



# **A STUDY ON EXPOLRING INDIAN EXPORTS USING ELECTONICS**

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## **ABSTRACT**

This study investigates the role of electronics in shaping India's export landscape, with a focus on trends, challenges, and opportunities within the sector. As one of the fastest-growing segments in the Indian economy, electronics exports have shown significant potential to contribute to national growth, driven by global demand, policy incentives, and technological advancements. The research analyzes export data, identifies key markets, and examines government initiatives such as the Production Linked Incentive (PLI) scheme. It also evaluates the barriers faced by Indian electronics manufacturers, including supply chain constraints, technological gaps, and global competition. The findings highlight the strategic importance of strengthening the electronics manufacturing ecosystem to enhance export competitiveness. This study provides valuable insights for policymakers, exporters, and investors aiming to leverage the potential of electronics in boosting India's global trade presence.



## 1. INTRODUCTION

The India's electronics export sector has emerged as a significant contributor to the country's economic growth, driven by rapid advancements in technology, increasing global demand, and government initiatives promoting manufacturing and exports. The Indian electronics industry encompasses a wide range of products, including consumer electronics, industrial electronics, computer hardware, mobile devices, and semiconductors. With the rise of globalization and digital transformation, India's position as a key player in the global electronics market is becoming more prominent. The increasing adoption of electronics across various industries, such as healthcare, telecommunications, and automotive, has further strengthened the export potential of Indian electronic products. One of the major factors contributing to the growth of Indian electronics exports is the 'Make in India' initiative, which aims to boost domestic manufacturing and reduce dependency on imports. The Production-Linked Incentive (PLI) scheme introduced by the Indian government has attracted several multinational companies to establish production units in the country, enhancing India's competitiveness in the global electronics market. Additionally, the presence of a strong supply chain network, skilled workforce, and cost-effective production processes have made India a preferred destination for electronics manufacturing and exports. India's major export destinations for electronics include the United States, European Union, Middle Eastern countries, and Southeast Asian nations. Mobile phones, semiconductors, printed circuit boards (PCBs), and consumer electronic goods constitute a significant portion of the total electronics exports.



## 2 LITERATURE OF MAIN CONTENTS

### 2.1 OBJECTIVES OF STUDY

- To analyze the growth trends and key factors influencing Indian electronics exports.
- To identify the challenges faced by Indian electronics exporters and their impact on global competitiveness.
- To explore strategies and government initiatives that can enhance India's position in the global electronics export market.

### 2.2 SCOPE OF STUDY

This study focuses on analysing the growth trends, challenges, government policies, technological advancements, and competitive advantages that shape India's electronics export sector. It examines how factors like FDI, supply chain development, infrastructure improvements, and global market trends influence India's position in international trade. The study also explores the impact of semiconductor manufacturing, 5G technology, and emerging markets on future exports. By assessing the role of government initiatives, industry participation, and policy frameworks, the study aims to offer recommendations for boosting India's export potential. The findings will be beneficial for electronics manufacturers, policymakers, researchers, and investors looking to understand and leverage India's position in the global electronics market.

### 2.3 STATEMENT OF PROBLEM

The Indian electronics export sector has witnessed significant growth in recent years, driven by government initiatives, increasing global demand, and advancements in technology. However, despite its potential, the industry faces several challenges, including high import dependency on raw materials, supply chain disruptions, fluctuating global trade policies, and intense competition from established electronics-exporting nations like China, Taiwan, and South Korea. Additionally, compliance with international quality standards and technological advancements remains a hurdle for many Indian manufacturers. This study aims to analyze the key challenges hindering the growth of Indian electronics exports, identify opportunities for expansion, and explore strategic measures to enhance the country's global competitiveness in



the electronics industry



## **2.4 RESEARCH AND METHODOLOGY**

The research methodology for this study follows a quantitative approach, focusing on the collection and analysis of numerical data to understand trends, challenges, and growth prospects in India's electronics export sector. A structured questionnaire was designed to gather responses from exporters, manufacturers, policymakers, and industry experts, using a survey-based method to ensure objective and measurable insights. The collected data was analyzed using statistical tools to identify key patterns, correlations, and factors influencing India's electronics exports. The research design for this study follows a descriptive research approach, aiming to systematically analyse and describe the current state of India's electronics exports. This method is used to identify growth trends, challenges, government policies, technological advancements, and competitive advantages in the sector. By employing survey-based data collection and statistical analysis, the study provides a clear and detailed understanding of various factors influencing export performance. Descriptive research helps in capturing factual and quantifiable insights, allowing for a comprehensive assessment of India's position in the global electronics market. The findings from this study will serve as a valuable resource for exporters, policymakers, and industry stakeholders in making informed decisions.



### 3 COLLECTION OF DATA

The data was collected through questionnaire.

- The sample size was 135.
- The area of study was Coimbatore.
- Data's used in this study was both primary and secondary data's.

### 3.1 ANALYSIS AND DISCUSSION

**TABLE NO 3.1**  
**TABLE SHOWING THE ELECTRONICS CATEGORY WITH THE HIGHEST**  
**EXPORT POTENTIAL FOR INDIA**

<b>Electronics Category</b>	<b>Respondents</b>	<b>Percentage (%)</b>
Mobile phones and accessories	38	38%
Semiconductors and PCBs	26	26%
Consumer electronics (TVs, refrigerators, etc.)	20	20%
Industrial and medical electronics	16	16%
<b>Total</b>	<b>100</b>	<b>100%</b>

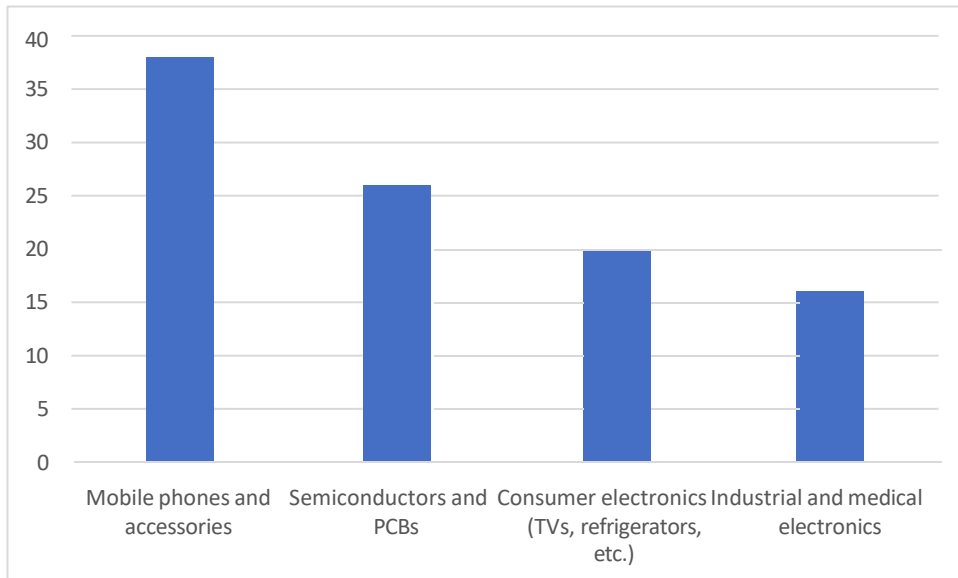
**SOURCE:** Primary Data

#### Interpretation

A significant 38% of respondents believe that mobile phones and accessories have the highest export potential, reinforcing India's growing role as a global smartphone manufacturing hub. Semiconductors and PCBs follow with 26%, reflecting the increasing focus on domestic chip production. Consumer electronics like TVs and refrigerators account for 20%, showing steady demand, while industrial and medical electronics are considered promising by 16%.



**Chart 3.1: Electronics Category with the Highest Export Potential for India**





**TABLE NO:3.2**  
**TABLE SHOWING THE LARGEST IMPORTER OF INDIAN ELECTRONICS**

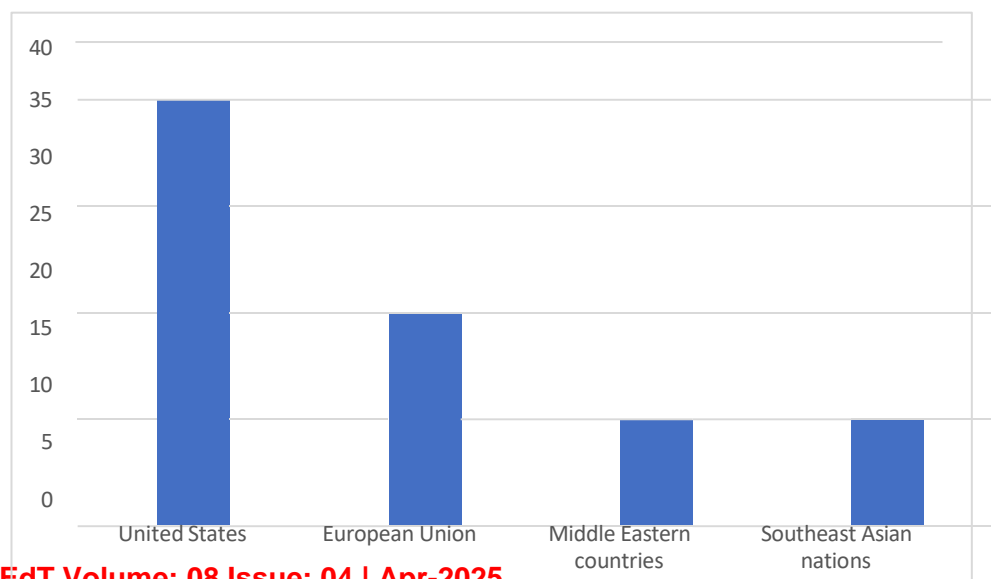
Country/Region	Respondents	Percentage (%)
United States	35	35%
European Union	25	25%
Middle Eastern countries	20	20%
Southeast Asian nations	20	20%
<b>Total</b>	<b>100</b>	<b>100%</b>

**SOURCE:** Primary Data

### Interpretation

According to 35% of respondents, the United States is perceived as the largest importer of Indian electronics, highlighting strong trade relations and demand for Indian tech products. The European Union follows with 25%, showcasing its significance as a key export destination. Middle Eastern countries and Southeast Asian nations each account for 20%, indicating their growing role in India's electronics export market. These insights suggest that India's exports are well-diversified across multiple regions, with a primary focus on Western markets.

**Chart : Largest Importer of Indian Electronics**





**TABLE 3.3**  
**TABLE SHOWING THE EFFECTIVENESS OF GOVERNMENT INITIATIVES IN BOOSTING EXPORTS**

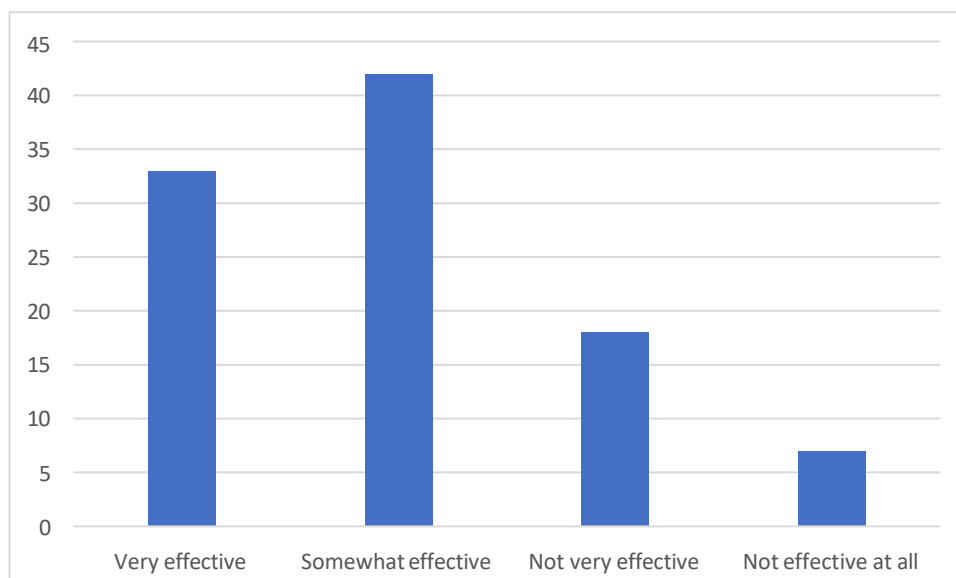
Effectiveness Level	Respondents	Percentage (%)
Very effective	33	33%
Somewhat effective	42	42%
Not very effective	18	18%
Not effective at all	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>

**SOURCE:** Primary Data

### Interpretation

A majority (42%) of respondents believe that government initiatives like ‘Make in India’ and PLI (Production Linked Incentive) schemes have been somewhat effective in boosting exports. 33% find them very effective, showcasing strong confidence in these policies. 18% feel they are not very effective, 7% believe they are not effective at all.

**Chart 3.3: Effectiveness of Government Initiatives in Boosting Exports**





**TABLE 3.4**

**TABLE SHOWING THE SUGGESTED GOVERNMENT MEASURES TO IMPROVE ELECTRONICS EXPORTS**

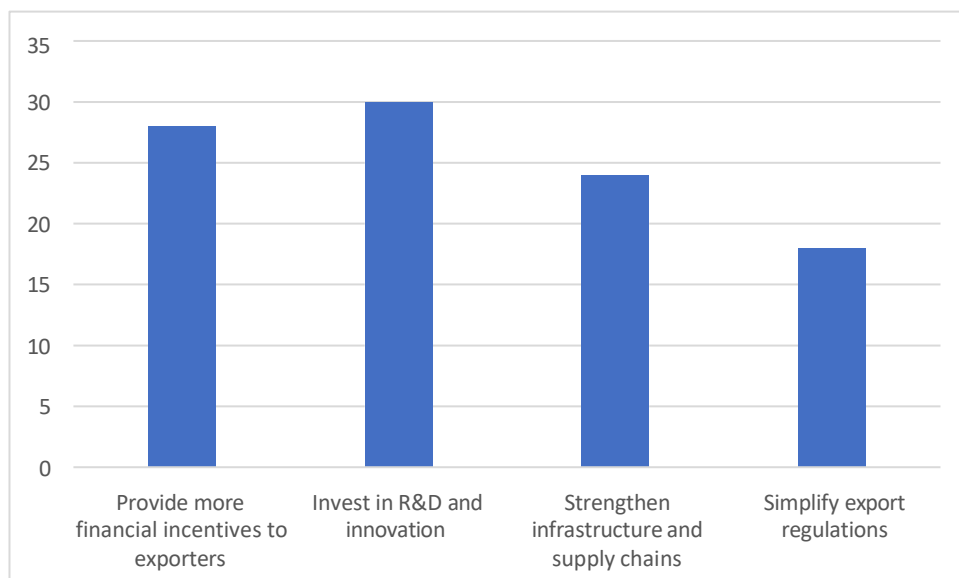
Suggested Measure	Respondents	Percentage (%)
Provide more financial incentives to exporters	28	28%
Invest in R&D and innovation	30	30%
Strengthen infrastructure and supply chains	24	24%
Simplify export regulations	18	18%
<b>Total</b>	<b>100</b>	<b>100%</b>

**SOURCE:** Primary Data

### Interpretation

The most recommended measure is investing in R&D and innovation (30%), indicating the need for technological advancements to stay competitive in the global market. Providing more financial incentives to exporters (28%) is also seen as crucial, emphasizing the role of policy support in boosting exports. Strengthening infrastructure and supply chains (24%) is another key area.

**Chart 3.4: Suggested Government Measures to Improve Electronics Exports**





**TABLE 3.5**

**TABLE SHOWING THE IMPACT OF GLOBAL SEMICONDUCTOR SHORTAGE ON INDIAN ELECTRONICS EXPORTS**

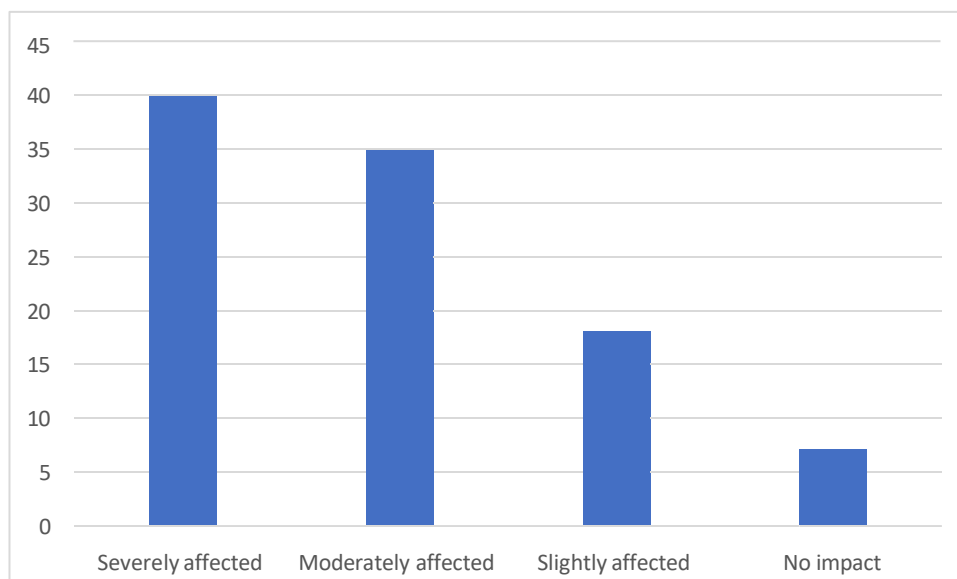
Impact Level	Respondents	Percentage (%)
Severely affected	40	40%
Moderately affected	35	35%
Slightly affected	18	18%
No impact	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>

**SOURCE:** Primary Data

### Interpretation

The global semiconductor shortage has had a significant impact on Indian electronics exports, with 40% of respondents stating that it has severely affected the industry, causing disruptions in production and supply chains. Another 35% believe it has had a moderate impact, indicating challenges but not complete stagnation. 18% feel it has only slightly affected exports, while 7% report no impact.

**Chart 3.5: Impact of Global Semiconductor Shortage on Indian Electronics Exports**





#### 4 CONCLUSION:

The study on Indian electronics exports highlights both the growth potential and the challenges faced by the industry. Findings indicate that while government initiatives like 'Make in India' and PLI schemes have contributed to growth, significant barriers such as import dependency, infrastructure gaps, and compliance with international quality standards still exist. The global demand for affordable and high-quality electronics presents a major opportunity for India, but to compete with leading exporters like China and Taiwan, strategic investments in semiconductor production, R&D, and supply chain improvements are essential. Strengthening trade alliances, simplifying export regulations, and fostering technological advancements will further enhance India's position in the global electronics market. With the right policies and industry collaboration, India has the potential to emerge as a major electronics export hub in the coming decade. Overall, the study demonstrates that electronics exports have the potential to be a key driver of India's economic growth and trade development. By leveraging its strengths in IT and electronics manufacturing, India can increase its share in the global electronics market and create new opportunities for businesses and workers. To achieve this goal, the government and industry stakeholders must work together to address the challenges facing the sector, such as infrastructure gaps, skill shortages, and competition from other low-cost producers." "The study highlights the importance of electronics exports in India's export basket and the need to diversify the country's electronics exports to reduce dependence on a few key markets. The analysis suggests that India has the potential to emerge as a major player in the global electronics market, driven by its large and growing domestic market, its strengths in IT and electronics manufacturing, and its strategic location. To realize this potential, the government and industry stakeholders must work together to create a favorable business environment, invest in infrastructure and skills development, and promote innovation and R&D in the electronics sector."



## 5 REFERENCE

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