



APPRAISAL AND IMPORTANCE OF IRON & STEEL INDUSTRY IN INDIA



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ABSTRACT

India's economic growth is contingent upon the growth of the Indian steel industry. The performance of iron and steel industry was terms of primary indicators such as production, consumption and foreign trade (Export & Imports). It also studies growth in capacity production, utilization, and export & imports. It is deduced that the industry has grown manifold in the aspects of performance among the Indian manufacturing firms has increased. Therefore, that leads us to investigate the performance of the firms in the industry through composite growth year vs. year's indices.

KEY WORDS: *Performance, Indices, Production, Export and Import*

INTRODUCTION

India's economic growth is contingent upon the growth of the Indian steel industry. Steel is crucial to the development of any modern economy and is considered to be the backbone of human civilisation. The level of per capita consumption of steel is treated as an important index of the level of socioeconomic development and living standards of the people in any country. It is a product of a large and technologically complex industry having strong forward and backward linkages in terms of material flows and income generation. 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 modernisation and upgradation of older plants, improving energy efficiency and backward integration into global raw material sources. All major industrial economies are characterised by the existence of a strong steel industry and the growth of many of these economies has been largely shaped by the strength of their steel industries in their initial stages of development.

Steel industry was in the vanguard in the liberalisation of the industrial sector and has made rapid

strides since then. The new green field plants represent the latest in technology. Output has increased, the industry has moved up in the value chain and exports have raised consequent to a greater integration with the global economy. The new plants have also brought about a greater regional dispersion easing the domestic supply position notably in the western region.

India being is a developing country. Iron and steel industry has a very important role to play. The large amount of iron and steel is required for constructing bridges, rail tracks, railway rolling stock, ships, vehicles, various machines etc. As important industries like Railway locomotive, ship building, and light machine construction depend on the availability of iron and steel. Iron and steel industry accelerates industrialization and is therefore called the back bone of all industries.

LITERATURE REVIEW

The credit of finally initiating the iron and steel industry in India on a full-fledged scale goes to late Jamshedji Tata who in 1907 organized the Tata Iron and Steel Company (TISCO, now Tata Steel Ltd.).



The iron and steel production increased quite rapidly following Independence as India attempted to strategically invest in this core sector to bring about national industrial transformation (D.Costa 2006, p.8).

After passing through the initial phase of stabilization following the economic reforms and liberalization, the steel industry experienced a growth of 22 % and 14 % during 1994-95 and 1995-96, respectively (Mazumder and Ghoshal 2003, p.65).

The official estimate, the industry contributes around 2 % of the Gross Domestic Product and its weight in the Index of Industrial Production is 6.20 % (GOI 2008a, p.10).

The industrial recovery in India really began to be seen in 2002-03; was consolidated during 2003-04; gathered momentum during 2004-05; and scaled new heights during 2005-06 and 2006-07 (Muthuraman 2006).

The Indian iron and steel industry was freed from the shackles of control and liberalised in July 1991, which led it to grow in several dimensions. The main policy measures taken with regard to the industry include (GOI 2007):

1. The industry was removed from the list of industries reserved for the public sector and also exempted from the provisions of compulsory licensing.
2. The industry was included in the list of "high priority" industries for automatic approval for foreign equity investment up to 51 %. This limit has recently been increased to 100 %.
3. Price and distribution of steel were deregulated from January 1992.
4. The trade policy was liberalised where import and export was freely allowed.
5. Levy on account of Steel Development Fund was discontinued from April 1994, thereby providing greater flexibility to main producers to respond to the market.

Raw Materials: - Iron and steel Industry mainly requires three raw materials – coal, iron ore and limestone. Small amount of dolomite, manganese, nickel, tungsten etc. are also used. The plenty of water is necessary.

For explanation, the production of 1 tons of iron and steel generally 2 tons of iron ore, 1.75 tons of coal, 0.5 tons of limestone and 0.5 tones of manganese, nickel, dolomite etc. are required. Besides, nearly 60 tones of water are required.

GROWTH OF IRON AND STEEL INDUSTRY IN INDIA

Iron and steel industry started in Indian from ancient time as testified by the iron beam in the Konark Temple in Orissa and the 7 meters high iron pillar near Qutab Minar in Delhi. Iron and steel industries along modern line started in 1870 at Kulti in West Bengal called Barakar iron works. In 1779, Mottee and Farquhar attempted to set up a modern iron plant in Birbhum in West Bengal. In 1830 Marshall Heath set up an iron and steel plant to produce pig iron with the help of the East India Company in Portonova area of South Arkot in Tamil Nadu. But the factory closed due to the shortage of energy and machines also heath's death.

In 1900 Barakar Iron works produced nearly 35000 tones pig iron. The iron & steel industry really started in 1907. A Parsi businessman named Jamshedji Tata set one of the largest steel plants in India in Sakchi village in Bihar (present Jharkhand), now called Jamshedpur. Pig iron was product here in 1911 and steel was produced in 1914 therefore, in 1919 another iron & steel factory was set up in Bumpur. In 1923 another iron & steel factory was set up at Bhadravati in Karnataka.

EXISTING IRON & STEEL PLANTS IN INDIA

There are three types of iron and steel plants in India-

1. Integrated iron and steel plants- like in Jamshedpur, Rourkela Vishakhapatnam, Durgapur and Kulti- Bumpur. The plants are called integrated because, in an integrated or cohesive manner there are different factories producing coking coal, blast furnaces producing pig iron, steel ingot, finished steel etc. at the same time.
2. Alloy steel plants- like in Bhadravati, Salem and Durgapur. They are located near the integrated steel plants. They are some other steel plants for defense purpose like the mixed metals co-operation at Hyderabad. In the plants along with steel, manganese, nickel, tungsten and other metals are missed to produce alloy steel and other special steels. Japan, Germany, Britain, France, Italy etc. produce thousands of varieties of steel with highly developed technologies, thus their products are of such good quality their technological gap with India is great.
3. Small steel plants- include mini steel plant and sponge iron plant etc. they are run by electric arc furnace, producing 15-20 metric tons of steel.

There are over 216 such steel plants but at present only 177 such plants carry o production. At present in India there are seven large or integrated iron and steel plants and three alloy steel plants (producing stainless steel, nickel steel, chromium steel etc.)

DEVELOPMENT AFTER INDEPENDENCE

Since independence emphasis was laid on the development of iron & steel industry to bring about rapid industrialization in India. The first five year plan (1951-52 to 1955-56) had made no headway in iron & steel production but in the second five year plan (1956-57 to 1960-61) by government endeavor large iron and steel plants were set up at Durgapur in west Bengal Raurkela in Orissa and Bhilai at Madhya Pradesh. The third five year plan (1961-62 to 1966-67) saw the increase in production in these plants and attempted to set up another plant at Bokaro in Bihar.

The fifth five year plan (1974-75 to 1978-79) and seventh five year plan (1980-81 to 1984-85) and seventh five year plan (1985-86 to 1989-90) laid emphasis on expansion and increase in production of exiting steel plants and setting up of small steel plants in different parts of the country. Large steel plants require large capital to be set up. So in the eight (1981-92 to 1996-97) and ninth (1997-98 to 2002-03) five year plan emphasis was on setting up mini steel plants and private entrepreneurship was made welcome.

ROLE OF IRON AND STEEL INDUSTRY IN INDIA

The role of iron and steel industry in India GDP is very important for the development of the country. Iron and steel are among the most important components required for the infrastructure development in the country.

Role of iron and steel industry in India GDP facts:-

- i. The iron and steel industry in India is one of the fastest growing sectors.
- ii. The amount of crude steel produced in 2006-07 was 50-71 millions tones.
- iii. India ranks 5th in the world in terms of production of steel.

- iv. The amount of finished steel produced in 2006-07 was 51.9 million tones.
- v. The production of finished steel was increased by 16.52%.
- vi. The production of finished carbon steel was 24.8 million tons in the year 2006-07. vii. It is expected that India would become the second biggest producer of steel within the year 2016 and the production per year would be 137 million tones.
- viii. The exports pertaining to the steel industry was 6.26% during the period 2006-07.

Role of iron and steel industry in India GDP growth in future:-

- i. The Arcelor Mittal, which is the largest steel maker in the world, has plans of establishing two Greenfield steel projects with capacity of 12 million tons annually, in India.
- ii. The Tata steel ranks 5th in the world steel production and the company have plans of expanding its capacity by the year 2015.
- iii. Sail India biggest producer of steel has plans of increasing the production to 24.98 million tons annually.
- iv. Sino-Steel corporation china is planning to invest US \$ 4 billion to set up a 5 million tons capacity Greenfield steel plant.
- v. The acquisition of the Corus, the Anglo-Dutch steel manufacturer by the Tata steel.
- vi. The Algoma steel, Canada was acquired by Essar global for US \$ 1.63 billion.

Production:-

- i. Steel industry was delicensed and decontrolled in 1991-1992 respectively.
- ii. Today, India is the 4th largest crude steel producer of steel in the world.
- iii. In 2013-14, production for sale of total finished steel (alloy + non alloy) was 87.67 million tons.
- iv. Production for sale of pig iron in 2013-14 was 7.95 million tons.
- v. India is the largest producer of sponge iron in the world with the coal based route accounting for 88% of total sponge iron production in the country.

Table-1 Last five year's production for sale of pig iron and steel are given below:-

Indian steel industry : Production for sale (in million tons)					
Category	2009-10	2010-11	2011-12	2012-13	2013-14
Pig iron	5.88	5.68	5.371	6.870	7.950
Sponge iron	24.33	25.08	19.63	14.33	18.20
Total finished Steel (alloy + non-alloy)	60.62	68.62	75.70	81.68	87.67

Source: www.steel.gov.in / Joint Plant Committee (JPC)

India is the world's largest producer of sponge iron. Production of sponge iron in the country as an alternative feed material to steel melting scrap (re-usable steel waste), which was being imported hitherto in large quantities by the Electric Arc Furnace units and the Induction Furnace Units, has resulted in considerable savings in foreign exchange. The production has increased from 60.62 million tons in 2009-10 to 87.67 million tons in 2013-14. There is growth of production in finished iron and steel in the last 5 years has been at an impressive 44.62 %.

The Indian are focus, the trend on consideration of industry. There are focus technological improvement and new products. there is Higher production of value

added product, capacity expansion, upgradation of production process achieving cost effective production in an environment friendly manner, have been the major trust areas of the Indian iron and steel produced in a recent times. After liberalization, there has been no shortage of iron and steel materials in the country.

Imports:-

Last five years import of total finished steel is given bellow:-

The import of iron and steel items has been gradually reduced and Controls on imports of inputs over the years. This has opened up the domestic iron and steel sector to international competition.

Indian steel industry : Imports (In million tons)					
Category	2009-10	2010-11	2011-12	2012-13	2013-14
Total finished steel	7.38	6.66	6.86	7.93	5.45

Source: www.steel.gov.in / Joint Plant Committee (JPC)

The import regime for iron and steel has undergone major liberalisation moving gradually from a controlled import by way of import licensing, foreign exchange release, canalisation and high import tariffs to total freeing of iron and steel imports from licensing, canalisation and lowering of import duty levels. Export of iron and steel items has also been freely allowed.

Exports:-

Steel industry was in the vanguard in the liberalisation of the industrial sector and has made rapid

strides since then. The new green field plants represent the latest in technology. Output has increased, the industry has moved up in the value chain and exports have risen consequent to a greater integration with the global economy. The export destinations also got widened with Indian steel reaching very large number of countries in all the continents of the world. India's major markets for steel items include USA, Canada, Indonesia, Italy, West Asia, Nepal, Taiwan, Thailand, Japan, Sri Lanka and Belgium Iron & steel are freely exportable last five year export of total finished is given bellow.

Indian steel industry : Exports (in millions tons)					
Category	2009-10	2010-11	2011-12	2012-13	2013-14
Total finished steel	3.25	3.64	4.59	5.37	5.98

Source: www.steel.gov.in / Joint Plant Committee (JPC)

As a result, for a major part of the new industrial policies to enjoy the status of a net exporter of steel, even though the net export levels varied widely.

CONCLUSION

India being a developing country, Iron and steel industry has very important role to play. The large amount of iron & steel is required for constructing bridges, rail,

tracks, vehicles, various machine etc. The iron and steel industry in India is one of the fastest growing sectors. The Tata steel ranks 4th in world steel production and the company have plans of expanding its capacity by the year 2015. Iron & steel industries is accelerates industrialization in India. It is backbone of all industries. India has become self-sufficient in iron and steel materials in the last 3-4 years. Exports are rising and imports are taking place

mostly in a few specialised categories. Production and production capacities are increasing. The nation as a whole is making a massive effort for co-ordinated progress over a wide front to attain rapid economic development.

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