efficiency of maritime transportation. A large container vessel carries more than 10,000 TEU, it provides a cost saving of 30% per TEU as compared to the smaller vessels which usually carry 4000 TEU. This is reason Transshipment hubs are very useful and very important for trading. Banerjee, S., & Mukherjee, P. (2022) [1] observed the fact, 70 % of total value of world trade is facilitated by ports through containerization of cargo delivery later 90s.

Bottlenecks of Indian ports

Though India has approximately 7,500 K M of massive coastal line spread across nine coastal states namely Gujarat, Maharashtra, Goa, Karnataka and Kerala (West Coast) Tamil Nadu, Andhra Pradesh, Orissa and West Bengal (East Coast) and around 200 major and minor ports, the countries port infrastructure is inadequate. None of these ports listed in top 30 ports of world. Besides most of the Indian ports have shallow drafts. As a result, Vessels with large tonnage, increasingly the norm in international maritime today, cannot dock at Indian ports. Consequently, large container vessels with consignment meant for India are depending on neighboring transshipment ports like Singapore port, Colombo port, Malaysia's Klang port, and Dubai's Jabal Ali Port. India has been heavily dependent on these ports for transshipment of cargo. In fact, Chaina alone has more than sic transshipment hubs, whereas Indian has zero transshipment hubs. Currently nearly 75% of India's transshipped cargo is handled at foreign ports. Singapore's Klang ports handling over 85% of this cargo, Colombe port alone handles 45% of India's transshipped consignments. As a result, India is losing considerable amounts of foreign exchange. Sarkar, B.D., Shankar, R. and Kar, A.K. (2023) [9] made empirical study and on non-public port logistic issues and identified issues such as unpredictability in cost and time for key processes. Researchers suggested port managements to develop suitable policies to deliver the cargo at right time in right place. Approximately 95% of India's trading volume and 70% by value are done through maritime ports.

Vizhisinnjam's Poat Strategic Location

The nearness to the international shipping ways that accounts for 30% of international cargo traffic and a natural drift that goes up to 24 meters below the sea makes Vizhinjam a perfect transshipment hub for some of the biggest ships to call on the ports there by boosting the efforts to make India the world's factory by improving container and cargo traffic. Until now, the biggest container ships have been avoiding India because its harbors weren't deep enough to lunger such vessels and docking at neighboring ports such as Sri Lanka's Colombo, Dubai and Singapore. Sheelam, H., & Goud, M. M. (2023) [10] talked the necessity to recognize the issues that contribute to the strategic development of ports for building a global competitive position. As per the study, extent literature is available for foreign ports and recent Indian policies are failure orients and are focused towards expanding the role of ports beyond common trading centers. Vizhinjam's deep draft and location make it attractive transshipment option. Unlike the present capacity of existing ports of small ships

with 4,000 to 8,000 TEUs, it can accommodate ultra large next - gen container ships ranging from 10,000 to 25,000 TEUs. As per the initial plan, this port is wholly owned by government of Kerala, developed by Adani Vizhinjam Port private limited under DBFOT (Design, Built, Finance, Operate and Transfer) scheme adopting public private partnership model.

Conclusion

Improvement in port related infrastructure leads to promote imports and exports. Inadequacies in road, rail, water ways and airways will hamper the exports of the country. It's Government's duty to Fund the port related infra projects to support the export potential industries like automobiles (South India) and Firework industry (Siva Kashi) of the country. A study made by Corton Gaddam, J. (2016) [2] reveals the fact of improvement in the India's exports of automobile products to foreign countries. India needs to walk extra mile to compete China in terms of exports a study made by Ganai, S. G., Khan, J. A., & Bhat, S. A. (2023) [4] revels that, India has exposed a optimistic response in enhancing its competitive positioned products from low to medium technology.

References

1. Banerjee S, Mukherjee P. Coastal Leadership: Impact of Port Investments on Port Urbanisation at Major Ports in India. International Journal on Leadership. 2022; 10(1):41-44.
2. Corton Gaddam J. Analysis of Growth of Exports and Geographic Concentration of Automobile Industry in India. Productivity. 2016; 57(1):59-67.
3. Dasgupta MK, Sinha D. Impact of privatization of ports on relative efficiency of major ports of India. Foreign Trade Review. 2016; 51(3):225-247.
4. Ganai SG, Khan JA, Bhat SA. Dynamics of export competitiveness of India and China: a study of HS 6-digit manufacturing exports. Competitiveness Review. 2023; 33(5):889-938. https://doi.org/10.1108/CR-10-2021-0139
5. Janardhana Rao A, Bangar Raju T, Roy H, Bhanu Prakash N. Benchmarking and Probing its Applicability: Major Seaports of India. SCMS Journal of Indian Management. 2017; 14(4):35-53.
6. Ministry of Ports, Shipping and water ways.
7. Rajasekar T, Deo M. The Efficiency of Seaports in India: An Empirical Analysis. IUP Journal of Operations Management. 2018; 17(4):27-46.
8. Sarkar BD, Shankar R, Kar AK. Port logistic issues and challenges in the Industry 4.0 era for emerging economies: an India perspective, Benchmarking: An International Journal. 2023; 30(1):50-74
9. Sarkar BD, Shankar R, Kar AK. Port logistic issues and challenges in the Industry 4.0 era for emerging economies: an India perspective, Benchmarking: An International Journal. 2023; 30(1):50-74. https://doi.org/10.1108/BIJ-08-2021-0499
10. Sheelam H, Goud MM. Indicators for the Strategic Development of Indian Ports: A Literature-Based Analysis. South Asian Journal of Management. 2023; 30(2):88-109.
11. Shobayo P, van Hassel E. Container barge congestion and handling in large seaports: a theoretical agent-based modeling approach. Journal of Shipping & Trade, 2019, 4(1). N.PAG. https://doi.org/10.1186/s41072-019-0044-7
12. Tagawa H, Kawasaki T, Hanaoka S. Conditions influencing the choice between direct shipment and transshipment in maritime shipping network. Journal of Shipping & Trade. 2021; 6(1):1-15. https://doi.org/10.1186/s41072-021-00085-3
13. Wu L, Adulyasak Y, Cordeau JF, Wang S. Vessel Service Planning in Seaports. Operations Research. 2022; 70(4):2032–2053. https://doi.org/10.1287/opre.2021.2228