

The performance of iron and steel industries in India

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Abstract: *The paper examines the performance of Indian iron and steel industry in terms of primary indicators such as production and foreign trade. Steel and iron industries have been playing a vital role national industries growth story. It also studies growth in iron and steel export and import. Steel is a particular kind of iron that is approximately one per cent carbon, with the carbon content spread throughout the metal evenly. Steel is harder than iron and does not rust as easily. The steel industry is often considered to be an indicator of economic progress, because of the critical role played by steel in infrastructural and overall economic development, with the main demand creators being the automobile, construction, infrastructure and oil and gas Industries. That is why iron making was by far the bigger industry in America until the late nineteenth century.*

Keywords: export, import, production and growth rate.

1. Introduction

It can apparently be stated that iron and steel has little or no competition because of its ideal Combination of strength, rigidity and workability and the relatively high cost of alternative Materials. The steel industry has very strong forward and backward linkages in terms of material flow, income generation and employment creation; hence the economic prosperity and growth of an economy is very closely related to the quantity of steel consumed by it India's economic growth is contingent upon the growth of the Indian steel industry. Consumption of steel is taken to be an indicator of economic development. While steel continues to have a stronghold in traditional sectors such as construction, housing and ground transportation, special steels are increasingly used in engineering industries such as power generation, petrochemicals and fertilizers. India occupies a central position on the global steel map, with the establishment of new state-of-the-art steel mills, acquisition of global scale capacities by players, continuous modernization and up gradation of older plants, improving energy efficiency and backward integration into global raw material sources.

Objectives of the Study:

In this study, following objectives will be fulfilled to resolve the research problems:

- To analyse the performance of export and import of iron and steel industries in India.
- To analyse the performance of iron and steel industries in India.

Review of literature:

Review of literature plays an important role for a researcher in finalization and delimitation of a researcher problem. It point out the gaps in the literature which can be studied by a researcher in his study. It also introduces the researcher to alternate methods analysis which increases the scope and

limitations of new areas for the researcher. A brief description of some of selected studies is presented in this chapter. There are many articles and research papers on the topic "The performance of iron and steel industries in India" the researcher has read many research papers and books related to this topic. The studies reveal that insurance is very essential for economic growth. The survey finds that there are many factors that determine affecting the iron and steel industries. In present day insurance plays a very important role in providing security to the people.

Burange and Yamini (2008), focused on the performance of Indian iron and steel industry and competitiveness of the firms during the 1971-2008. The study is based on secondary data and the data has been taken from annual report of SAIL and commercial and industrial department. the study implemented for the presentation of data which include the use of tables and CAGR methods. In the study the researcher has used variable such as- production, export and import etc. and found that the production of iron is increased continuous after independent of India.

Global and domestic steel (2017), analyzed on the pressing issues and way ahead during the 1976-2015. The study is based on secondary data and the data has been taken from annual report of world steel association and ministry of steel. The study implemented for the presentation of data which include the use of table's growth rate and CAGR methods. In the study the researcher has used variable such as- production, export and import etc. and found that the production of iron and steel is increased continuous after independent of India and world developed economy.

Indian steel industry (2009), focused on the Prepared for the Competition Commission of India during the 2002-2007. The study is based on secondary data and the data has been taken from annual report of CARE steel industry report and India statically report. The study implemented for the presentation of

data which include the use of tables and growth rate. In the study the researcher has used variable such as- production, export and import etc. and found that the production of iron is increased continuous after financial reforms.

Performance of the Industry:

The iron and steel industries are most important industries in India. During 2014 through 2016, India was the Second largest producer of raw steel and the largest producer of sponge iron in the world. The industry produced 82.68 million tons of total finished steel and 9.7 million tons of raw iron. Most iron and steel in India is produced from iron ore. The Indian Ministry of Steel is concerned with: the coordination and planning of the growth and development of the iron and steel industry in the country, both in the public and private sectors. Raw materials of iron and steel are heavy and massive. They encompass iron-ore, coking coal and limestone. The finished products in turn are also heavy and need efficient transport system for their distribution. The Chota Nagpur plateau bordering West Bengal, Bihar, Orissa, and Madhya Pradesh has been the natural nerve-centre. Iron and steel is the backbone of the heavy machines and tools industry. Umpteen number of light, medium, small and cottage industries depend on it, as a result of modernization and industrialization of a country. Iron and steel also necessitates enormous investment, reliable infrastructure, means of transport and communication system and most importantly plentiful fuel or power supply. Various new policies and other initiatives undertaken by the Government of India have given a new thrust to the growth and flourishing of the iron and steel industry. As a result, expansion and modernization measures are being adopted by the units that already exist while numerous new plants are being set up in various regions of the nation. These plants are more improved, economic and cost effective as they use advanced technologies. Fuelled by growing demands from automobiles, infrastructure and the real estate sectors, the iron and steel industry of India has gained global recognition. India is among the top producers of all forms of steel in the world second position. Steel plays a vital role in the development of any modern economy. The per capita consumption of steel is generally accepted as a yardstick to measure the level of socioeconomic development and living standards of the people. As such, no developing country can afford to ignore iron and steel.

The production of DRI or Sponge Iron stood at 30.51 million tons in 2017-18. India was the largest producer of DRI in the world during the period since 2003, based on data / rankings released by the World Steel Association. Effective from 2017-18, with the approval of the Ministry of Steel and following rounds of interaction with industry experts, the JPC reporting system had changed, given the changing dynamics of steel industry, its changing structure and mode of operation and also the changes in the policy environment. Under the new system, production for sale has been replaced by gross production or

simply production – a concept applicable across the spectrum, from iron-making and crude steel to finished steel.

Development of iron and steel industry in India:

Indian steel industry is one of the fastest growing industries and contributes a significant amount to the country's Gross Domestic Product (GDP). As compared to China, India had an excellent beginning. India is the world's largest producer of direct reduced iron (DRI) or sponge iron. In 2012, India produced 73.79 million tons of crude steel as against 46.46 million tons in 2006. Pig iron production was 6.87 million tons in 2012-13, a growth of five per cent compared to previous year. Several measures undertaken by the government have increased the growth of the iron and steel industry in India. Some of the measures include low import duties, simple tax structure and unrestricted external trade. The social reforms introduced by the government improved the development process of iron and steel industries in India. The government has lately declared that special economic and investment regions would be established in almost six states. These would, henceforth support further processing of steel, including a few special economic zones where state of the art infrastructure would be provided by the government to develop a better industrial region. Thus, augmentation of production in iron and steel industry in India, by adopting more effective and efficient technologies for manufacture, will help in realizing social, environmental and economic development objectives. At present India produces 80 million tons of steel, but as per the 'National Steel Policy' country is expected to raise this production to 200 million tons by the year 2020. Though India has large reserves of iron ore, estimated at 28.52 billion tons, magnetite reserves could not be exploited due to the presence of these ores in the 'eco-fragile' zones mainly in the Western Ghats. Iron ore is found as hematite and magnetite in India in the ratio of 63:37. The competitive cost and good availability of labor and raw materials gives the Indian steel industry comparative cost advantage⁴. The iron and steel industry in India is divided into three categories i.e. main producers, other major producers and the secondary producers. The main producers and other major producers have integrated steel making facility with plant capacities over 0.5 mt and utilize iron ore and coal gas for production of steel. Amongst the Integrated producers, the major producers include Tata Steel Limited, Rashtriya Ispat Nigam Limited and Steel Authority of India Limited who generate steel by converting iron ore. The secondary producers like Ispat Industries, Lloyds steel and Essar Steel, create steel through the process of melting scrap iron. These are mainly small steel plants and produce steel in electric furnaces, using scrap and sponge iron.

The performance of iron and steel industries:

The production of steel and iron private and government sector financial year from 2013-2014 to 2017-2018.

year	Production by private sector (Million tons)	Production by public sector (Million tons)	Total production (Million tons)
2013-2014	64.92	16.78	81.69
2014-2015	71.77	17.21	88.98
2015-2016	71.87	17.92	89.79
2016-2017	79.48	18.46	97.94
2017-2018	83.83	19.75	103.13

The production of steel and iron industries total production of 81.69 million tons with 64.92 million tons private sectors and 16.78 million tons public sectors in financial year 2013-2014. In 2017-18 the total production iron and steel increased and become 103.13 billion tons with the contribution of public and private sector 19.75 million tons and 83.83 million tons.

Trend in steel export and import from 2011-12 to 2014-15

years	export	import
2011-12	4.59	6.86
2012-13	5.37	7.96
2013-14	5.98	5.45
2014-15	5.59	9.31

The table shows that trend of steel export and import from 2011-12 to 2014-15. The export of steel industries was 4.59 in financial year 2011-12. The import of steel industries was 6.86 in financial year 2011-12. In 2014-15 the export and import both increased and became 5.59 and 9.31 respectively.

Conclusion:

Indian steel industry is one of the fastest growing industries and contributes a significant amount to the country's Gross Domestic Product (GDP). As compared to China, India had an excellent beginning. India is the world's largest producer of direct reduced iron (DRI) or sponge iron. In 2017-2018, India produced 103.13 million tons. The trend of steel export and import 5.59 and 9.31 in financial years 2014-15. The iron and steel industries are most important industries in India. During 2014 through 2016, India was the Second largest producer of raw steel and the largest producer of sponge iron in the world. The industry produced 82.68 m million tons of total finished steel and 9.7 million tons of raw iron. Most iron and steel in India is produced from iron ore. The Indian Ministry of Steel is concerned with: the coordination and planning of the growth and development of the iron and steel industry in the country, both in the public and private sectors.

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