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# Export and Import Performance of Steel in India

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***Abstract:*** ***Steel is crucial to the event of any fashionable economy and is taken into account the backbone of human civilization. At present, developing countries lead the expansion in world steel demand. India is presently the world's third largest producer of crude steel and is anticipated to become the largest producer of crude steel within the world before long. The country is additionally the third largest client of finished steel (83.5 Million Tonnes in 2016) within the world preceded by China (681 Million Tonnes in 2016) and also the USA (91.6 million tonnes in 2016. Steel occupies this position due to its skillfulness, strength and recyclability. The steel sector contributes to over two of the country's gross domestic product and employs around 25 lakhs utilized in steel/allied sectors. Between 2008 and 2011 India has recorded a growth of 29.2% in Steel production. Indian industry has been preponderantly serving domestic market. Consumption of steel in India is a smaller amount compared to alternative Asian steel majors specifically China, Japan, and Republic of Korea. Thus, the business has scope for growth in future. In recent times, India is that the contributor of four p.c to the world's crude production and is anticipated to carry and retain its position in coming back years. The rapid climb of population, increase in urbanization still as increase in agricultural and industrial product together with sweetening of ordinary of living, give an honest scope for the event of Indian industry. Iron and Steel Exports stood at 7.606 million tonnes, a growth of 52.9% compared to 2016 and also the Imports stood at half dozen 0.097 million tonnes, a growth of 10.9% compared to the year 2016. This paper examines the export and import performance of Steel Industry from 2014-2015 to 2017-2018. The industry is mainly dominated by Tata Steel Ltd on the basis of overall competitiveness and financial and non - financial aspe cts of competitiveness.***

***Keywords*** **: *Indian Steel Industry, Steel Authority of India Limited (SAIL), Indian Steel Industry Performance, Trend of Indian Steel Industry, Growth of Steel Industry in India***

## I. INTRODUCTION

The Indian steel division was the first center segment to be totally liberated from the permitting routine. Since 1991, the segment has seen predictable changes including disposal of estimating and dispersion controls. The Indian iron and steel industry has traversed a long way since the primary steel plant went into activity in 1907.

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India was the third biggest impresario of steel in the world and the third maximum employer of steel in 2017. Steel Industry in 2017 additionally indicates a great standpoint for the Indian steel industry. While international production of crude steel at 1,691 million tonnes (MT) noted a growth of 5.3 per cent in 2017

The stretching within the Indian steel diligence was driven by the provision of staple like ore and remunerative labor reception. The steel sector has been a major donor to India's manufacturing yield. The Indian steel diligence is very contemporary with state-of-the-art steel mills. It has ever sought ongoing contemporization and upgrading of older plants and higher levels of robust efficacy. Indian steel industries, such as major impresarios, minor impresarios and incidental impresarios, are classified into three categories. Indian steel diligence was contributing toward 2 per cent to Gross Domestic Product (GDP) and its load in the Index of Industrial foreign immigrant (IIP) is 6.2 per cent. With a great honor India turned into a presumed name on the planet steel diligence. and yet amid the excessive occasions of asylum, the diligence was current of recoding the undoubted expansion rate.

## II. NEED FOR THE STUDY

The rapid population growth, increasing urbanization and agricultural and industrial product growth along with improved living standards, provide an excellent opportunity to develop the Indian steel industry. Global giants from all over the world has shown their interest in the industry because of its phenomenal performance. In analyzing its growth rates, industry performance in key in dicators including production, consumption, export, import, employment, etc. has been studied.The compound annual growth rate (CAGR) has been computed for the period of five years from 2013 to 2018 which will analyze the growth between the years. The Trend Analysis will be used to study the trend in upcoming years. The new plants have additionally led to a bigger regional dispersion easing the domestic offer position notably within the western region. At the identical time, the domestic industry faces new challenges. a number of these relate to the trade barriers in developed markets and bound structural issues of the domestic trade notably because of the high price of commissioning of recent comes. This is an attempt made by researcher to analyze the export and import performance of steel.

## III. RESEARCH METHODOLOGY

The study mainly based on the secondary data gathered from various sources such as publication reports from Ministry of Commerce and Industry, Director General of Foreign Trade and other important websites to fulfill the objectives of current study. This study uses the analytical tools like Mean, SD, Growth Rate, ANOVA and Trend Analysis.

## IV. PERIOD OF THE STUDY

The present study covers the period for five years i.e. from 2013 to 2018

## V. SHARE OF STEEL IN INDIA'S TOTAL EXPORTS

To know the level of exports in Steel and the growing importance of steel in India's exports. The data for the past five years i.e. from 2013 - 2018 has been collected for this present study

**TABLE - I- SHARE OF STEEL EXPORT IN INDIA'S TOTAL EXPORTS** **(Rs. in Lacs)**

| YEAR | TOTAL EXPORT | STEEL EXPORT | PERCENTAGE SHARE OF STEEL TO TOTAL EXPORT |
|---|---|---|---|
| 2013 - 14 | 16,34,34,828.96 | 77,254.32 | 0.05 |
| 2014 - 15 | 19,05,01,108.86 | 15,4325.00 | 0.08 |
| 2015 - 16 | 18,96,34,812.55 | 82,457.74 | 0.04 |
| 2016 - 17 | 17,16,36,804.38 | 164845.00 | 0.10 |
| 2017 - 18 | 18,12,136,54.32 | 15,63,589.00 | 0.06 |
| **Mean** | **18,00,30,086.06** | **11,4067.75** | - |
| **S.D** | **39,048.62** | **11,65,712.12** | - |
| **C.V** | **0.26** | **0.30** | - |
| **CAGR %** | **2.50** | **3.43** | - |

**(Source: DGCI&S and EXIM Bank Annual Report)**

During the Study period 2013 - 18, from the Table 1 explains that the India's total exports has been increased from Rs. 16,34,34,828.96 to Rs. 19,05,01,108.86 during the year 2014 - 15 and on this the total steel has reported at 0.08% growth for the year 2014 - 15. The Coefficient of variation for the total exports was at 0.26 percent and the steel exports stood at 0.30 percent. The Compounded Annual Growth Rate (CAGR) for the total exports was of 2.50 percent and the Steel exports is of 3.43 percent which shows the consistent and significant growth.

## VI. EXPORT PERFORMANCE OF STEEL

Among India's main ten fare markets, Sri Lanka, Malaysia and Belgium got the biggest offers of their all out fares from India in 2018 at 36 percent, 8.4 percent and 8.2 percent, separately. India sustained to Steel trade surplus since 2017.

**TABLE - II - EXPORT PERFORMANCE OF STEEL**

**(Rs in Lacs)**

| YEAR | TOTAL EXPORT | STEEL EXPORT | GROWTH RATE |
|---|---|---|---|
| 2013 - 14 | 16,34,34,828.96 | 77,254.32 | - |
| 2014 - 15 | 19,05,01,108.86 | 15,4325.00 | **2.00** |
| 2015 - 16 | 18,96,34,812.55 | 82,457.74 | **0.53** |
| 2016 - 17 | 17,16,36,804.38 | 164845.00 | **2.00** |
| 2017 - 18 | 18,12,136,54.32 | 15,63,589.00 | **1.06** |

**Source: Computed**

During the Study period 2013 - 18, from the Table 2 we may infer that the growth in the India's Steel exports was maximum with 2 percent during the year during the year 2014 - 15 and during the year 2014 - 15. The minimum growth rate of steel was during 0.53 percent during 2015 - 16.

**TABLE - III- PROJECTED VALUE OF STEEL EXPORTS**

**(Rs in Lacs)**

| YEAR | TOTAL EXPORT |
|---|---|
| 2018 - 19 | 174654 |
| 2019 - 20 | 195685.23 |
| 2020 - 21 | 211702.25 |
| 2022 - 23 | 231587.14 |
| 2023 - 24 | 245354.47 |

**Source: Computed.**

During the study period the projected values for the steel exports are seen at the inclining trend during 2018 - 2024 which is in between 174,654 to 245,354.47.

**TABLE - IV - EXPORT PERFORMANCE OF STEEL (COUNTRY- WISE )**

| YEAR | CHINA | JAPAN | GERMANY | SOUTH KOREA | RUSSIA |
|---|---|---|---|---|---|
| cc2013 - 14 | 297000 | 354000 | 291000 | 223000 | 260000 |
| 2014 - 15 | 368000 | 420000 | 371000 | 343000 | 340000 |
| 2015 - 16 | 247000 | 358000 | 362000 | 353000 | 250000 |
| 2016 - 17 | 225000 | 253000 | 254000 | 243000 | 280000 |
| 2017 - 18 | 212000 | 202000 | 204000 | 218000 | 270000 |
| **CAGR** | **-6.52** | **-10.61** | **-6.86** | **-0.45** | **0.76** |
| **Rank** | **III** | **V** | **IV** | **II** | **I** |

**Source: Computed, Data Derived from Exim Bank Annual Report - 2013 - 18**

During the study period 2013 - 2018 the CAGR for the steel exports to the other countries are observed and the maximum growth rate is seen in the case of Russia (0.76 %) followed by South Korea (-0.45 %), China (-6.52 %), Germany (-6.86 %) and then Japan (-10.61 %) and The lowest growth rate is seen in the case of Japan (-10.61%).

## VII. IMPORT PERFORMANCE OF STEEL

The below table - V explains the import performance of Steel in India.

During the Study period the import performance of steel from 2013 to 2018 the CAGR was highest for Germany (2.74%) and the lowest is for South Korea (-1.10%) The China has 2.38 % growth and followed by are Japan (1.23%) and Russia (1.05%).

## VIII. RESULT

Set 1: Ho : There is no significant difference in their values in the country wise export performance of steel products in India.

Set 2: Ho : There is no significant difference in their values of country wise export performance of steel during 2013 – 18.

**Table- VI: ANOVA**

| | Sum of Squares | df | Mean Square | F-Value | *P - Value* | *F - Crit* |
|---|---|---|---|---|---|---|
| **Between column** | 78690665.10 | 3 | 217345252.03 | 20.34 | 1.230 | 2.004 |
| **Within Row** | 11743276.23 | 3 | 25722339.23 | 1.4 | 0.023 | 2.004 |
| **Residual** | 17460617.40 | 17 | 12065378.6 | | | |
| **Total** | 1240627065 | 23 | | | | |

**Source: Computed using SPSS**

## ANALYSIS & INTERPRETATION

**Set 1: Ho:** The value 'F' (20.34) is greater than the critical value 'F' (2.004) thus the null hypothesis is 'rejected'. And, there is a significant difference in the values of country wise export performance of steel.

**Set 2: Ho:** Here the Null Hypothesis is accepted since the calculated value 'F' (1.4) is less than that of critical value 'F' (2.004), where the significant value is at 4.2% . Therefore there is no significant difference in the computed values for the country wise export of steel during the study period 2013 to 2018.

**Table- VII: ANOVA**

| | Sum of Squares | df | Mean Square | F-Value | *P - Value* | *F - Crit* |
|---|---|---|---|---|---|---|
| **Between column** | 14565858.2 | 3 | 4762532 5 | 98.3 | 2.487 | 2.004 |
| **Within Row** | 61325582.70 4 | 3 | 1024765 | 2.402 | 0.21 | 2.004 |
| **Residual** | 71235658.01 2 | 14 | 345561.2 | | | |
| **Total** | 214352474.01 | 22 | | | | |

**Source: Computed using ANOVA**

## RESULT

Fig. 1. Set 1: Ho: The value 'F' (98.3) is greater than the critical value 'F' (2.004) thus the null hypothesis is 'rejected'. And, there is a significant difference in the values of country wise export performance of steel.

Set 2: Ho: Here the Null Hypothesis is accepted since the calculated value 'F' (2.402) is more than that of critical value 'F' (2.004), where the significant value is at 4.2% . Thus we may conclude that there is no significant difference in the computed values for the country wise export of steel during the study period 2013 to 2018.

## IX. CONCLUSION

Although the threat of Steel imports had arisen, Indian steel companies have invested heavily in modernizing and expanding their existing units and environment friendly operational plants to create a world - class, cost - efficient, environmentally friendly and socially responsible industry. In addition to emphasizing the competitiveness, the Indian steel industry is fully geared towards improving the exports of steel to other developed countries for the purpose of gaining profits. In this role, the Government initiatedNational Steel Policy 2017, which set out the broad road map for supporting long term economic growth for both the demand and supply sectors of the Indian steel industry by 2030 - 31.

**TABLE – V COUNTRY WISE IMPORT PERFORMANCE OF STEEL**

| YEAR | CHINA | JAPAN | GERMANY | SOUTH KOREA | RUSSIA |
|---|---|---|---|---|---|
| 2013 - 14 | 297000 | 270000 | 214000 | 204000 | 187000 |
| 2014 - 15 | 301000 | 264000 | 208000 | 176000 | 168000 |
| 2015 - 16 | 315000 | 271000 | 221000 | 182000 | 172000 |
| 2016 - 17 | 322000 | 246000 | 234000 | 179000 | 184000 |
| 2017 - 18 | 334000 | 287000 | 245000 | 193000 | 197000 |
| CAGR (%) | **2.38** | **1.23** | **2.74** | **-1.1** | **1.05** |
| **Rank** | **II** | **III** | **I** | **V** | **IV** |

Source: Computed Values and Data Derived from Exim Bank Annual Report - 2013 – 18

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