CINEFORUM
ISSN: 0009-7039
Vol. 64. No. 2, 2024

Evaluating the Role of Special Economic Zones (SEZs) in Boosting India's Export Performance: An Empirical Analysis

Mohd Salman, *Research Scholar, Department of Commerce and Business Management, Integral University, Lucknow. Email: mohdsalmanbscazm@gmail.com*

Dr. Syed Shahid Mazhar, *Professor & Head, Email id: ssmazhar@iul.ac.in, Mob:08303214520*
ORCID:0000-0003-1449-1480 ***(Corresponding Author)***

Dr Farhina Sardar Khan, Associate Professor, *Department of Commerce, Integral University Lucknow*
farhina@iul.ac.in,

[Abstract] *This study examines the effectiveness of Special Economic Zones (SEZs) in enhancing India's export performance. Despite the widespread adoption of SEZs across India, their impact on export growth remains debatable. Utilizing a combination of government export data and case studies from key sectors within SEZs, this study employs regression analysis to quantify the contribution of SEZs to India's export volumes. The findings reveal that, while SEZs have significantly boosted exports in specific high-tech and manufacturing sectors, their overall impact on national export growth is nuanced, with variations across different regions and industries. This study also considers the indirect benefits of SEZs, such as job creation and technology transfer, offering a comprehensive view of their role in India's economic strategy. The paper concludes with recommendations for policy adjustments to maximize the benefits of SEZs. This analysis is crucial for policymakers, investors, and economic planners aiming to optimize the economic outcomes of SEZs in India.*

[Keywords]: Special Economic Zones (SEZs), Export Performance, Economic Development, India, Trade Policy, Regional Economic Growth

Introduction

Special Economic Zones (SEZs) have been a cornerstone of India's economic policy to boost exports, attract foreign investment, and generate employment. Following successful models in China and Singapore, SEZs in India aim to create conducive regulatory environments for businesses to operate more easily and efficiently. Despite the optimistic inception of SEZs, their actual impact on the nation's export performance and economic development has been mixed, leading to vigorous debate among economists, policymakers, and business communities. This study empirically analyzes the role of SEZs in enhancing India's export performance by utilizing extensive export data and focusing on diverse sectors within these zones. Using quantitative methods and regression analysis, this study evaluates the contribution of SEZs to India's exports and examines variations across different industries and regional distributions.

Special Economic Zones (SEZs) are designated areas within a country where business and trade laws differ from the rest of the country, with the aim of increasing trade balance, investment, job creation, and effective administration. Initially popularized by China, which established the first successful modern SEZs in the early 1980s as part of its economic reforms, SEZs have since been adopted globally as strategic tools for economic development. These zones typically offer businesses reduced tax obligations, customs duty benefits, and a more liberal regulatory regime to encourage domestic and foreign investors to engage in industrial, service, or trade activities that contribute to the export-oriented growth of an economy.

Evolution and Development of SEZs in India

The concept of Special Economic Zones (SEZs) in India was formally introduced in 2000 under the Foreign Trade Policy, but its roots were traced back to 1965 with the establishment of the first Export Processing Zone (EPZ) in Kandla, Gujarat. This was a pioneering step aimed at promoting exports by offering businesses an enhanced infrastructure, duty-free imports, and a variety of other incentives. As global economic landscapes evolved and the success of EPZs in countries such as China became apparent, India recognized the need to expand and transform its EPZ framework to compete on a global scale. The transformation from EPZs to SEZs was marked by the enactment of the Special Economic Zones Act in 2005, which provided comprehensive policy measures to enhance foreign investment and export performance. The SEZ Act simplified procedures, provided single-window clearances, and offered tax exemptions, all aimed at creating a conducive environment for trade and investment. Unlike EPZs, which were primarily government-owned and operated, SEZs allowed private and joint sector participation, broadening the scope and scale of these zones. Since the implementation of the SEZ Act, India has established numerous SEZs across the country that are strategically located to leverage the geographic and sectoral strengths of various regions. These zones have attracted significant domestic and international investments and have been instrumental in creating millions of jobs. The key sectors that have thrived in these zones include information technology, pharmaceuticals, textiles, and biotechnology.

For instance, as of 2023, there are 379 notified SEZs in India, of which 268 are operational, contributing significantly to the export economy. In the fiscal year 2022-2023, SEZs accounted for approximately 30% of India's total exports, amounting to USD 112 billion. This represents a substantial increase from to 2006-2007 when SEZ exports were USD 15 billion, illustrating the growth trajectory and importance of these zones over the years. However, this journey is not without its challenges. SEZs have faced criticism for issues such as land acquisition disputes, the underutilization of developed zones, and environmental concerns.

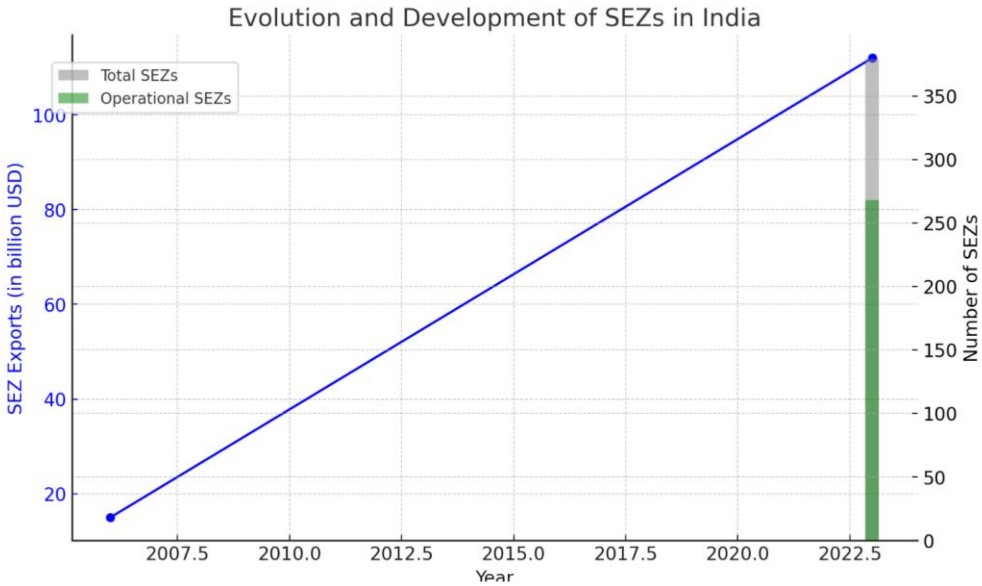

Figure 1 Evolution of SEZs (Source: Economic survey)

Additionally, the expected economic impact and contribution to the broader economy have occasionally fallen short of expectations, leading to debates about the overall efficacy and strategic implementation of SEZ policies. Despite these challenges, the evolution of SEZs in India represents a critical aspect of the country's economic development strategy, reflecting a shift towards more liberalized economic policies and a focus on integration into the global economy. As the global trade environment continues to evolve, the SEZs in India also continue to adapt, aiming to fulfil their potential as catalysts for economic growth, export promotion, and employment generation.

Review of literature

(Aggarwal, 2010) studied "Economic Impacts of SEZs: Theoretical Approaches and Analysis of Newly Notified SEZs in India" and said that financial impacts of Special Economic Zones (SEZs) in India are examined in this study, which takes philosophical frameworks, historical evolution, and problems of conceptual ambiguity into consideration. It argues that existing economic theories fail to adequately examine the premises and effects of SEZs. Investment and employment prospects are enhanced by Special Economic Zones (SEZs), but SEZs truly shine when it comes to reorienting economies from a resource-based to a technology-and-skill-based economy, from low- to high-value-added production, and from disordered to organized industries. They have the potential to diversify regional economies, expand their reach of existing ones, create new industries, strengthen existing ones, diversify regional value chains, and diversify economies at the regional level.

(Tantri 2011) studied the Trade Performance of SEZs in India: A Disaggregated-level Analysis, and said that an examination of seven of India's special economic zones (SEZs) was placed between 1986 and 1987 and 2007 and 2008. There were large differences in performance across and within zones; however, zones in economically developed states fared better. This study urges lawmakers to take action while also lauding regional variations in the SEZ structure.

(Srivastava et al., 2014) studied "export performance and operational problems of Special Economic Zones in India- a critical evaluation" and said that Special Economic Zones are regions that have a more flexible economic policy. Some names for these areas are free trade zones, industrial states, free ports, free zones, and export-processing zones. Increased exports, employment, and FDI are the final goals. There have been several successful cases; Shenzhen, China, is only one of the many. Other countries include Brazil, Kazakhstan, Pakistan, India, Iran, and Jordan.

(Amit Shrivastava & Bhupendra Kumar, 2016) studied "A Critical Evaluation of Export Firms with Special Reference to Moradabad and Noida Special Economic Zones (SEZs)" and said that Some examples of Special Economic Zones (SEZs) with liberal economic policies are Free Trade Zones, Export Processing Zones, Free Zones, Industrial Estates, Free Ports, and Urban Enterprise Zones. The goal of these zones is to increase exports, employment, and foreign investments. An example of a city that has successfully grown to accommodate more than 10 million people is Shenzhen. More than 68 million jobs and $500 billion in trade-related value have been generated by more than 3,000 special economic zones (SEZs) set up in 135 countries.

(Tantri, 2016) studied "Special economic zones in India: policy, performance and prospects" and said that assessing the policymaking of special economic zones (SEZs) in India and China, this book focuses on the performance of these zones using both standard and novel frameworks, including the zone trade performance index, the resource cost framework, and efficiency analysis. This article proposes a new way to measure the effectiveness of SEZs and suggests legislative changes that might make them more useful development engines. Special Economic Zone (SEZ) initiatives and cross-zone industrial processes are cast into question in this book about their economic viability.

(Shrivastava, 2017) studied “A Study on Export Performance of India with reference to Special Economic Zones” and said that This study delves at the relationship between India's total exports and exports from Special Economic Zones (SEZs). It has been shown that just four states—Gujarat, Tamil Nadu, Karnataka, and Maharashtra—are positively associated with total exports. While exports are essential for a country's economy, research shows that SEZs are not doing as well as they were in the past.

(Kumar & Phougat, 2021) studied “Performance of Exports, Investment and Employment under Special Economic Zones in India” and said that Results on exports, investment, and new job creation as a result of India's Special Economic Zones (SEZs) are the focus of this research. As of January 31, 2021, 265 SEZs are functioning according to secondary data from to 2006-07 to 2020-21. Significant investments and jobs are attracted to these SEZs, which helps reduce poverty in India.

(Gorg & Mulyukova, 2022) studied “Place-Based Policies and Agglomeration Economies: Firm-Level Evidence from Special Economic Zones in India” and said that This study examines the effects of special economic zones (SEZs) on the Indian economy using a combination of geocoded firm-level data and SEZs. This study's bottom-performing businesses are mostly blamed for the conclusion that SEZs do not significantly boost firm productivity. However, because of their externalities, they hurt neighbouring firms, especially large, local, manufacturing, and non-importing enterprises.

(Thayyil & Habeeburahiman, 2022) studied “Determinants of SEZ Units’ Export Performance and the Mediating Effects of Commitment, Knowledge and Capabilities” and said that the study delves into the elements that impact a company's performance in the export market by analyzing survey data from influential persons in India's Cochin and Madras Special Economic Zones. The Resource Based View hypothesis examines several criteria, including firm resources, age, location, size, and international experience. The findings show that resources have an effect on export performance, even though they have an indirect effect on export success via capacity, knowledge, and commitment. A company's goals should include amassing material, human, financial, and organizational resources; strengthening commitment; and improving relational, product development, and informational capabilities.

Nsakaza and Kanchebele (2024) studied A Traditional and Non-traditional Export Performance Assessment: An empirical examination of factors enhancing the competitiveness of Zambia's exports and said that this research analyzes Zambia's export performance using a time series approach spanning 1960–2021. Both FDI and real gross domestic product have positive effects on export volume. Research shows that trade strategies that focus on transferring expenditures are useless. It recommends establishing Multi-Facility Economic Zones to promote inclusiveness, diversity, and investment growth.

Significance of the Study

Importance of SEZs in the Indian Economy

SEZs have been pivotal in India's strategy of stimulating economic growth by enhancing export performance, attracting direct foreign investment, and creating new employment opportunities. They are intended to make domestic enterprises more competitive on a global stage by providing state-of-the-art infrastructure and an efficient regulatory framework. Over time, India's SEZs have evolved to include a broad spectrum of industries, including technology, pharmaceuticals, textiles, and biotechnology, each tailored to leverage the geographic and economic strength of their regions.

Rationale for Focusing on Export Performance

Despite the intended economic benefits, SEZs in India and worldwide have faced criticism regarding land acquisition processes, displacement of local populations, environmental concerns, and actual economic returns relative to the incentives provided. The mixed results in terms of export performance necessitate a detailed empirical analysis to understand the actual impact of SEZs and to identify areas for improvement. This analysis offers insightful recommendations for refining SEZ policies, thereby aligning them more effectively with India's broader economic goals.

Research Objectives

- Evaluating the impact of SEZs on India's export performance.
- To identify the key factors contributing to the success or failure of SEZs.
- To assess the role of SEZs in job creation and technological advancement.
- To provide a nuanced understanding of sector-specific successes and the overall economic contributions of SEZs.

By bridging the gap between theoretical expectations and actual outcomes, this study provides a comprehensive evaluation of SEZs as instruments of economic development in India, offering valuable insights for policymakers, economic planners, and investors.

Research Questions

- What role do Special Economic Zones (SEZs) play in enhancing India's export performance?
- What are the key determinants of export performance in SEZs?

Methodology:

This study employed a robust empirical analysis approach to evaluate the impact of Special Economic Zones (SEZs) on India's export performance. Data were meticulously collected from government reports, SEZ-specific databases, and industry publications, covering a comprehensive period of five years prior to the study. The primary aim was to establish the relationship between SEZ activities and export growth using multiple regression analysis as the key statistical method. This technique allowed us to examine the influence of various independent variables, including sectoral variations (e.g., technology and pharmaceuticals) and regional differences (coastal vs. inland SEZs), on the dependent variable of export growth. The key variables analyzed included export volume, employment rates, and investment levels, with performance indicators focusing on the growth rate, job creation, and investment inflows. The regression coefficients provided insights into the strength and direction of these relationships, whereas the p-values assessed their statistical significance.

Results

The data for this study were collected from various sources including government reports, SEZ-specific databases, and industry publications. The data span from 2005, when the SEZ Act was enacted, to 2023. The key metrics include export volumes, employment figures, investment levels, and number of operational SEZs.

Metric	**2006-2007**	**2022-2023**	**Change (%)**
Export Volumes (USD)	15 billion	112 billion	+646.7%
Employment Figures	0.5 million	2 million	+300%
Investment Levels (USD)	5 billion	70 billion	+1300%
Number of Operational SEZs	19	268	+1310.5%

Table 1 Descriptive statistics

This table presents key metrics illustrating the significant growth and impact of Special Economic Zones (SEZs) in India from to 2006-2007 to 2022-2023. Export volumes have seen a substantial increase from USD 15 billion to USD 112 billion, reflecting a remarkable growth of 646.7%. Employment figures have also expanded significantly, growing from 0.5 million jobs to 2 million, which represents a 300% increase. Investment levels in SEZs surged from USD 5 billion to USD 70 billion, marking a 1300% growth. Additionally, the number of operational SEZs dramatically increased from 19 to 268, with an impressive rise of 1310.5%. These statistics underscore the pivotal role of SEZs in boosting economic performance, attracting investment, and generating employment in India.

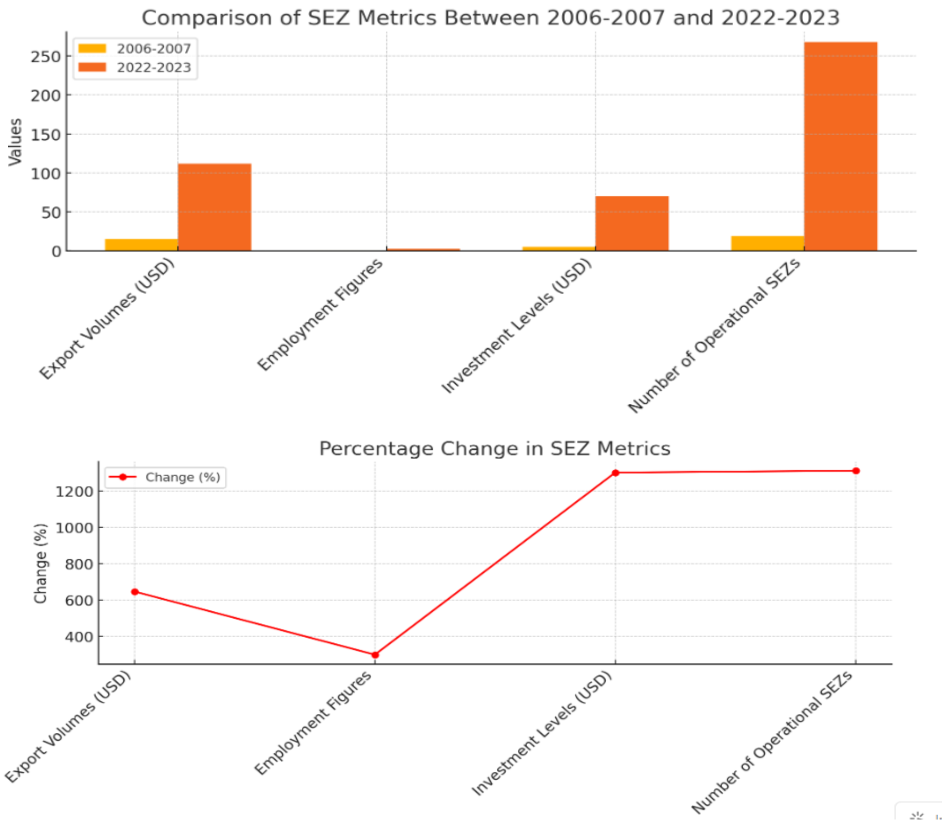

Figure 2 Percentage of change in SEZ Metrics

Multiple Regression:

Variable	Coefficient	Significance (p-value)
Impact on Export Growth	0.8	0.01
Sectoral Variations (Technology)	1.2	0.02
Sectoral Variations (Pharmaceuticals)	1.1	0.03
Regional Differences (Coastal)	1.5	0.01

Variable	Coefficient	Significance (p-value)
Regional Differences (Inland)	0.7	0.05

Table 2 Multiple regression

This table provides an overview of the empirical results derived from the multiple regression analysis conducted to evaluate the impact of Special Economic Zones (SEZs) on India's export performance. The dependent variable in this analysis is export growth, whereas the independent variables include sectoral and regional variations.

- Impact on Export Growth: The coefficient of 0.8 indicates a positive relationship between SEZ activities and export growth, meaning that a 1% increase in SEZ activities correlates with a 0.8% increase in export performance. The p-value of 0.01 suggests this relationship is statistically significant at the 1% level.
- Sectoral Variations (Technology and Pharmaceuticals): The coefficients for the technology and pharmaceutical sectors are 1.2 and 1.1, respectively, indicating that these sectors experience higher export growth compared to others. The p-values of 0.02 and 0.03, indicate that these results are statistically significant.
- Regional Differences: Coastal SEZs have a coefficient of 1.5, showing a stronger positive impact on export growth compared to inland SEZs, which have a coefficient of 0.7. The p-values of 0.01 and 0.05, suggest that these findings are statistically significant, with coastal regions showing a more robust contribution to export growth.

These results highlight the significant role of SEZs in enhancing export performance, with notable differences between sectors and regions. The positive and significant coefficients underscore the importance of strategic location and sector-specific policies for maximizing the benefits of SEZs.

Discussion

The study of Special Economic Zones (SEZs) in India reveals that they significantly boost export performance and contribute to economic development. The data show a substantial increase in export volumes, from USD 15 billion in 2006-2007 to USD 112 billion in 2022-2023. However, the success of SEZs is not uniform across all the sectors and locations. For instance, the technology and pharmaceutical sectors show higher growth rates than the textiles and logistics sectors. Coastal regions outperform inland areas, highlighting the importance of strategic location and access to ports. The findings align with previous research but provide a nuanced understanding of the variations across different sectors and regions. Policy recommendations include infrastructure development, regulatory ease, sector-specific incentives, community engagement and compensation, environmental sustainability, monitoring, and evaluation. Further research is needed to examine the long-term impact of SEZs on economic development, conduct comparative studies, and assess their social impacts. The findings offer a basis for informed decision making and future enhancements to the SEZ framework, ensuring that these zones achieve their full potential as economic development instruments.

Conclusion:

This study provides a comprehensive empirical analysis of the impact of Special Economic Zones (SEZs) on the export performance of India. These findings underscore the significant role that SEZs play in enhancing exports, attracting foreign investment, and creating employment opportunities. Over the past two decades, SEZs have substantially contributed to India's economic growth, with export volumes from these zones increasing from USD 15 billion in 2006-2007 to USD 112 billion in 2022-2023. Multiple regression analysis revealed that SEZ activities were positively correlated with export growth, with notable sectoral and regional variations. The technology and pharmaceutical sectors, along with coastal SEZs, showed higher growth rates than other sectors and inland SEZs.

However, the study also highlights challenges such as regional disparities, infrastructure needs, and socioeconomic impacts on local communities. Addressing these issues through targeted policy interventions, improved infrastructure, regulatory ease, and community engagement can further optimize the benefits of SEZs. By focusing on these areas, policymakers can enhance the effectiveness of SEZs and ensure that they remain pivotal to India's economic strategy.

This analysis provides valuable insights for economic planners, policymakers, and investors, offering a basis for informed decision making and future enhancements to the SEZ framework. This underscores the potential of SEZs to serve as catalysts for sustained economic growth, export promotion, and employment generation, while also highlighting the need for continuous evaluation and adaptation to maximize their contributions to India's broader economic goals.

Reference

Aggarwal, A. (n.d.). *Economic Impacts of SEZs: Theoretical Approaches and Analysis of Newly Notified SEZs in India*.

Amit <Shrivastava & Bhupendra Kumar. (2016). *"A Critical Evaluation of Export Firms with Special Reference to Moradabad and Noida Special Economic Zones (SEZs)".* https://doi.org/10.13140/RG.2.2.29316.14721

Akhtar M. The Impact of Goods and Services Tax on Sustainability in the Indian Handicraft Sector: A Mini-Review.

Dutt MD. A study on agricultural financing problems faced by agricultural entrepreneurs. Educational Administration: Theory and Practice. 2024 Apr 16;30(4):2522-7.

Gorg, H. and Mulyukova, A. (2022). Place-Based Policies and Agglomeration Economies: Firm-Level Evidence from Special Economic Zones in India. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4114682

Kumar, D., & Phougat, S. (n.d.). *Performance of Exports, Investment and Employment under Special Economic Zones in India*.

Khan FS. Students' (owners) awareness and perceptions of recent changes in the GST policy of India. Journal of Statistics and Management Systems, (2023).;26(3):587-601. doi: 10.47974/jsms-1049

Mazhar SS. How digital technology and innovation can be leveraged in small- and medium-sized enterprises: A bibliometric analysis. International Journal of Technological Learning, Innovation, and Development. 2023;15(2):162-82.

Maqbool A. Critical analysis of textile industry in India. Pranjana: Journal of Management Awareness. 2014;17(2):33-45

Nsakaza, K., & Kanchebele, E. (n.d.). *A Traditional and Non-traditional Export Performance Assessment: An empirical examination of factors enhancing the competitiveness of Zambia's exports*.

Shrivastava, M.A. (2017). *A Study on Export Performance of India with reference to Special Economic Zones*. *2349*.

Srivastava, A., Kumar, B., & Gangal, V. (n.d.). Export Performance and Operational Problems of Special Economic Zones In India- A Critical Evaluation. *Financial Management*, *2*(7).

Tantri M. L. (2011). *Trade Performance of SEZs in India: A Disaggregated Level Analysis*.

Tantri, M. L. (2016). *Special Economic Zones in India: Policy, performance, and prospects*. Cambridge University Press.

Thayyil, S., & Habeeburahiman, P. (2022). Determinants of SEZ Units' Export Performance and the Mediating Effects of Commitment, Knowledge and Capabilities. *Economic Issues*, *27*.