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A Study on Global Shipbuilding Growth, Trend and Future Forecast

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Abstract

This paper aims at briefly analyzing the global commercial shipbuilding particularly its growth, trend and future forecast. At first inherent characteristics of the global shipbuilding industries have been discussed. On the basis of the secondary data of shipbuilding market segment, order book, countries share etc, shipbuilding growth has been analyzed. It is revealed that shipbuilding industry has vast experiences in surviving during peaks and slumps of economy but due to its nature of being a highly capital intensive industry, strong government support and political stability is prerequisite to tackle this situation. The key factors that drive the growth of the shipbuilding market have also been discussed.

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1. Introduction

Shipbuilding industry has become more global than local due to increasing globalization demand and easy to move raw materials, components, finished product across the world's waterways. Shipbuilding industry always dominates by maritime nations [1], like Britain, France, Germany, USA, Japan, Korea, and China. Shipbuilding has two main segments; named as commercial segment and naval segment. Presently commercial shipbuilding sectors are dominated by China, Japan, Korea, European Countries; whereas naval shipbuilding sector is dominated by USA, China, EC, Russia, Japan, India. Shipbuilding is considered to be one of the most strategic, oldest, most open and highly competitive markets in the world [2]. Although shipbuilding industry has vast experiences in surviving during peaks and slumps of economy, the current global economic and political crisis has hit shipbuilding industry more severely. As shipbuilding is a highly capital intensive industry so strong government support and political stability is prerequisite to survive this industry. The shipbuilding industry is accountable for the design and construction of oceangoing vessels all around the globe. The industry is involved in the construction and modification of ships and these operations are carried out in specialized facilities which are known as shipyards. The key factors driving the growth of the market are GDP, global seaborne trade, improved economic growth, rising urbanization, fossil fuel price and increase in global steel production. Some of the noteworthy trends and developments of this industry are green shipbuilding technology, automation in the industry, modular shipbuilding technique, advanced outfitting, ship launching airbag, LNG/LPG fueled engines and solar and wind powered ships. However, the expansion of shipbuilding industry can be affected by increased competition, environmental regulations, enhanced globalization and political and financial instability. This is an analytical research paper based on data collection during the first author's stay in China for constructing a naval vessel. On the basis of the data particularly for shipbuilding market segment, order book, coun-

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tries share, Govt. policies etc, shipbuilding growth has been analyzed. The experience of survival of the shipbuilding industry during peaks and slumps of world economy has been also observed. The key factors that drive the growth of the shipbuilding market have also been critically discussed. This paper also briefly analyze the global commercial shipbuilding; particularly growth, demand, share, trend and future forecast. That brief analysis will be helpful for all relevant shipbuilding stakeholders.

2. Global Shipbuilding Trend Analysis

Historically, shipbuilding industry has suffered from the absence of global control and role and there is a tendency towards over-investment due to the fact that shipyards offer a wide range of technologies, employ a significant number of workers and generate income as a shipbuilding market. On the other hand, it is very common that shipbuilding is always a state supported industry and enjoy government subsidies [3]. As a result shipbuilding is an attractive industry for developing countries. After World War II, Japan used shipbuilding in the 1950s and 1960s to rebuild its industrial structure; Again South Korea started to make shipbuilding a strategic industry in the 1970s, and China is now in the process of repeating these models with large state-supported investments in this industry [4]. Conversely, Croatia, Brazil, Philippine, Myanmar, Vietnam are privatizing its shipbuilding industry. Shipbuilding has gone into decline in high labour cost countries, due to the state subsidies have been removed and domestic industrial policies do not provide support. The British shipbuilding industry is a prime example of this with its industries suffering badly from the 1960s. In the early 1970s British yards still had the capacity to build all types and sizes of commercial vessels but today they have been reduced to a small number specializing in defence contracts, luxury yachts and repair work. Decline has also occurred in other European countries, although to some extent this has reduced by protective measures and industrial support policies. In the U.S.A, the Jones Act [5] which places restrictions on the ships that can be used for moving domestic cargoes) has meant that commercial shipbuilding has continued, albeit at a reduced rate, but such protection has failed to penalize shipbuilding inefficiencies. The consequence of this is that contract prices are far higher than those of any other country building oceangoing ships. China is an emerging shipbuilder that overtook South Korea during the time of global financial crisis in year 2008 to 2010. China is now firmly the world’s largest shipbuilder with around 45% of the world’s total orders, and its quality and technology have improved significantly. At present, Korea is the world’s second largest shipbuilding country with a global market share of about 29% in 2014 (Figure 1). South Korea leads in the production of large vessels such as Super tanker, cruise liner, LNG and LPG Carrier, drill ship, offshore structure (FSPO, FPO) and large container ship. South Korea’s shipyards are highly efficient, with the world’s largest shipyard in Ulsan operated by Hyundai Heavy Industries slipping a newly built, \$80 million [6] vessel into the water every four working days. South Korea’s ”big three” shipbuilders, Hyundai Heavy Industries, Samsung Heavy Industries and Daewoo Shipbuilding and Marine Engineering, dominate global shipbuilding, with STX Shipbuilding, Hyundai Samho Heavy Industries, Hanjin Heavy Industries and Sungdong Shipbuilding and Marine Engineering, also ranking among the top ten shipbuilders in the world. While evaluating the trend of global shipbuilding industry, it is found that, Japan had been the dominant ship building country from the 1960s through to the end of 1990s but gradually lost its competitive advantage to the emerging industry in South Korea which had the advantages of much cheaper wages, strong government backing and a cheaper currency. South Korean production overtook Japan’s in 2003 and Japanese market share has since fallen sharply (James, 2009). Philippines has placed fourth among shipbuilding nations around the world producing more than six million deadweight tonnes of ships built in 2012 [7]. Figure 1 shows the world shipbuilding market share by countries. Figure 2 is showing the

Rank	Country	Combined (GT)	Percentage
1	China	67,000,000	45%
2	South Korea	53,000,000	29%
3	Japan	28,000,000	18%
4	Philippines	6,000,000	1%
5	European Union	4,500,000	1%
6	Rest of the world	11,000,000	6%

Fig. 1: World Shipbuilding Market Share by Countries (2014)

global new-building order book since 2005. This graph indicates the cyclic movement of new orders with the time.

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