



# Factors Determining The Export Of Commercial Services From India Under Mode 1 (2005 to 2019)

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**Abstract:** Introduction of Mode 1, or Cross-Border Supply, highlights the significant role of service exports, particularly in IT, BPO, and consulting, in India's economy. With an 11.61% CAGR since 2005, India has emerged as a top seven global service exporter necessitating continued digital transformation and policy support. This study aims to analyze the growth trends of service exports between 2005-2022, compare India with selected East Asian, South Asian, and ASEAN neighbouring countries, examine growth determinants, and propose solutions for sector challenges. Utilizing secondary data from the WTO and World Bank, the study employs graphical analysis and empirical regression methods to assess India's service export performance, which improved from USD 52 billion in 2005 to over USD 300 billion in 2022. Key growth factors identified include digital transformation, cost-effectiveness, and increased demand for remote services post-COVID-19. Regression analysis shows a negative relation between Real Effective Exchange Rate (REER) and service exports, while GDP per capita and internet usage is associated positively with export growth. Despite challenges, India's service sector remains a major economic contributor and is crucial for future growth and competitiveness.

**Keywords:** Factors, Determining, Export , Commercial, Services

## Introduction:

Mode 1, or Cross-Border Supply, refers to the export of services between nations without physical movement of the supplier or customer, significantly benefiting India's service export strategy, particularly in IT, BPO, and consulting sectors. This model accounted for over \$325.3 billion in service exports in 2022-23, vital for foreign exchange reserves and economic growth. India's competitive edge lies in its skilled, cost-effective workforce, contributing to its global hub status for remote services and supporting the goal of \$1 trillion in service exports by 2030. The rapid growth of digital services, with an 11.61% CAGR since 2005, emphasizes the need to assess Mode 1 performance to boost up economic growth and address international competition. In 2023-24, India ranked among the top seven service exporters globally, with strong performance in IT and digital delivery, growing faster than South Asian and several ASEAN markets, necessitating continued digital transformation and policy support to sustain its progress in the global service landscape. Maintaining rapid economic growth, maintaining the stability of the external sector, and controlling foreign exchange profits all depend upon an analysis of the factors influencing Mode 1 service exports (cross-border supply such as IT/BPO) from India. It assists in identifying the critical factors required to preserve India's competitive advantage in international markets, including global demand, exchange rates, and digital infrastructure. Considering these aspects it is pertinent to analyse the following issues:

### Objectives of the study:

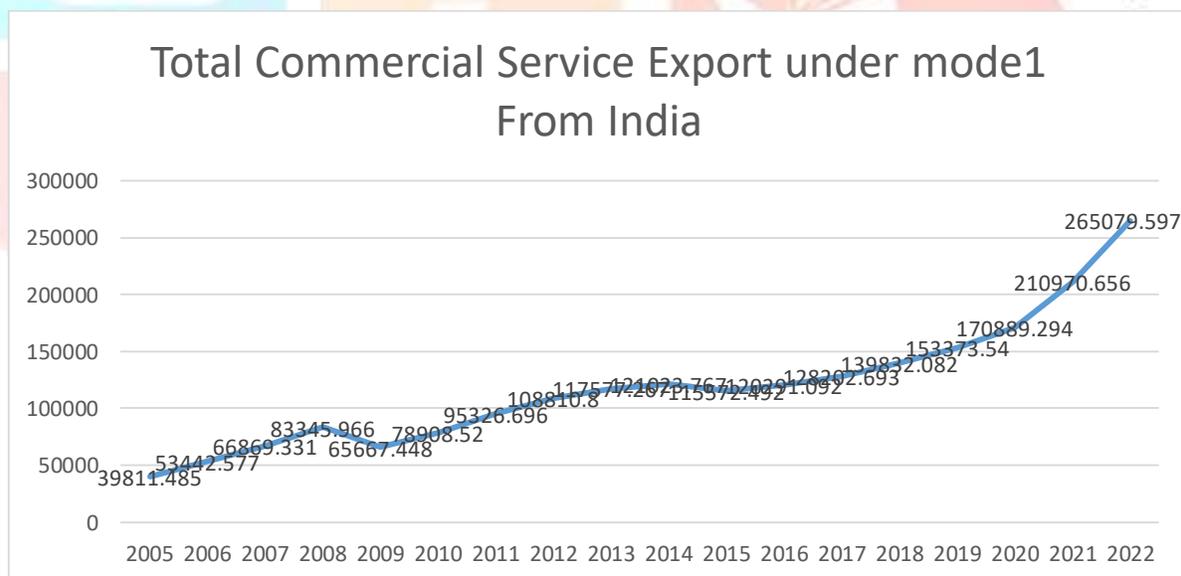
- 1.To analyse the trend of growth of commercial services export from India under mode 1 during 2005 to 2022.
- 2.To compare the performance of India with few neighbouring East Asian (China), South Asian(Afganistan, Bangladesh, Bhutan, Nepal, Pakistan, Srilanka, Myanmar, Maldives) and ASEAN (Malaysia, Indonesia, Myanmar, Philippines, Thailand, Vietnam ,Philippines)countries and independent island Mauritius .
- 3.To analyse the factors determining this pattern of growth of service export under mode 1.
- 4.To discuss the problems faced by this sector and suggest remedies.

### Datasource And Methodology:

In this paper secondary data from World Trade Organisation for commercial services export(Millions of US \$) and World Bank for data on GDP Per Capita(constant 2015 US\$) has been used. Using data for 2005 to 2022 graphical analysis and pictorial presentations have been made using Bar charts in order to portray the performance of service export from India under mode 1 and comparing India's performance with few neighbouring South Asian and ASEAN countries. Also empirical time series regression of commercial services export under mode1 upon Real Effective Exchange Rate(REER),GDP Per Capita(constant 2015 US\$) , Individuals using the Internet (% of population) and Fixed broadband subscriptions has been run for 2005 to 2019.Additionally ,theoretical analysis of the problems faced by services export under mode1 and their remedies have been discussed .MS EXCEL Software has been used extensively for empirical analysis of data and for making pictorial presentations.

### Discussion,Analysis and Results:

#### Analysis of the trend of growth of commercial services export from India under mode 1 during 2005 to 2022:



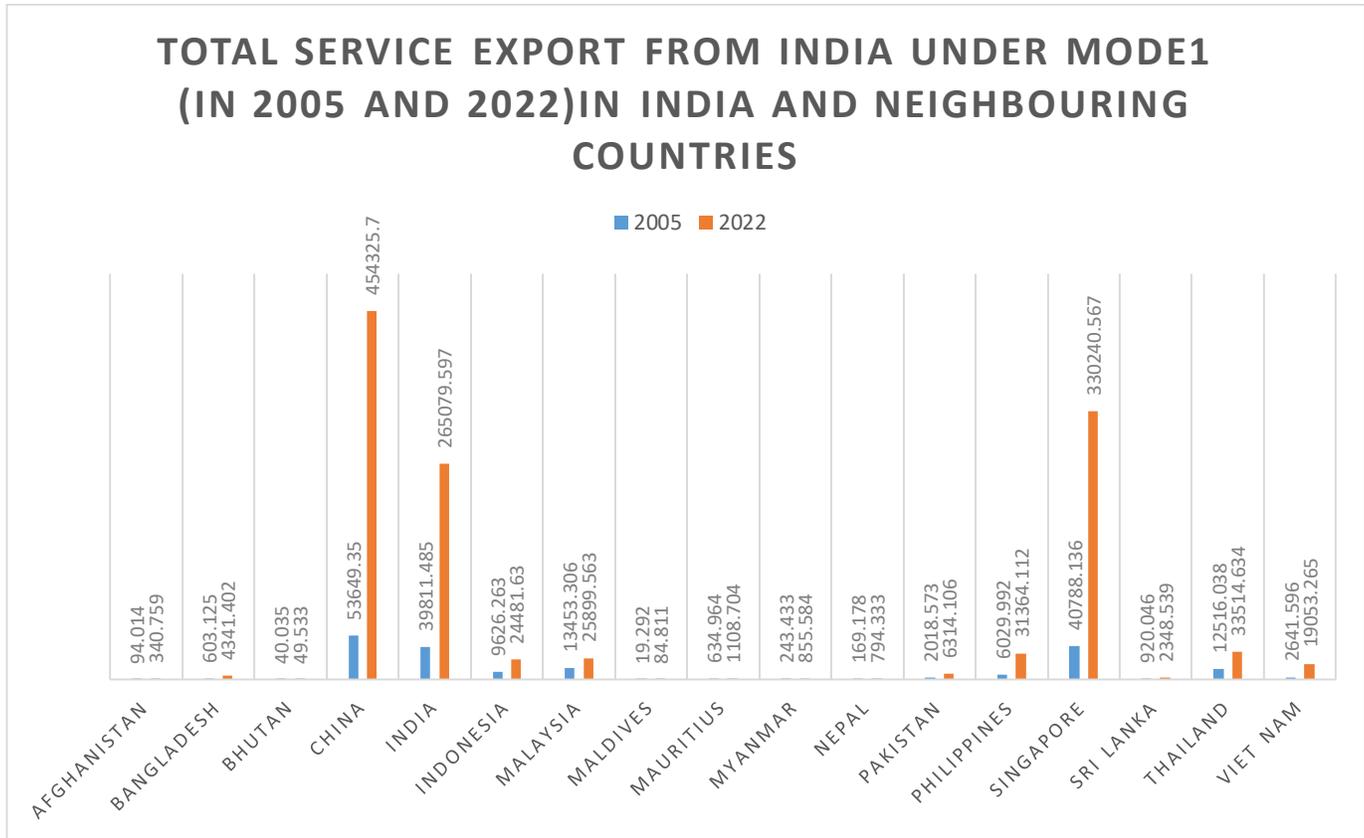
Datasource: World Trade Organisation

Graph 1:Total Commercial Service Export under mode1 From India

Mode 1 service exports from India, particularly in IT and BPO, witnessed rapid growth from USD 52 billion in 2005 to over USD 300 billion in 2022, increasing its global market share from under 2% to over 4%. The IT/ITeS sector, particularly TCI services, grew by 125% between 2012-2022 and led this trajectory. Additionally, "Other Business Services" like consultancy and accounting prospered due to global outsourcing. In spite of the pandemic's impact on physical services, digital Mode 1 services surged, strengthening remote work and digital adoption. Moreover, India's global share doubled and key markets like the U.S. and UK were benefited from enhanced connectivity and skilled labor availability. This growth in services helped India to maintain a trade surplus in services, balancing its goods trade deficit. Factors driving the rise include : Digital Transformation -

Cross-border service delivery was facilitated by improved digital capabilities and digital infrastructure, Cost-effectiveness and Talent Pool-Access to qualified, English-speaking specialists and resources at affordable prices, demand for Remote Services throughout the World-The COVID-19 epidemic dramatically increased demand for business and IT services.

**The performance of India with few neighbouring countries:** China, India and Singapore, Malaysia, Thailand have been the highest exporters of commercial services under mode 1 both in 2005 and 2022. India ranks second in this set of neighbouring East Asian, South Asian and ASEAN countries. Hence India's performance is satisfactory in services export under mode 1 compared with neighbouring countries of the world. These have been demonstrated in the following fig:



Datasource: World Trade Organisation

Graph2: Total Service Export From India Under Mode1 (in 2005 and 2022) in India and neighbouring countries

**Empirical Investigation of Factors determining export of commercial services from India:**

In order to analyse the causes or factors behind export of services from India under mode 1 (2005 to 2019) the following regression has been run:

$$EXPOSERV_t = a + b REER_t + c GDPPC_t + d INTERUSER_t + e BROAD_t + U_t \quad t=1,2,\dots,15$$

Where, EXPOSERV<sub>t</sub> = service export from India (millions of US \$) in year t

GDPPC<sub>t</sub> = GDP Per capita (constant 2015 US\$) in time t

REER<sub>t</sub> = Real Effective Exchange Rate at time t

INTERUSER<sub>t</sub> = Individuals using the Internet (% of population) at time t

BROAD t= Fixed broadband subscriptions at time t

Table 1:Regression Results

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.977478							
R Square	0.955464							
Adjusted R Square	0.930722							
Standard Error	8762.069							
Observations	15							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	5	1.48E+10	2.96E+09	38.61661	8.13E-06			
Residual	9	6.91E+08	76773849					
Total	14	1.55E+10						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	131087.1	65157.99	2.011834	0.075105	-16310.67	278484.7	-16310.67	278484.7
REER	-1296.52	797.9812	-1.62475	0.138661	-3101.681	508.6361	-3101.681	508.6361
GDPPC	32.90856	38.13534	0.862941	0.410575	-53.35967	119.1767	-53.35967	119.1767
INTERUSER	1542.946	1216.783	1.268054	0.236598	-1209.61	4295.5	-1209.61	4295.5
BROAD	0.002511	0.000985	2.549623	0.031214	0.000283	0.004739	0.000283	0.004739

Datasource: World Development Indicators, World Bank and World Trade Organisation.

Exports of goods and services generally decline when the Real Effective Exchange Rate (REER) rises. An increasing REER indicates that a country's currency is appreciating in real terms (adjusted for inflation) against a basket of its trading partners' currencies, thereby it makes its exports more expensive and less competitive in the global markets. Increasing GDP per capita in India is driving an increase in exports of services. With the services sector emerging as a key economic engine, accounting for more than 50% of the country's GDP and expanding by 9.1% in Financial Year 2026. Regression results indicate a negative association between REER and export of services. An increase in REER by 1 unit would lead to a reduction of service export under mode 1 by -0.001296\$. India's GDP per capita and service exports are strongly positively correlated, and the service sector is an important contributor to economic development, generation of high-value jobs, and foreign direct investment (FDI) inflows. Rising per capita income is strongly linked to the growth and development of modern services like IT, finance, and professional services, which have grown to significantly contribute over half of India's Gross Value Added (GVA). Regression results indicate a positive association between GDP Per capita and export of services. An increase in GDP Per capita (constant 2015\$) by 1 \$ would lead to an increase in service export under

mode 1 by 0.0000329\$. In India, increased internet adoption has a strong positive association with service exports, particularly within the Information and Communication Technology (ICT) sector. With internet usage percentage of the population increasing steadily, rising digital connectivity directly facilitates the growth of India's services sector, which has achieved a CAGR of (9.2%) (2005–2024), placing it among the top worldwide services exporters. Regression results indicate a positive association between Individuals using the Internet (% of population) and export of services. An increase in Individuals using the Internet (% of population) by 1 \$ would lead to an increase in service export under mode 1 by 0.001543\$. India's service exports are strongly positively associated with fixed broadband subscriptions, especially in the services like financial, telecommunication, and IT-BPM sectors. Enhanced digital infrastructure, which is supported by rising broadband adoption, directly leads to enhancement of the efficiency and volume of services exported, helping to advance India's economic growth and balance of trade. Regression results indicate a positive association between fixed broadband subscriptions and export of services. An increase in fixed broadband subscriptions by 1 \$ would lead to an increase in service export under mode 1 by 0.00000002511\$.

### **Key challenges faced by these determinants of export of services from India and their remedies:**

The Real Effective Exchange Rate (REER) in India presents significant challenges to boosting Mode 1 service exports due to currency appreciation, high inflation, regulatory complexities and inadequate digital infrastructure. An overvalued currency and elevated inflation make Indian services such as IT and consulting more expensive globally. Additional challenges include unreliable supply of energy and poor internet connectivity, particularly in non-metro areas, affecting cross-border service delivery. Furthermore, smaller firms face difficulties in maintaining quality and meeting international standards, along with increasing regulatory complexities for data privacy and security issues. Problems with data reliability in REER calculations increase the risk factors for exporters. To address these issues, the government has implemented various measures like 100% FDI liberalization in certain services, set up Special Economic Zones (SEZs), and enhanced Global Capability Centres (GCCs) to encourage service exports.

Low GDP per capita in India limits export service advancements because of limited investment in skills and infrastructure. Major barriers include weak infrastructure, bottlenecks in skill development, low domestic purchasing power, income inequality hindering service sector growth, and external demand volatility. Although GDP per capita has increased, it remains below the world average, constraining fiscal capacity for elevating service export quality.

Low GDP per capita in India restricts Mode 1 service exports due to inadequacy in digital infrastructure investment and restricted access to advanced education, thereby creating a skill gap and high compliance costs. Important challenges include a disparity in digital infrastructure, lack of skilled workforce, sectoral concentration mainly in IT/BPO, high operational costs, and regulatory ambiguities. To boost service exports, India should utilize its young population and promote skill development to enhance productivity in the services sector.

Key issues confronted by Indian individuals in Mode 1 service exports as far as usage of internet is concerned include a rural-urban digital divide, with 16.7% of rural households lacking access to internet facilities. Other barriers include high transaction costs, inadequate digital infrastructure, cybersecurity issues, and competition from low-cost countries. Critical issues impeding growth include discrepancies in internet quality and access, a skills gap in advanced digital capabilities, regulatory barriers related to data security, lack of trust in digital payments and language barriers in the world market. To address these problems, improvements in digital infrastructure and digital literacy initiatives, technical training are crucial for enhancing the export-oriented workforce.

Fixed broadband in India faces major challenges in supporting Mode 1 service exports due to low household penetration (7.5%), inadequate infrastructure and high infrastructure costs, and regulatory barriers. Key issues include the limited reach of fixed broadband as compared to mobile, significant upfront costs for fiber infrastructure, and the necessity for improved Quality of Service (QoS) to achieve a target speed of 100 Mbps by 2030. The rural-urban digital disparities further complicate the situation, creating a regional divide that affects talent availability for remote services. Addressing these challenges through infrastructure sharing, policy reforms like the Telecommunications Act 2023, and investments in high-speed optical fiber are necessary for improving competitive service exports.

## Conclusion:

Mode 1 service exports—in which services are exported across borders but providers and customers stay in their respective locations—are crucial in India's Viksit Bharat 2047 strategy. These exports, which are projected to reach \$372.3 billion in 2024, substantially boost up foreign exchange profits, strengthen India's competitiveness internationally, and stimulate economic growth by providing IT and digital services. Creating high-value foreign revenue, building digital infrastructure, providing qualified young people access to knowledge-based jobs without requiring migration, and assisting India's strategic integration into worldwide value chains are some of Mode 1's main accomplishments. It also expands exports beyond products, fostering economic stability and establishing India as a worldwide center for services. India's position as the fastest economy with the highest rate of growth in the world depends upon its ability to export services using Mode 1 (cross-border supply, such as IT/BPO).

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