



SHIPBUILDING INDUSTRY IN BANGLADESH: OPPORTUNITIES AND CHALLENGES

Editor

Mr. Arifur Rahman, FCCA, FCA, CSAA
Chief Executive Officer

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Shipbuilding Industry in Bangladesh: Opportunities and Challenges

*Nabihatul Afrooz**

Abstract

The shipbuilding industry in Bangladesh has experienced significant growth and evolution, driven by its promising economic potential and increase in its contribution to meeting the international demand for vessels. In 2023, the global shipbuilding market was valued at approximately USD 145.667 billion, with projections indicating a substantial increase to USD 195 billion by 2030. This industry is currently dominated by Asia-Pacific nations, notably China, with Bangladesh emerging as a notable player due to its unique riverine geography and maritime capabilities. This paper offers a comprehensive examination of the shipbuilding sector in Bangladesh, encompassing its historical development, current status, and prospects. The industry has undergone a notable transformation from traditional wooden vessel construction to steel and iron vessel production, catering to domestic and international markets. Despite challenges such as high land development costs, formidable competition from other Asian shipbuilding giants, technological limitations, reliance on imported materials, and inadequate funding schemes, the sector continues demonstrating substantial growth potential. To capitalize on this potential and overcome prevailing challenges, this paper presents a set of recommendations. These include fostering local sourcing and technological advancements, providing favorable funding opportunities, investing in human resource development and international collaborations, and enhancing government incentives and support mechanisms. By implementing these strategies, the shipbuilding industry in Bangladesh can further solidify its position, contributing significantly to the nation's economic development and prosperity on the global stage.



**The author is Senior Research Associate, ECRL*

Introduction

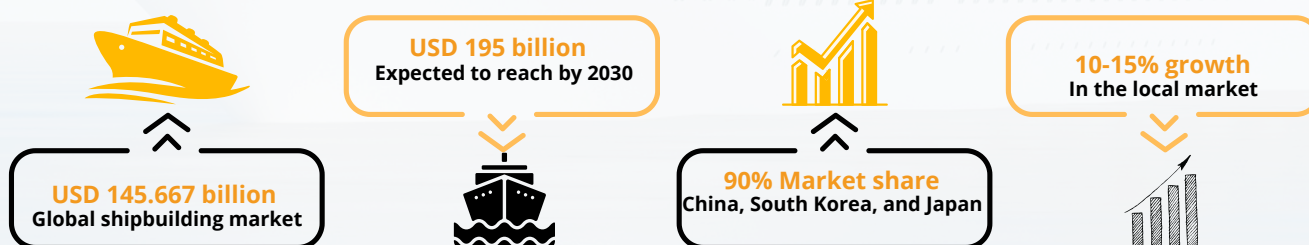
The global shipbuilding market is estimated to be USD 145.667 billion in 2023 (Mordor Intelligence, 2023) and is expected to reach USD 195 billion by 2030 (Rayhan, 2023). This industry is dominated by Asia-Pacific countries, followed by Europe, North America, Latin America, the Middle East, and Africa. The major share among these countries is led by China which has about 41% of the global shipbuilding market share and is looking forward to growing more (Rahman, 2022). China, South Korea, and Japan comprise 90% of the total market share in the world. The shipbuilding industry in Bangladesh has a rich history and has evolved significantly over the years. Bangladesh is primarily an agriculture-based economy with riverine landscapes, and this has emerged as a promising economic sector for shipbuilding.

The shipbuilding industry in Bangladesh has been majorly supplying the local market, while exports have been growing smoothly in the past decade by holding a position in the global market for small and medium sea vessels. The industry has grown in recent years as Bangladesh commenced exporting domestically manufactured ships to many nations across Europe, Africa, and Asia. The local market experienced 10-15% growth, with 5-6% growth in international market participation (Mahmud, 2022). Among the ship types exported by Bangladesh are cargo vessels, multipurpose container vessels, tug boats, landing craft, bulk carriers, patrol vessels, catamaran water taxis, ferries, oily waste collection vessels, and passenger vessels (BIDA-Shipbuilding). Moreover, the shipbuilding sector in Bangladesh offers growth opportunities. Focusing on local sourcing, technological advancements, favorable funding opportunities, human resource development, and international collaboration can enable the industry to thrive and contribute significantly to the nation's economic prosperity. This overview sets the stage for a comprehensive exploration of Bangladesh's shipbuilding industry, including its achievements, current status, challenges, and promising prospects.

Historical Overview

A riverine and agriculture-based South Asian country like Bangladesh has been mostly involved in local shipbuilding, focusing on wooden-made local vessels in the ancient period. Before independence, the Chattogram region had a long history of building and repairing ships dating back to the Colonial era (Shipbuilding Industry - Banglapedia). Initially, after the liberation of Bangladesh, the shipbuilding industry was operating on a small scale. The port city of Bangladesh, Chattogram, has been involved in shipbuilding. During the 1990s, the country underwent modernization with the rising economic development and industrialization, and this sector also started expanding. The industry experienced a significant transformation by switching from wooden vessels to steel and iron, such as cargo ships, fishing trawlers, and passenger ferries. The government also focused on the development of this sector and recognized the industry's potential, providing incentives to support the growth. Then, with the rising demand for vessels, shipbuilding moved from the higher labor cost entailing European countries to Asian countries with lower labor costs like Japan, Korea, etc. India, Indonesia, Bangladesh, and other Asian countries are also contributing to the international market with a cheap labor supply, and Asian shipbuilders have moved from constructing small ocean-going vessels to large vessels.

Bangladesh has also started to produce and export quality vessels. In 2000, small boats from Bangladesh were exported to Mozambique and a few other countries and the fundamental moment that transformed Bangladesh into a global player in shipbuilding occurred in 2008 when it received substantial orders from European markets. Significant orders came from German and Danish buyers for multipurpose cargo ships (Rahman, 2022). Bangladesh is now moving from building small ships to medium to large vessels with the increased work orders from different countries.

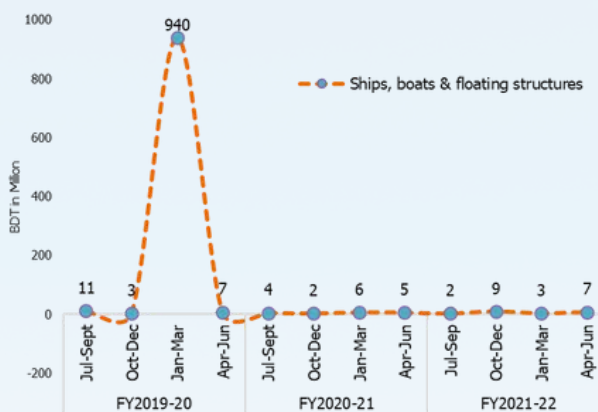


Current Status

There are more than 130 shipbuilders and over 300 shipyards of varying sizes, located mainly on the river banks of Dhaka, Chattogram, Narayanganj, Barisal, and Khulna. The current shipyard has around 10,000 deadweight tonnage (DWT) capacity, which can be increased to 50,000 DWT after the expansion of the shipyards (N.M. Golam Zakaria et al., 2023). Among the shipyards, only 10 maintain export standards, of which 5 make ships for foreign buyers while the other five await foreign orders. In Bangladesh, water vessel has significant demand as almost 90% of fuels, 70% of cargo, and 35% of passengers are moved by waterways (BIDA-Shipbuilding). While the domestic market is experiencing a growth rate of 10-15%, the export market has been expanding at 5-6%. Due to consistent economic and trade advancements and the initiation of infrastructure projects, the quantity of domestically registered vessels has risen at an average annual growth rate of 5.39% (Mahmud, 2022). Additionally, the availability of low-cost skilled labor reduced costs, attracting international buyers. This labor-intensive sector contributes to the employment generation of the economy by engaging over 150,000 skilled and semi-skilled workers in various capacities (Sagar, 2022).

The shipbuilding industry contributes an annual sum of BDT 1,500 million to the country, which is anticipated to reach the BDT 10,000 million milestone by 2041 (Mahmud, 2022). Furthermore, in 2022, Bangladesh delivered its largest container ship, a 6100-tonne load capacity, to the UK, which was locally built, earning foreign exchange of BDT 10 million. However, the export of receipts for ships, boats, and structures from Bangladesh Bank data displayed a decreasing trend for the last four years. According to industry insiders, the ongoing projects' orders were halted with a decrease in new orders after the pandemic in 2021 due to payment failures. The payment in the Jan-Mar third quarter of FY2020 displayed an influx of payment receipts as the orders from previous payments were received. However, the situation improved the following year when the sector started receiving export orders, some of which will be delivered in 2024 (Ahmed, 2023). Moreover, in 2022, three companies received orders worth BDT 500 million to build around two dozen vessels, namely Khulna Shipyard, Karnafuly Shipyard, and Ananda Shipyard, which will significantly boost this sector (Ahmed, 2023). The vessels these companies are constructing include mother vessels, cruise ships, tug boats, floating cranes, and dredgers.

Figure 1. Ships, boats & floating structures (BDT in Million)



Source: Bangladesh Bank

Market Trends and Demand Dynamics

Some of the market trends and demand dynamics of this industry are:

Low Labor Cost

The worldwide market for small and medium-sized maritime vessels is expanding, and Bangladesh enjoys a competitive edge in this sector owing to its cost-effective labor force, skilled workforce, and supportive government policies (BIDA-Shipbuilding).

130 shipbuilders and over 300 shipyards

Shipyard has around 10,000 deadweight tonnage (DWT) capacity

Can be increased to 50,000 DWT after the expansion of the shipyards

Registered vessels has risen at an average annual growth rate of 5.39%



Increasing Demand in Local Market

Bangladesh is a riverine country with vast rivers and inland waterways. It is regarded as the cheapest and most convenient mode of transport. Thus, there is a significant demand for locally made ships as the cost is low if vessels are sourced locally.

Availability of Private Shipyards

The shipbuilding sector in Bangladesh is primarily led by private shipyards, which have effectively exported various types of ships to nations across Europe, Africa, and Asia. Among the prominent shipbuilders in the industry are Western Marine Shipyard, Ananda Shipyard and Slipways, Meghna Shipbuilders and Dockyard, Khan Brothers Shipbuilding, and others (Ahamed, 2014).

Government Support and Incentives

The government of Bangladesh is providing new policies and incentives for local manufacturers and exporters. The Shipbuilding Policy 2020 provides support and incentives that aim to develop backward linkage and ancillary sectors of the shipbuilding industry (BIDA-Shipbuilding). Moreover, the refinance scheme by Bangladesh Bank includes BDT 20.00 billion out of its fund named "Refinance Scheme for Shipbuilding Industry."

Government Policy and Support

This sector has gained potential over the years, and since 2008, shipbuilding has started receiving export earnings. The government is also providing incentives and implementing policies to support investments in this sector. Relevant incentives and policies are mentioned below (Shipbuilding Industry-BIDA) :

- National Industry Policy 2016: The National Industry Policy 2016 aims to improve the socioeconomic condition of Bangladesh by increasing industrialization, employment, and GDP growth.
- The Inland Shipping Ordinance of 1976 defines the categories of vessels operating in the country's domestic inland waters, with corresponding national standards outlined in Bangladesh's Domestic Vessel Code.
- The Merchant Shipping Ordinance of 1983 defines all Bangladeshi vessels, excluding those navigating inland waters, such as ocean-going vessels. These ocean-going vessels must attain certification based on internationally recognized "class" standards through accredited bodies.
- Adjusted tax rates for export income include a 5% rate for publicly listed companies and a 10% rate for non-listed companies as per SRO-132-AIN/2013. A 5% import duty is also applied to raw materials utilized in shipbuilding within the local market. Moreover, a 10% export subsidy is available for ship exports, as outlined in FE Circular-31 from August 2017.

- Refinance Scheme for Shipbuilding Industry from Bangladesh Bank is a refinance scheme of BDT 20.00 billion. Islamic banks may also provide funds under this scheme by following Shariah-based investment rules and may avail of the refinance facility from Bangladesh Bank (BRPD circular No. 09, dated 26 May 2022) (Bangladesh Bank).

Opportunities in the Shipbuilding Sector

Growing Domestic Market and Shipyard Expansion

The local market is producing vessels at a rate of 5.39% with a market growth rate of 10-15% (Mahmud, 2022). The country, having experience from the ancient era and more than 300 shipyards, can produce around 50,000 DWT by 2041 with shipyard expansion (Mahmud, 2022).

International Recognition

Securing European buyers' orders for shipbuilding allowed gaining international recognition since 2008. Bangladesh has been exporting ships to countries like Germany, Denmark, Finland, Norway, India, Pakistan, Kenya, Mozambique, Tanzania, and the Maldives (Mahmud, 2022).

Economic Labor Supply

Bangladesh has been getting orders from different Western countries for shipbuilding due to its labor cost compared to them. Moreover, the availability of skilled engineers and workers also plays a positive role in getting orders for small to medium vessels.

Deep Sea Port

The ongoing mega projects Payra Deep Sea Port and Matarbari Sea Port will benefit shipbuilding companies. It will also be able to provide support services and facilities for shipbuilding industries (Preparatory Survey on Matarbari Port Development Project).

War Ship Construction

Under the supervision of the Bangladesh Navy, four warships are being constructed in the Khulna Shipyard. The ships are being built locally of international quality and are cost-effective for transporting war goods (Rita, 2023).

Favorable Geographical Location

Bangladesh has around 800 rivers, and shipbuilding industries are situated in the coastal belt and banks of the rivers. Thus, it is easier for the local vessel market to be accessed.

Challenges Faced by the Shipbuilding Industry

The shipbuilding industry has challenges that obstruct its growth, affecting its competitiveness.

High Cost of Developing Shipbuilding Land

Despite Bangladesh's riverine nature, establishing shipbuilding yards and ensuring their efficient operation and maintenance entails substantial financial outlays.

Stiff Competition

Asian countries like China, Japan, South Korea, India, and Vietnam have low production costs, advanced technology, and economies of scale, which raises stiff competition for Bangladesh.

Lack of Technology and Infrastructure

Bangladesh has cheap labor, but the technology and infrastructure are still not upgraded, which increases the cost of production and delays delivery time compared to other Asian countries.

Import of Raw Materials

Bangladesh has to depend on imports for raw materials and machinery. With the increase in costs due to international price fluctuation from the dollar crisis, the cost of procurement increases.

Lack of Funding Scheme

The shipbuilding industry requires specialized loans or funding schemes from financial institutions, which is insufficient to support this sector fully. The shipbuilding industry in Bangladesh needs access to extended-term, low-interest capital loans to sustain its operations and facilitate growth.

Recommendation

Promoting Local Sourcing and Technological Advancements

To reduce the cost of ship manufacturing, there should be a strategic focus on developing local sources of raw materials, equipment, and technology. This can be achieved through public-private partnerships, incentivizing research and development in shipbuilding-related industries, and fostering collaboration between shipyards and local suppliers. By embracing innovative practices and technology, shipyards can enhance efficiency and productivity, making them more competitive globally.



Favorable Funding Opportunity

This industry has the potential to grow due to the demand in the local and international markets. The global market is expected to grow by approximately USD 195 billion by 2030, subsequently positively impacting Bangladesh with significant growth potential. However, the availability of favorable, lenient-term loans is essential to capitalize on this opportunity. Enhancing funding support from banks and financial institutions can be achieved by providing shipbuilders with reduced interest rates, extended repayment periods, and simplified access to credit.

Human Resource Development and International Collaboration

To enhance the industry's human resources, investment in training and education is required. The focus should be to increase the quality and quantity of training facilities, update curricula to align with industry needs and ensure experienced instructors. Moreover, international collaboration will provide access to global best practices and expose the local workforce to diverse perspectives and skill sets, ultimately increasing the industry's competitiveness and capacity.

Government Incentives and Support

Implementing policies to support this sector by the government could help achieve the targeted growth of USD 4 billion by 2026 for this sector. Rectifying the deficiencies within the regulatory framework, taxation system, and incentives available to shipbuilders could change the scenario significantly.

Conclusion

The shipbuilding industry in Bangladesh embodies a dynamic sector with a rich historical evolution and a promising future trajectory. As the global shipbuilding market continues to expand, with substantial growth anticipated in the coming years, Bangladesh stands poised to impact this industry significantly. This analysis has elucidated Bangladesh's pivotal role in supplying local and international markets with diverse vessels, thus contributing to the nation's economic growth and job creation. However, the industry faces formidable challenges, including high land development costs, intense competition from established Asian shipbuilding giants, technological constraints, reliance on imported raw materials, and a deficiency in specialized funding schemes. Nevertheless, the potential for growth and development remains substantial. The recommendations outlined in this study, which encompass promoting local sourcing and technological advancements, facilitating favorable funding opportunities, investing in human resource development and international collaborations, and improving government support mechanisms, offer a comprehensive framework to address these challenges and unleash the industry's full potential.

With concerted efforts, strategic policies, and collaborative initiatives, Bangladesh's shipbuilding industry can weather these challenges and thrive, bolstering the nation's economic prosperity and global standing. By embracing innovation, enhancing efficiency, and fostering a supportive environment, Bangladesh can position itself as a formidable contender in the worldwide shipbuilding arena, capitalizing on the opportunities presented by this thriving sector.

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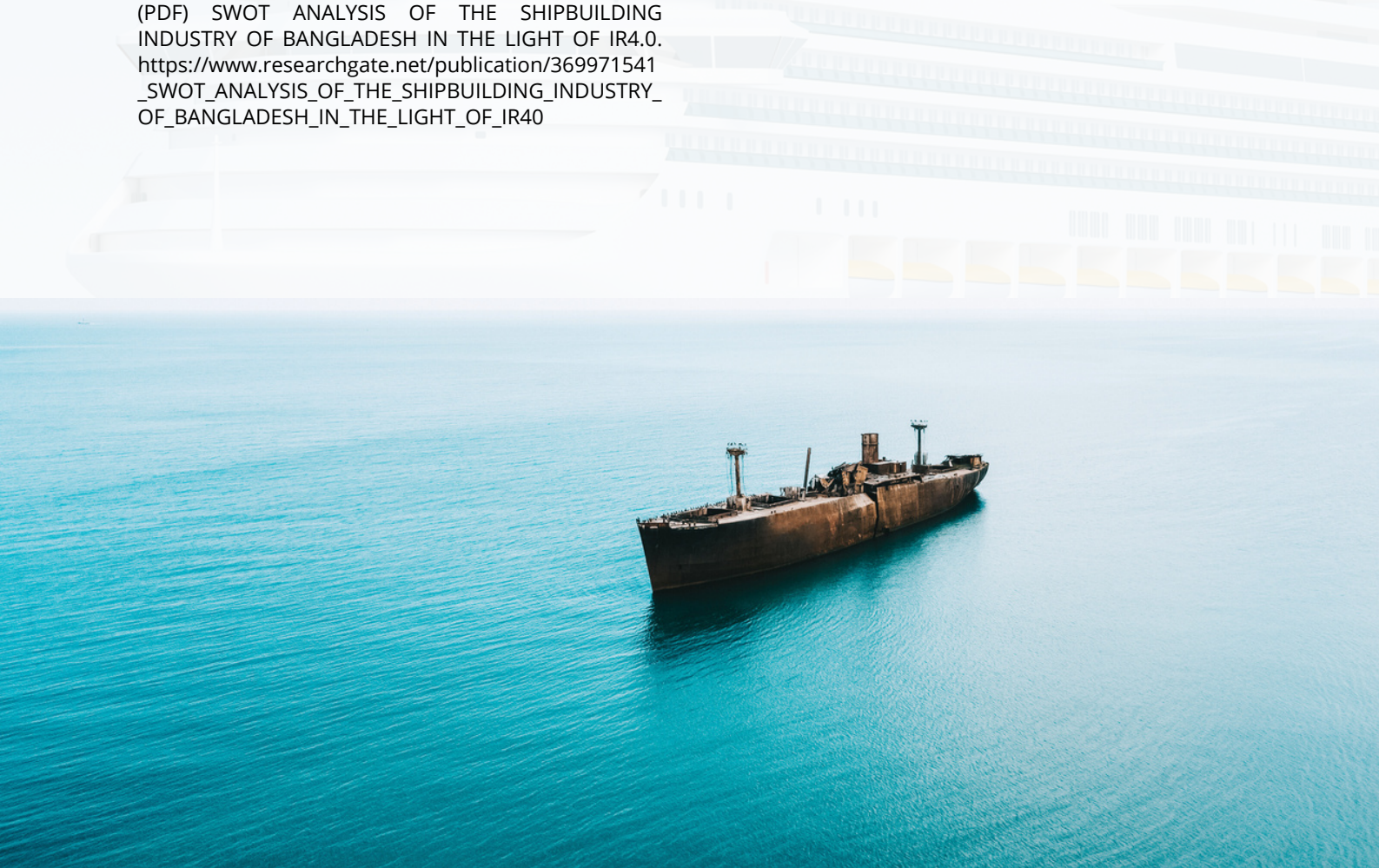
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Dhaka Office

Shams Rangs, House 104, Park Road Level-A1, A2 & A5 Baridhara, Dhaka-1212
Tel: +880 2222260911,
+880 2222260897
Fax: +880 2222260828
Email: info@emergingrating.com

Chattogram Office

Al Madina Tower, 6th Floor 88-89, Agrabad C/A, Chittagong
Tel: +880 1833 330059,
+880 1833 330061

Bogura Office

MA Complex, 3rd Floor, East Side. Tin Matha Railgate. Bogra- 5800

Khulna Office

Mollick Shopping Complex 99 Khan -a- Sabur Road, Khulna-9100
Tel: +880 1833 330060

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