International Journal of Financial Management (IJFM)
ISSN(P): 2319-491X; ISSN(E): 2319-4928
Vol. 9, Issue 5, Jul–Dec 2020; 1–8

International Academy of Science, Engineering and Technology
Connecting Researchers; Nurturing Innovations

PRESENT SCENARIO OF SHIPBUILDING INDUSTRY IN INDIA

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ABSTRACT

India is the fifth largest economy in the world in terms of GDP and soon, it is expected to overtake Germany to reach the fourth position. In terms of Gross Value Added (GVA) at current prices, India's service sector is the largest segment and accounts to nearly 54%.

The main objective of this research paper is to study the present challenges and issues in Indian shipyards. It also aims to evaluate the schemes and new financial assistance policy introduced by the present Indian Government at the policy level and study the challenges encumbering the development of shipyard in terms of infrastructure and advanced technologies required to increase the volume of capacity in terms of Dead weight Tonnage (DWT) and the market share of India in the world fleet

KEYWORDS: *Dead Weight Tonnage, Shipbuilding, Shipyard*

Article History

Received: *22 Jul 2020* **|** ***Revised:*** *25 Jul 2020* **|** ***Accepted:*** *03 Aug 2020*

INTRODUCTION

India is the Sixteenth largest Maritime Country in the world, with a coastline of about 7,517 km. According to the Ministry of Shipping, around 95% of India's trading by volume and 70% by value is done through maritime with 12 major and 200 notified minor and intermediate ports.

The growth in international trade and the removal of trade barriers has made the developing countries to concentrate more on the improvement of their infrastructure, like roads, airports and seaports, which play a vital role in the development of the economy. All these things, together with product storage and the capacity to move large shipments, have placed the shipping industry in a very advantageous position. Eventually, various other aspects of shipping had been developed over years such as Containerization, Multimodal transport services, advancement of marine engineering technology and so on. There have been numerous attempts by the Government along with other private and public sector firms to promote shipping in the country. In the subsequent years, there has been growth in developing countries at a varied level in order to improve their economy. Topping the list are most of the Asian countries.

VARIOUS COUNTRIES SUPPORT TOWARDS SHIPBUILDING

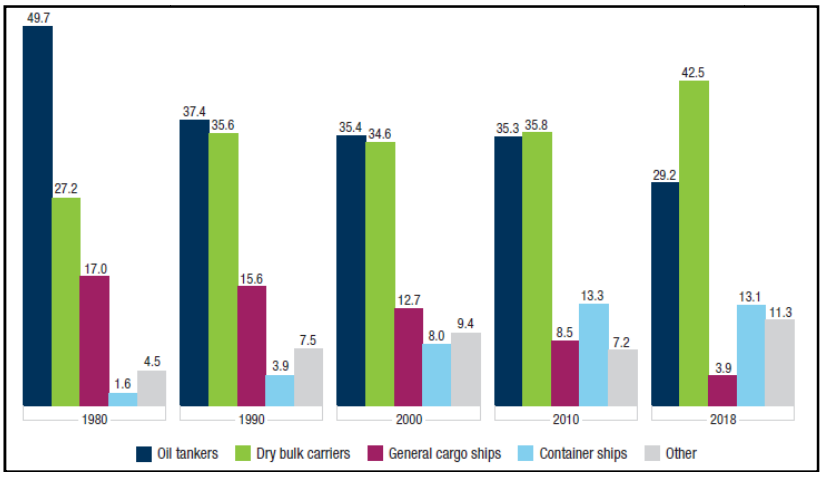
Factors considered towards promotion of shipbuilding are Government guarantee (loan), Repairs and Maintenance, Period of loan, Legal cost, Security & Interest makeup.

Country	United Kingdom	Japan	South Korea	China	United States of America
SUCES Member	Yes	Yes	Yes	Yes	Yes
Government Guarantee (loan)	Domestic & International ships up to 80%	Domestic & International ships up to 80%	Domestic & International ships up to 70-80%	Domestic & International ships up to 80%	Domestic & International ships up to 75 – 87.5%
Repairs & Maintenance	No	NA	Yes	Yes	Yes
Loan Period	8.5 years	------	12 years	15 years	25 years
Interest makeup	Yes	Yes	No	No	Yes
Legal Cost	Initial Offer	Yes	Yes	Yes	Yes
Security	Yes	Yes	Yes	Yes	Yes

Figure 1: Selected Countries Support Towards Shipbuilding Financing.

WORLD FLEET BY VESSEL TYPES

The Figure-4 below shows the percentage share of world fleet in dead-weight tonnage by vessel type for a period of almost four decades i.e., from 1980 to 2018.



Source: Review of Maritime Transport 2018, UNCTAD

Figure 2: World Fleet by Vessel Types.

We can see that in 1980 the percentage share in dead-weight tonnage of Oil tankers was the maximum at 49.7%, in the subsequent decades the percentage share has sharply decreased to 29.2% in 2018. The reason for this decline can be traced back to increase in the usage of sources of energy other than crude, like renewable sources of energy.

The percentage share in dead-weight tonnage of Dry bulk carriers have increased from 27.2% in 1980 to hovering around 35% continuously for three decades i.e., from 1990 to 2010. In 2018 it has grown to 42.5%. This signifies that the dry cargo is the maximum traded commodity by volume today.

The percentage share in dead-weight tonnage of general cargo ships has declined rapidly from 17% in 1980 to 15.6% in 1990 and further declined to 12.7% in 2000 and to 8.5% in 2010. In 2018, it is a meagre 3.9%. The reason for its decline is credited to the rise in containerization. Almost 70% of the world seaborne trade consists of containerized cargo.

The percentage share in dead-weight tonnage of Container ships has grown consistently from 1.6% in 1980 to 3.9% in 1990 to 8% in 2000 to 13.3% in 2010 and it is more than 13% in 2018. The unitization of cargo and growth of container handling equipment facilitated the growth of container trade.

The rest of the dead-weight tonnage of the world fleet consists of various other types of specialized cargo carriers, which comprise of a miniscule percentage of the world fleet. These various types of vessels contribute around 11% of the world dead-weight tonnage. These specialized vessels can be categorized as LPG/LNG carriers, chemical tankers, reefer vessels, project cargo carriers etc.

INDIAN PLAYERS IN THE SHIPBUILDING INDUSTRY

The Indian Shipbuilding and Ship Repair industry consists of firms that design, build and repair Commercial ships, naval ships, and offshore platforms for the Shipping Industry, Fishing Industry, Naval Defence and oil & Gas Industry. At present, there are 28 major shipyards in India, which include 6 shipyards owned by the Central Government and 2 shipyards owned by State Governments and remaining come under the private sector.

S No.	Name of the Shipyard	Ownership
1	Cochin Shipyard Ltd	Ministry of Shipping, India
2	Hooghly Cochin Shipyard Limited	
3	Mazagaon Docks Ltd	Ministry of Defence, India
4	Goa Shipyard Ltd	
5	Garden Reach Shipbuilders and Engineers Ltd	
6	Hindustan Shipyard Ltd	
7	Alcock Ashdown Gujarat Ltd	Gujarat Government
8	Shalimar Works (1980) Ltd	West Bengal Government
9	Bharati Shipyard Ltd	Public Listed
10	Reliance Naval and Engineering Ltd	
11	A. C. Roy & Co., Kolkata	Private Unlisted Companies
12	Bengal Shipyard Ltd., Kolkata	
13	Chowgule& Co. Ltd., Goa	
14	Corporated Shipyard Pvt. Ltd., Kolkata	
15	Dempo Shipbuilding & Engineering Pvt. Ltd., Goa	
16	L & T Shipbuilding Ltd., Chennai	
17	Modest Infrastructure Ltd., Mumbai	
18	MandoviDrydocks Ltd., Goa	
19	Marine Frontiers Pvt. Ltd., Mumbai	
20	N.N. Shipbuilders & Engineers Pvt. Ltd., Thane	
21	Sembmarine Kakinada Ltd., Kakinada	
22	Shoft Shipyard Pvt. Ltd., Thane	
23	Tebma Shipyards Ltd., Chennai	
24	TimbloDrydocks Pvt. Ltd., Goa	
25	Titagarh Marine Ltd., Kolkata	
26	Vijai Marine Shipyards, Goa	
27	Waterways Shipyard Pvt. Ltd., Goa	
28	West Coast Shipyard Ltd., Goa	

Figure 3: Indian Players in Shipbuilding Industry.

S. No	Name of the company	Country	Gross tonnage (GT)	No of Ships
1	Hyundai Heavy Industry	Ulsan, South Korea	93,893,700	1428
2	Daewoo Shipbuilding	Okpo, South Korea	68,284,087	834
3	Samsung Heavy Industry	Geoje, South Korea	58,082,349	785
4	Hyundai Samho	Samho, South Korea	28,414,515	372
5	Mitsubishi Heavy Industry	Nagasaki, Japan	19,506,548	315
6	Tsuneishi Ship Building	Numakuma, Japan	17,824,038	492
7	Oshima Shipbuilding	Oshima, Japan	16,983,004	539
8	Hyundai Mipo	Ulsan, South Korea	16,715,650	618
9	Imbabura Shipbuilding	Marugame, Japan	15,692,687	393
10	Shanghai Waigaoqiao	Shanghai, China	15,096,900	164

Figure 4: Top Shipbuilding Countries.

ORDER BOOK POSITION OF INDIAN SHIPYARDS

The Indian shipyards, in total, have the orders for 231 vessels, out of which 69 are with public sector and 162 with private sector shipyards.

Yard Types	Vessels	Tankers	Dry Cargo	Bulk Cargo	Passengers	Others	Total
Public Sector	No.	5	0	1	7	56	69
	DWT	3,280	0	53,000	10,320	82,030	148,630
Private Sector	No.	3	16	23	4	116	162
	DWT	3,700	58,580	644,000	2,530	144,020	852,830
Total	No.	8	16	24	11	172	231
	DWT	6,980	58,580	697,000	12,850	226,050	1,001,460

Figure 5: Order Book Position of Indian Shipyards.

The world order book in 2018 is 3646 vessels. If we compare the Indian order book with the world, we find that India holds 6.3%market share in the world in number of vessels. World order book in terms of dead weight tonnage is 220,842,855 dwt and that of India's is 1,001,460

Dwt, so in terms of dwt India has a market share of 0.5%. The above data of Indian order book considered revising the orders received by the shipyards from the defence establishments and also the commercial shipbuilding orders. Thus Indian shipyards are starving for shipbuilding orders.

GOVERNMENT POLICIES FOR SHIPBUILDING IN INDIA

Government of India has supported Indian shipbuilding industry since 1971 through various policy measures such as pricing policy and shipbuilding subsidy policy for commercial vessels. The policies were modified periodically and in 2002 the government extended the subsidy scheme to the private shipyards also. Such subsidy schemes were applicable for both the domestic orders and export orders. The Government of India has introduced 4000 Crore Rupees Shipbuilding Financial Assistance Policy for 10 years to encourage domestic shipbuilding. Financial assistance will be granted to Indian

shipyards for shipbuilding contracts signed from April 1, 2016 to March 31, 2026. Financial Assistance equal to 20% of the lower of 'Contract Price' or the 'Fair Price' of each vessel built by them during this period will be provided after delivery of vessel. This rate 20% will be reduced by 3% every three years if not completed in stipulated time. The amount of financial assistance will depend on the applicable rate at the time of signing of contract. At the time of release of financial assistance, if the actual payment received for a vessel by the shipyard from the ship - owner is lower than the contract price; such payment shall replace the contract price for the computation of financial assistance and thus promoting Make in India concept. Few vessels are excluded from the policy like those made of wood, vessel up to 24 meters in length and vessels made for defence purposes or for use by Navy or Coast Guard.

Subsidy of 30% of the price of vessel was granted for ocean going vessels of 80 meters and above. The policy was in force for the contracts signed by the shipyards till august 14, 2007. The subsidy disbursed to shipyards from 2004-05 to 2017-18 is presented in the figures.

Year	Public Shipyards	Private Shipyards	Total
2004-05	15	Nil	15
2005-06	101.53	Nil	101.53
2006-07	110.52	Nil	110.52
2007-08	169.96	19.28	189.24
2008-09	131.71	Nil	131.71
2009-10	107.4	71.8	179.2
2010-11	70.91	128.19	199.1
2011-12	5.77	116.65	122.42
2012-13	Nil	220	220
2013-14	Nil	179	179
2014-15	Nil	Nil	Nil
2015-16	Nil	Nil	Nil
2016-17	Nil	Nil	Nil
2017-18	Nil	Nil	Nil

Figure 6: Total Subsidy (Crores) Disbursed to Public and Private Shipyards.

Year	Domestic Orders	Export Orders	Total
2004-05	Nil	15	15
2005-06	50.53	51	101.53
2006-07	40.52	70	110.52
2007-08	42.23	147.01	189.24
2008-09	22.8	108.91	131.71
2009-10	18.96	160.24	179.2
2010-11	Nil	199.1	199.1
2011-12	Nil	122.42	122.42
2012-13	Nil	220	220
2013-14	Nil	179	179
2014-15	Nil	Nil	Nil
2015-16	Nil	Nil	Nil
2016-17	Nil	Nil	Nil
2017-18	Nil	Nil	Nil

Figure 7: Total Subsidy (₹ in Crores) Disbursed for Domestic and Export Orders.

MAJOR INDIAN FLEET OWNERS

The Shipping Corporation of India (SCI) is a Government of India Public Sector Enterprise engaged in operating and managing shipping services for government purposes, including services to other clients. SCI has a fleet of 70 vessels, which is the maximum fleet strength in the country.

S No.	Name of the Company	No. of Vessels	Total GT	Total DWT
1	Shipping Corporation Of India	70	3,205,333	5,372,958
2	Ocean Sparkle Ltd.	63	29,881	13,307
3	Great Eastern Shipping Co. Ltd.	49	2,224,157	3,569,548
4	Reliance Industries Ltd.	26	16,835	12,325
5	Mercator Ltd.	22	681,595	1,083,678
6	Tag Offshore Ltd.	22	63,812	58,805
7	Adman. Of U.T. Of Lakshadweep	21	39,749	8,007
8	Samson Maritime Ltd.	20	29,653	20,808
9	Gujarat Maritime Board Ltd.	18	2,753	194
10	Polestar Maritime Ltd.	18	6,197	2,572
11	Dredging Corporation Of India Ltd.	17	84,918	60,372
12	Jindal Itf Ltd.	17	59,191	104,056
13	Oil & Natural Gas Corporation Ltd.	17	59,823	43,872
14	Great Ship (India) Ltd.	16	41,907	29,193
15	Kei-Ross Maritime Ltd.	16	6,408	4,555
16	Andaman & Nicobar Administration	15	70,993	28,061
17	Essar Shipping Ltd.	14	230,465	274,217
18	Great Offshore Ltd.	14	21,902	24,724
19	Seven Island Shipping Ltd	14	536,938	957,231
20	Visakhapatnam Port Trust	14	6,035	0
21	Hind Offshore	12	17,083	11,027
22	Kolkata Port Trust	12	16,329	11,742
23	Chennai Port Trust	11	6,989	0
24	Kandla Port Trust	11	1,973	663
25	Ambuja Cement	10	23,782	30,460
26	Apeejay Shipping Ltd.	10	360,352	586,448
27	Jaisu Shipping Co. Ltd.	10	18,652	8,758
28	Raj Shipping Agencies Ltd.	10	9,809	10,709
29	SethusamudramCorp.Td., Chennai	10	263	0
30	Shreyas Shipping & Logistics Ltd	10	196,332	252,447
31	Others	811	4,613,341	6,593,890
India Total		**1,400**	**12,683,450**	**19,174,627**
World Total		**94,758**	**1,301,320,000**	**1,925,060,000**
India as a % of World		**1.48**	**0.97**	**1.00**

Figure 8: Twenty Tonnage of Indian Fleet by Company as on Dec 31, 2018.

CHALLENGES TO INDIAN SHIPBUILDING INDUSTRY

India requires a vibrant shipbuilding industry because there is sufficient demand for this maritime asset given by the fact that more than 90% of Indian seaborne trade is taking place with the foreign fleets, owned by foreign companies. A huge sum of money in foreign exchange is paid in freight charges to foreign shipping service providers. Also, there is a lucrative export market. Even though it is highly competitive and dominated by the far stronger and efficient shipyards of China, Japan and South Korea, Indian shipyards still can manage to make inroads into this market. Factors that obstruct the growth of Ship Industry are following, as observed.

Tax Burden

GST of 5% is applicable on the materials sourced domestically to be utilized for shipbuilding, sale of ships, capital goods for shipbuilding and replacement of yard facilities. IGST of 5% and basic customs duty of 2.5% are applicable for the imported materials to be utilized. Ship breaking service is likely to incur GST of 18%, which is generally paid by the customer and in addition to this, corporate tax to be paid by the shipbuilding companies. These statutory tax burdens put a financial stress on the shipyards which are already starved of funds.

Cost of Bank Guarantee

The ship owners seek bank guarantees from the shipyards, like performance guarantee for timely delivery of the vessel, refund guarantee for advance payment and post construction guarantee for coverage against defects. In India, the financial institutions do not focus on the shipbuilding sector and the government fails to provide support to the shipyards for extending these guarantees.

Cost of Working Capital

The shipbuilding activity is highly capital intensive; the shipyards require working capital of around 35 to 40% of the cost of the ship during the period in which the ship is built. The interest rates charged by the banks in the country towards working capital loans averages around 10.5 % and are comparatively higher in comparison to China, Japan and South Korea.

Modernization and Up gradation of technology, Shipyard layout, Project Delay, Debt Problems, Funding Gap from the Government, Lack of Educational Institutions and Research & Development Centers are also some factors which restrain the growth of shipbuilding in India.

CONCLUSIONS

The analysis of various facts of Indian shipbuilding Industry clearly shows that India needs to look at multiple interventions, including in the areas of Regulatory framework, Investment Policies, R&D Skills, Financing Process and Collaboration with Modern Technology. Also it brings to focus the importance of India's shipbuilding industry which has the capacity and expertise but is functioning below its capacity. The majority of shipyards in the country, barring a few like Mazagon Dock Ltd, Cochin Shipyard Ltd, Garden Reach Ship builders & Engineers Ltd. etc., are under huge debt burden and are not earning any profits. But Scalability of building ships, Government Regulatory framework and Productivity optimization on R&D and in technology can enhance the capacity of shipbuilding in India.

SOURCE OF REFERENCES

1. *A. Prem Anandh & MSP Raju. (July 2018). An Analysis of Indian Shipbuilding and Repair Industry. International Journal of Civil Engineering and Technology, 9, 715-723.*
2. *Alex Gray. (2018). Recent Market Developments in the Shipbuilding and Shipping Industries. London: IHS Markit.*
3. *Christian Steidl, Laurent Daniel and Cenk Yildiran. (2018). Shipbuilding Market Developments Q2 2018. Paris: Organization for Economic Cooperation and Development.*
4. *Dr. Paul Stott. (2018). Towards a Better Understanding of the Commercial Shipbuilding Market. Paris: Newcastle University.*

5. *Gabriel Collins and Lieutenant Commander Michael C. Grubb, U.S. Navy. (2008). A Comprehensive Survey of China's Dynamic Shipbuilding Industry. Rhode Island: China Maritime Studies Institute, U.S. Naval War College.*
6. *Hirotaka Mori. (2016). Future Technology and Finance on Maritime Sector in Japan and Norway. Tokyo: Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT).*
7. *Indian Shipping Statistics. (2018). New Delhi: GOI, Ministry of Shipping, Transport Research Wing.*
8. *Junhui Li. (2011). An Econometric Analysis of Shipbuilding Market in China. Rotterdam: Erasmus University of Rotterdam.*
9. *Shipbuilding and Shipping Forecast to 2030. (2018). London: Clarksons Research Services Ltd.*
10. *Shipbuilding Market Review 2019. (2019). Paris: BRS Group.*
11. *Shipping Indexes Signal Global Economic Trends. (2010). Dallas: Globalization and Monetary Policy Institute 2010 Annual Report.*
12. *Shipping Market Review. (Nov 2018). Denmark: Danish Ship Finance.*
13. *Shipping Statistics and Market Review. (2017). Bremen: ISL Institute of Shipping Economics and Logistics, 61, 9/10.*
14. *Shipbuilding Statistics. (March 2019). The Shipbuilders' Association of Japan.*
15. *Statistics of India's Shipbuilding and Ship Repairing Industry. (2017-18). New Delhi: GOI, Ministry of Shipping, Transport Research Wing.*
16. *Shipping Industry – Sectoral Paper – GST Perspective. (2018). Kolkata: Ernst & Young LLP.*
17. *2018 Handbook of Statistics. (2018). Geneva: United Nations Conference on Trade and Development.*

WEBSITES

18. *https://worldmaritimenews.com/archives/244997/bimco-global-economic-growth-beneficial-for-shipping/*
19. *https://voxeu.org/article/chinas-hidden-shipbuilding-subsidies*
20. *https://www.hellenicshippingnews.com/hyundai-heavy-signs-formal-deal-to-take-over-daewoo-shipbuilding/*
21. *https://www.caixinglobal.com/2018-10-22/shipbuilding-consolidation-steams-ahead-with-new-acquisition-101337748.html*
22. *https://www.maritime-executive.com/article/eu-joins-complaint-over-s-korean-shipbuilding-subsidies*
23. *https://www.ft.com/content/b678e8b0-ee22-11e8-89c8-d36339d835c0*
24. *https://www.globalsecurity.org/military/world/rok/industry-shipbuilding.htm*
25. *https://www.wsj.com/articles/koreas-mega-merger-of-shipyards-set-to-dominate-global-shipbuilding-11549475888*