



Industry Report on Indian IT and Renewable Energy Segment

August 2026

© Dun & Bradstreet All rights reserved.

D&B and D-U-N-S are registered trademarks of Dun & Bradstreet.

All other product names and brand names are trade names, service marks, trademarks, or registered trademarks of their respective owners.

Disclaimer

*This study has been undertaken through extensive secondary research, which involves compiling inputs from publicly available sources, including official publications and research reports. Estimates provided by Dun & Bradstreet (“**Dun & Bradstreet**”) and its assumptions are based on varying levels of quantitative and qualitative analysis including industry journals, company reports and information in the public domain.*

Dun & Bradstreet has prepared this study in an independent and objective manner, and it has taken all reasonable care to ensure its accuracy and completeness. We believe that this study presents a true and fair view of the industry within the limitations of, among others, secondary statistics, and research, and it does not purport to be exhaustive. The results that can be or are derived from these findings are based on certain assumptions and parameters/conditions. As such, a blanket, generic use of the derived results or the methodology is not encouraged.

Forecasts, estimates, predictions, and other forward-looking statements contained in this report are inherently uncertain because of changes in factors underlying their assumptions, or events or combinations of events that cannot be reasonably foreseen. Actual results and future events could differ materially from such forecasts, estimates, predictions, or such statements.

The recipient should conduct its own investigation and analysis of all facts and information contained in this report is a part and the recipient must rely on its own examination and the terms of the transaction, as and when discussed. The recipients should not construe any of the contents in this report as advice relating to business, financial, legal, taxation or investment matters and are advised to consult their own business, financial, legal, taxation, and other advisors concerning the transaction.

Table of Contents

Global Macroeconomic Scenario	7
Global Economic Overview	7
Historical and Projected GDP Growth	8
Global Economic Outlook	9
Global Growth Projection	10
India Macroeconomic Analysis.....	13
Historical GDP and GVA Growth Trend.....	14
Annual and Quarterly: Investment & Consumption Scenario	17
Private Consumption Scenario	18
Key Growth/Demographic Drivers for Economic Growth	20
Government focus on infrastructure development	20
Development of Domestic Manufacturing Capability.....	21
Strong Domestic Demand.....	22
Increasing Urbanization.....	24
Rural vs. Urban Working Population by Age Group.....	25
Foreign Direct Investment Trend in India.....	26
Indian Information Technology Industry	30
Market Size & Historical Growth Trend	30
Market Segmentation	30
Export Revenue.....	32
Domestic IT Spending in India	34
Market Scenario.....	34
Private Sector IT Spending Trends in India.....	35
Digital Transformation Initiatives.....	36
IT Infrastructure Industry	37
Key Segments.....	37
IT Infrastructure Management Services	40
Transition in IT Infrastructure Industry	41

Emerging Opportunities	43
India's Emergence as a Global Capability Center (GCC) Hub.....	46
Evolving Data security / Cybersecurity Landscape in India.....	50
Government Spending on Information Technolog.....	51
Government Flagship Digital Policies.....	53
Impact on IT infrastructure.....	54
IT Infrastructure Modernization in Public Education Sector	56
Current Scenario.....	56
Government Schemes Promoting ICT Infrastructure in Education Sector	56
STEM Lab Infrastructure in Indian Education Sector	59
Current Scenario.....	59
Infrastructure Components	59
Key Drivers.....	60
Key Challenges.....	61
Prospects / Outlook	61
Atal Tinkering Labs (ATL)	62
Impact of Atal Tinkering Labs (ATL) in India.....	62
Challenges Faced by ATLs	63
Prospects / Outlook	64
IT Infrastructure Modernization Initiatives.....	64
IT Infrastructure Modernization in BFSI Domain.....	66
IT Infrastructure Modernization Initiatives.....	67
IT Infrastructure Modernization in Government Service Delivery	69
UIADI Biometric Upgrade.....	69
Point of Sale (PoS) Mandate for Direct Benefit Schemes.....	69
Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDSA).....	70
Data Centre Policy 2020.....	70
Digital Personal Data Protection (DPDP) Act.....	71
Growth Forecast.....	73

Threats & challenges Impacting the IT infrastructure Solution.....	74
Threats & challenges Impacting the IT Managed Services.....	75
Competitive Landscape	77
Key Factors Shaping Competition.....	79
Key Player Profiles	81
Solar EPC Industry	88
Renewable Energy Landscape in India	88
Solar Power Generation Scenario in India	88
Solar Power: Technologies Deployed.....	90
Value Chain of Solar Parts	93
Solar Cell & Module Scenario.....	94
Foreign Trade: Export & Import Scenario.....	95
Solar PV module	96
Key Demand Drivers: Analysis of factors driving the growth in India.....	98
Growth Forecast: Installed Capacity in Solar Power Generation Segment.....	100
Solar EPC Business Model.....	102
Solar EPC Business Model	102
Application Basis	103
Basis of Project Size	103
EPC Services in the Solar Power Generation Segment	104
EPC Business Model and Revenue Streams	104
Key Growth Drivers: Analysis of factors driving the growth in India.....	106
Key Success Factors for EPC Companies in India	109
Challenges Faced by EPC Players in India.....	111
Outlook for the EPC Market.....	113
Battery Energy Storage Systems (BESS).....	114
Type of battery chemistry.....	115
Type of BESS.....	116
Current scenario of BESS.....	117

Growth Scenario of BESS.....	118
Analysis of key factors driving BESS demand in India.....	119
Growth of energy storage system (installed capacity) in India.....	120
Key Threats & Challenges Impacting BESS.....	121
Key Threats & Challenges Impacting Renewable Energy PPA.....	122
Armee Infotech	124
Profile	124
Financial Performance	130
Rural India.....	131
Payment Devices.....	134
Data Migration.....	135
Experience Zones.....	138

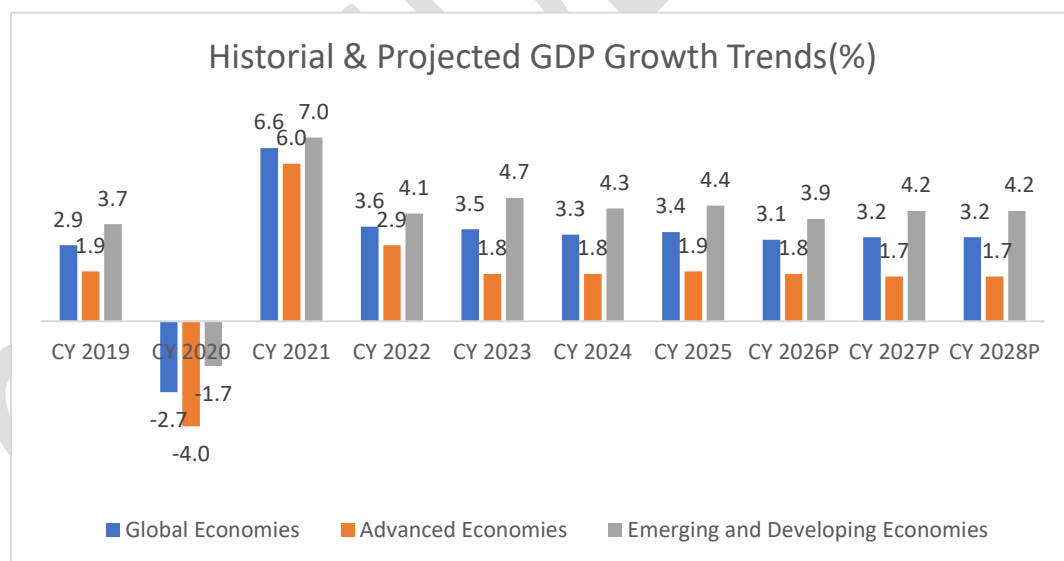
CONFIDENTIAL

Global Macroeconomic Scenario

Global Economic Overview

According to World Economic Outlook, global growth is projected at 3.1% in 2026 and at 3.2% in 2027 and 2028, slower than the recent pace of about 3.4% in CY 2024–25 and is expected to settle at approximately that rate over the medium term, below the historical average of 3.7% during 2000–19. The forecast for 2026 has been revised downward by 0.2 percentage point, while the forecast for 2027 and 2028 remains unchanged compared with the January 2026 WEO Update. Global headline inflation is expected to rise to 4.4% in 2026 and decline to 3.7% in 2027, reflecting upward revisions for both years.

The conflict involving US, Israel and Iran is increasingly functioning as a global supply and confidence shock. The International Energy Agency (IEA) describes the current situation as the largest oil supply disruption on record, with flows through the Strait of Hormuz reduced to a trickle and the resulting effects spreading across refined fuels and liquefied natural gas (LNG). At the same time, aviation disruptions and elevated risk premia are weakening services activity and increasing uncertainty around investment decisions. A significant share of global energy flows through the Strait of Hormuz, and shipping disruptions and insurance constraints are therefore translating directly into higher landed costs, supply chain delays, and greater output risks for energy-intensive manufacturing. As a result, the policy environment has increasingly become challenging, while growth support is required but renewed cost-push inflation across energy, freight, and eventually food inputs is limiting the scope for faster monetary easing.



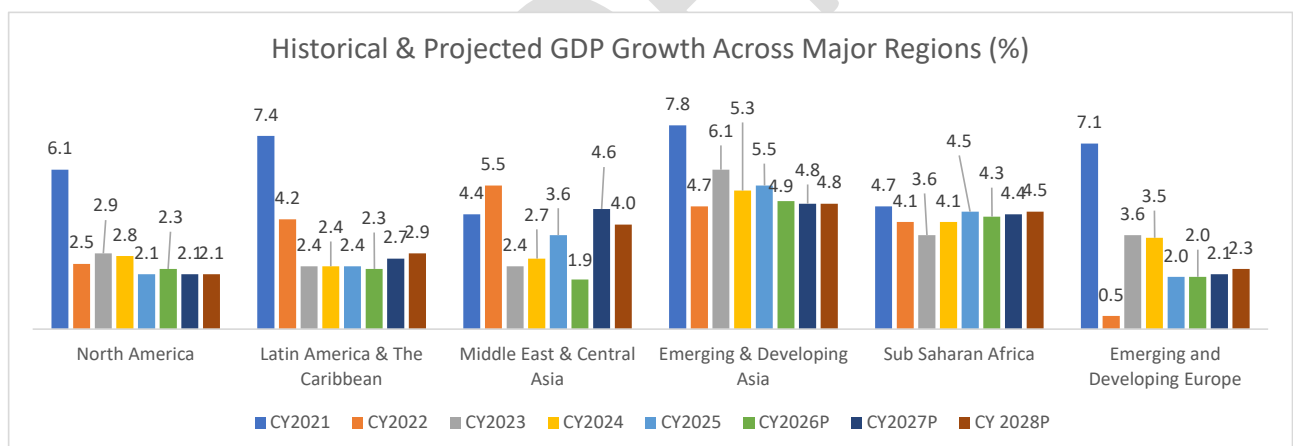
Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict economic criteria and has evolved over time. It comprises 40 countries in the Advanced Economies category, including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada) and selected Eurozone members (Germany, Italy, France, etc.). The group of emerging and developing economies (156) comprises all economies not classified as Advanced Economies (e.g., India, China, Brazil, Malaysia).

Historical and Projected GDP Growth

GDP growth across major regions showed a mixed trend during 2024–25. While growth in several regions—including Middle East & Central Asia, Emerging and Developing Asia, Sub-Saharan Africa as well as Latin America and the Caribbean—is expected to slow further in 2026, performance remains uneven across geographies.

In the Middle East and Central Asia, economic growth is projected to decline from **3.6% in 2025** to **1.9% in 2026**, before recovering to **4.6% in 2027** and **4.0% in 2028**, reflecting the region's direct exposure to the conflict and the anticipated rebound thereafter. For commodity-exporting economies directly affected by the conflict, reduced production and export activity are expected to result in a significant downward revision to 2026 GDP growth projections.

Growth in emerging and developing Asia is projected to moderate from **5.5% in 2025** to **4.9% in 2026** and is further estimated to grow at **4.8% in 2027 and 2028**. Within the region, China's 2026 growth forecast has been revised upward by **0.2 percentage point** relative to the October estimate, to **4.4%**, despite a **0.1 percentage point downward revision** from January. This upward adjustment reflects the impact of lower effective U.S. tariff rates on Chinese goods, along with stimulus measures that are expected to offset the negative effects of the shock arising from the Middle East conflict. However, China's growth is projected to slow to **4.0% in 2027**, as structural headwinds continue to weigh on the economy, including the prolonged slowdown in the housing sector, a shrinking labor force, declining returns on investment, and weaker productivity growth.



Source- IMF World Economic Outlook, April 2026

In Latin America and the Caribbean, economic growth is projected to remain broadly stable at 2.3% in 2026 before strengthening to 2.7% in 2027 and 2.9% in 2028. The effects of the Middle East conflict across the region are expected to be uneven, with smaller economies likely to experience a more pronounced negative impact due to their relatively greater vulnerability to external shocks.

Growth in sub-Saharan Africa is projected to remain relatively stable at 4.3% in 2026 and 4.4% in 2027 and 4.5% in 2028. However, this regional outlook masks significant variation across countries, with some economies expected to face more pronounced challenges than others. In particular, oil-importing and non-resource-intensive economies are likely to be adversely affected by the conflict in the Middle East, as heightened external pressures may weigh on economic activity and weaken growth prospects. In emerging and developing Europe, economic growth is expected to slow sharply to 2.0%

in 2025 and recover only marginally thereafter, with the region projected to expand at an average rate of 2.0% in 2026, 2.1% in 2027 and 2.3% in 2028.

Global Economic Outlook

The conflict between Israel/the United States and Iran, which began in February, has developed into a global shock to transport, trade, and security planning. As a result, periodic airspace closures across Israel and parts of the Gulf, together with severe disruption to shipping through the Strait of Hormuz, have affected the movement of oil, oil products, and LNG. Consequently, businesses have faced longer and less reliable supply lines, higher freight and insurance costs, and more frequent “stop-go” operating conditions.

The near-term growth outlook has softened as the conflict is affecting both demand and costs. Disruption to the oil channel is coinciding with pressure on the non-oil outlook as travel and services weaken and risk premia rise. Airspace disruption has increased operating costs and reduced travel reliability, while higher jet fuel costs have added to pressure on carriers and freight forwarders.

Investment conditions have also tightened as higher regional risk premia have increased insurance, shipping, hedging, and working capital costs. At the same time, logistics disruption and higher input costs are raising inflation risks. Fertilizer and related input disruption is also creating a lagged risk to food prices.

Asia-Pacific: In Asia-Pacific, the conflict has created sustained stress for business continuity. Even with fighting paused, energy availability, shipping disruption, and insurance costs are expected to continue weighing on operations over the next quarter. Oil prices remain well above January levels despite easing from March peaks, while war-risk insurance, tighter tanker availability, and rerouting costs remain elevated. As a result, several fuel-importing economies—including Japan, South Korea, India, and parts of Southeast Asia—have faced power-conservation measures and fuel rationing, increasing the risk of operational downtime in energy-intensive sectors.

Shipping and supply chains are also facing second-round effects. Many Asia–Europe shipments have been diverted via the Cape of Good Hope, thereby extending lead times by 10–14 days. Although some routes have reopened, schedules remain compressed and insurers remain cautious, which has increased delivery deadline risk across manufacturing, particularly in chemicals, electronics, and pharmaceuticals. Input volatility and fertilizer disruption are also adding to inflation risks and thereby complicating the policy outlook.

Latin America: In Latin America, the U.S.-Israel-Iran conflict has increased energy market pressures, with higher Brent crude prices raising input costs and inflation risks across the region. Consequently, net hydrocarbon exporters such as Brazil, Colombia, and Ecuador are benefiting from stronger external balances, while net energy importers—including Panama, Chile, and much of Central America—are facing higher import costs. Elevated fertilizer prices are also weighing on agricultural output and margins, including in Brazil and Argentina. In response, governments have introduced fuel subsidies and price controls.

Middle East & North Africa: In the Middle East and North Africa, the conflict continues to affect the region directly, with many countries facing missile and drone attacks from Iran in response to attacks by the United States and Israel on Iran. In the short term, economic growth is expected to slow sharply as exports decline, uncertainty constrains spending, and governments delay investment initiatives. The reduction in food imports is also expected to significantly affect

countries with limited domestic production capacity. Bahrain, Qatar, and Kuwait remain highly dependent on imports through the Strait of Hormuz and therefore face risks of food shortages and concerns regarding social stability if disruption persists.

Sub-Saharan Africa: In Sub-Saharan Africa, the conflict continues to disrupt energy and fertilizer supply chains, thereby keeping the region under significant external pressure. Higher global oil prices are sharply rising fuel and transport costs for import-dependent economies such as Kenya, Uganda, Ethiopia, and Ghana. Policy responses have varied across the region. Ethiopia introduced emergency fuel subsidies in mid-March to contain domestic price increases, while Kenya is experiencing stronger pass-through from higher fuel costs, which is weighing on aviation, logistics, and export activity.

Global Growth Projection

Growth in advanced economies is projected at 1.8% in 2026 and 1.7% in 2027 and 2028, while the overall impact of the Middle East conflict is expected to remain modest, lowering 2026 growth by 0.2 percentage point relative to the pre-conflict forecast. This limited effect reflects positive terms-of-trade gains in the United States and stronger growth momentum, supported by government measures, in Japan, whereas more significant negative effects are expected mainly in net energy-importing economies, including the euro area and the United Kingdom. In the United States, growth is projected at 2.3% in 2026 and 2.1% in 2027 and 2028, with fiscal policy and the lagged effects of monetary easing in 2025 continuing to support activity, even as higher trade barriers since April 2025 weigh on growth. The 0.1 percentage point downward revision from the January 2026 WEO Update reflects a small negative effect from the war, but this is partly offset by a rebound following the end of the 2025 federal government shutdown, along with stronger productivity growth and positive carryover effects. Although the International Emergency Economic Powers Act (IEEPA) ruling may reduce tariff-related fiscal revenues, its impact on the fiscal balance and activity is expected to remain limited and spread over the forecast horizon. Growth in 2027 is expected to remain solid, supported by tax incentives, including those for corporate investment under the One, Big, Beautiful Bill Act (OBBBA), while technology-driven momentum is projected to moderate and productivity growth is expected to gradually converge toward historical norms.

Growth in emerging market and developing economies is projected to slow to 3.9% in 2026 before recovering to 4.2% in 2027 and 2028, while the Middle East conflict is expected to have a greater impact on this group than on advanced economies, reducing 2026 growth by 0.3 percentage point relative to the pre-conflict forecast. In emerging and developing Asia, growth is expected to moderate from 5.5% in 2025 to 4.9% in 2026 and 4.8% in 2027 and 2028. Within the region, China's 2026 growth forecast has been revised upward to 4.4%, as lower effective U.S. tariffs and stimulus measures offset the impact of the conflict, although growth is projected to slow to 4.0% in 2027 as structural headwinds intensify. India's growth outlook has also improved, with growth revised upward to 7.6% in 2025 and projected to remain at 6.5% in 2026, 2027 and 2028, supported by strong carryover effects and lower additional U.S. tariffs on Indian goods. Meanwhile, several South and Southeast Asian economies are expected to face weaker domestic demand due to lower tourism and remittance inflows, while the Philippines has seen a sharp downward revision for 2026.

In the Middle East and Central Asia, growth is projected to decline from 3.6% in 2025 to 1.9% in 2026, before rebounding to 4.6% in 2027 and 4.0% in 2028, reflecting the region's direct exposure to the conflict. The downturn is expected to be most severe among affected commodity exporters, particularly Bahrain, Iran, Iraq, Kuwait, and Qatar, while the impact

is expected to be less severe in other economies. Accordingly, Iran's economy is projected to contract by (-) 6.1% in 2026, before rebounding to 3.2% in 2027 and moderating to 1.5% in 2028. By contrast, Saudi Arabia's growth is projected at 3.1% in 2026, rising to 4.5% in 2027 before easing to 3.6% in 2028. In sub-Saharan Africa, growth is expected to remain broadly stable at 4.3% in 2026, 4.4% in 2027, and 4.5% in 2028, although oil-importing economies are likely to face greater pressure, while Nigeria and South Africa are expected to record moderate but gradually improving growth profiles. In Latin America and the Caribbean, growth is projected at 2.3% in 2026, 2.7% in 2027, and 2.9% in 2028, with Brazil expected to benefit modestly in the near term from its position as a net energy exporter, while Mexico is projected to recover gradually to 1.6% in 2026, 2.2% in 2027, and 2.1% in 2028.

In emerging and developing Europe, the sharp slowdown in growth to 2.0% in 2025 is expected to reverse only marginally, with the region projected to expand at an average rate of 2.0% in 2026, 2.1% in 2027, and 2.3% in 2028. Within the region, Russia's 2026 growth forecast has been revised upward by 0.3 percentage point relative to January, to 1.1%, as higher commodity prices are expected to support activity. This momentum is projected to continue, with growth remaining at 1.1% in 2027 before moderating slightly to 1.0% in 2028. By contrast, Türkiye's 2026 growth forecast has been revised downward by 0.8 percentage point relative to the January 2026 WEO to 3.4%, as weaker-than-expected growth in 2025 and higher oil and gas prices are expected to weigh on activity.

Key factors impacting Global Macroeconomic landscape

- Geopolitics continues to constitute a major source of global macroeconomic and business risk. The Russia–Ukraine war remains a persistent driver of instability, as Russia has intensified large-scale missile and drone attacks on Ukrainian cities and infrastructure, while Ukraine has stepped up strikes on Russian ports, refineries, and export infrastructure, reportedly contributing to a reduction in Russian oil output in April. The Israel–Iran–U.S. confrontation has emerged as the most significant near-term external shock to the global economy, with the IMF warning that disruptions to the Strait of Hormuz and regional energy infrastructure could materially weaken global growth and raise inflation; under its April 2026 reference forecast, global growth has been lowered to 3.1% and inflation raised to 4.4%, with materially worse outcomes under prolonged disruption scenarios. In parallel, the Pakistan–Afghanistan border conflict remains a significant regional flashpoint, although China-mediated talks are seeking to secure a ceasefire and reopen border crossings after months of cross-border attacks and trade disruption. At the same time, U.S. strategic activism continues to influence regional risk perceptions: Washington has removed sanctions on Venezuela's interim leadership and deepened engagement with Caracas, tensions over Greenland have re-emerged amid renewed U.S. rhetoric and ongoing diplomatic discussions with Denmark and Greenland, and U.S.–Nigeria security cooperation has continued to deepen in response to regional instability and counterterrorism concerns. In addition, resource nationalism and strategic competition over rare earths and other critical minerals have become increasingly operational concerns rather than distant strategic risks. The IEA's April 2026 assessment notes that demand for magnet rare earths has doubled since 2015 and is projected to increase by more than 30% by 2030, while supply chains remain highly concentrated, with China accounting for around 60% of mined output, more than 90% of refining, and nearly 95% of permanent magnet production, thereby heightening global exposure to export controls, supply concentration, and industrial policy interventions

- The period of relatively frictionless trade supported by multilateral liberalisation and free trade agreements is increasingly giving way to regionalisation, nearshoring, friend-shoring, and diversification of production networks. Rising tariffs, policy uncertainty, and strategic realignment are creating a more fragmented trade environment and raising the premium on resilience over pure efficiency
- Technology adoption and sustainability have become core strategic priorities. Organizations are advancing digital transformation by embedding AI, automation, and cybersecurity into their operations to enhance productivity and safeguard critical assets. AI adoption is emerging as a visible driver of optimism, particularly within the information and communications sectors. Growth in cloud computing, streaming, IoT, and AI and Advancements in hardware and cooling technologies aim to reduce energy consumption and improve performance is driving the need for more powerful and scalable data centres.

CONFIDENTIAL

India Macroeconomic Analysis

The global economy is expected to navigate a more challenging environment as it enters CY 2026. According to the IMF's World Economic Outlook (April 2026), global growth is projected to moderate from **3.4% in CY 2025 to 3.1% in CY 2026**, reflecting weaker economic momentum across several major economies, persistent geopolitical uncertainties, and the lingering effects of global trade disruptions. Growth in advanced economies remains subdued, with the United States expected to expand at a modest pace of around **2.3% in CY 2026**, while China is projected to witness a gradual slowdown to **4.4% in CY 2026 and 4.0% thereafter**, highlighting structural challenges in the world's second-largest economy.

Country	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026 P	CY 2027 P	CY 2028P
India ¹	-5.8%	9.7%	7.6%	9.2%	6.5%	7.6%	6.5%	6.5%	6.5%
China	2.3%	8.6%	3.1%	5.4%	5.0%	5.0%	4.4%	4.0%	4.0%
United States	-2.2%	6.1%	2.5%	2.9%	2.8%	2.1%	2.3%	2.1%	2.1%
Japan	-4.2%	2.7%	0.9%	1.4%	-0.2%	1.2%	0.7%	0.6%	0.6%
United Kingdom	-10.3%	8.6%	4.8%	0.4%	1.1%	1.3%	0.8%	1.3%	1.6%
Russia	-2.7%	5.9%	-1.4%	4.1%	4.3%	1.0%	1.1%	1.1%	1.0%
Germany	-4.1%	3.9%	1.8%	-0.9%	-0.5%	0.2%	0.8%	1.2%	1.2%

Source: World Economic Outlook, April 2026

Against this backdrop, **India continues to stand out as one of the fastest-growing major economies globally.**

The country's growth estimate for CY2025 has been revised upward to **7.6%**, supported by robust domestic demand, resilient investment activity, strong services-sector performance, and better-than-expected momentum during the latter half of the fiscal year. Looking ahead, GDP growth is projected to remain healthy at **6.5% during CY2026 and CY2027**, underpinned by favorable demographics, rising infrastructure investments, expanding manufacturing capabilities, and continued policy support. India's relative resilience assumes greater significance amid a global landscape characterized by slowing growth in major economies such as China, Germany, Japan, and the United Kingdom. Furthermore, while geopolitical tensions, including the Middle East conflict, are expected to weigh on tourism and remittance flows across several Asian economies, India remains comparatively insulated due to its large domestic consumption base and diversified growth drivers. The moderation in proposed U.S. tariffs on Indian goods has also provided a supportive tailwind for exports and business confidence.

Overall, the divergence between India's sustained growth trajectory and the slowing outlook for several large economies reinforces the country's attractiveness as a preferred destination for global capital, strategic investment, and long-term business expansion. As global investors increasingly seek growth opportunities in a fragmented economic environment,

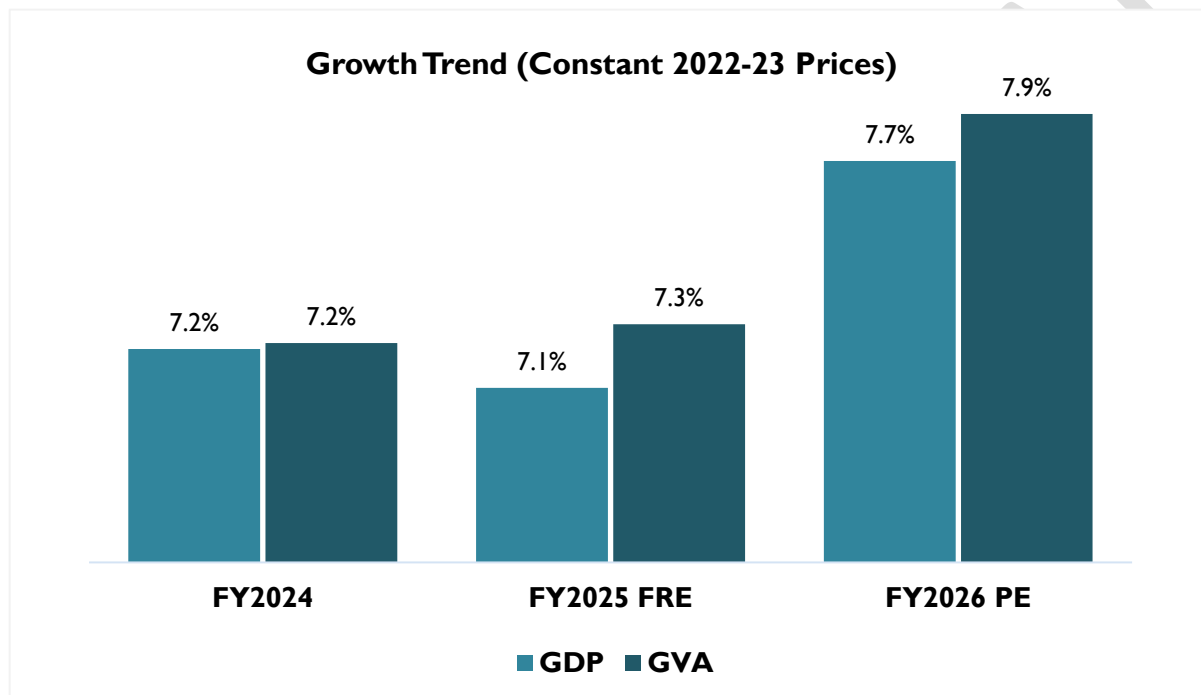
¹ For India, data and forecasts are presented on a fiscal year basis, and GDP from 2022 onward is based on GDP at market prices with fiscal year 2022/23 as a base year

India is well positioned to benefit from structural shifts in supply chains, digital transformation, and ongoing industrialization trends.

Historical GDP and GVA Growth Trend

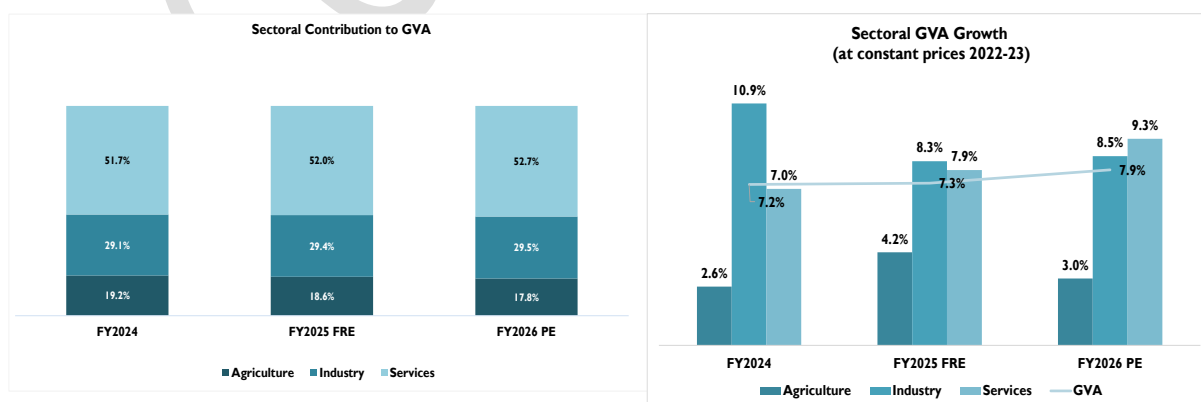
As per Provisional Estimates, India Real GDP (GDP at constant prices) for FY 2025–26 is estimated to reach INR 323.12 lakh crore, compared to the First Revised Estimate (FRE) of INR 299.89 lakh crore for FY 2024–25. This represents a growth rate of 7.7% in 2025–26, higher than the 7.1% growth recorded in 2024–25.

Similarly, Real GVA for FY 2025–26 is estimated to reach INR 294.91 lakh crore, up from INR 273.36 lakh crore in FY 2024–25. This indicates a growth rate of 7.9%, compared with the 7.3% growth achieved in the previous year.



Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics: FY2025, FRE is First Revised Estimate; PE is Provisional Estimates

Sectoral Contribution to GVA and Annual Growth Trend



Source: Ministry of Statistics & Programme Implementation (MOSPI), CMIE Economics Outlook

Sectoral analysis of GVA reveals that the industrial sector experienced steady growth momentum in FY 2026, recording a 7.9% y-o-y growth against 7.3% year-on-year growth in FY 2025. Within the industrial sector, growth moderated across sub-sectors with mining, and construction activities growing by 5.15%, and 7.36%, respectively in FY 2026, compared to 11.69%, and 7.30% in FY 2025. Growth in the utilities sector too moderated to 1.74% in FY 2026 from 2.87% in the previous year. The industrial sector's contribution to GVA increased marginally from 29.4% in FY 2025 to 29.5% in FY 2026.

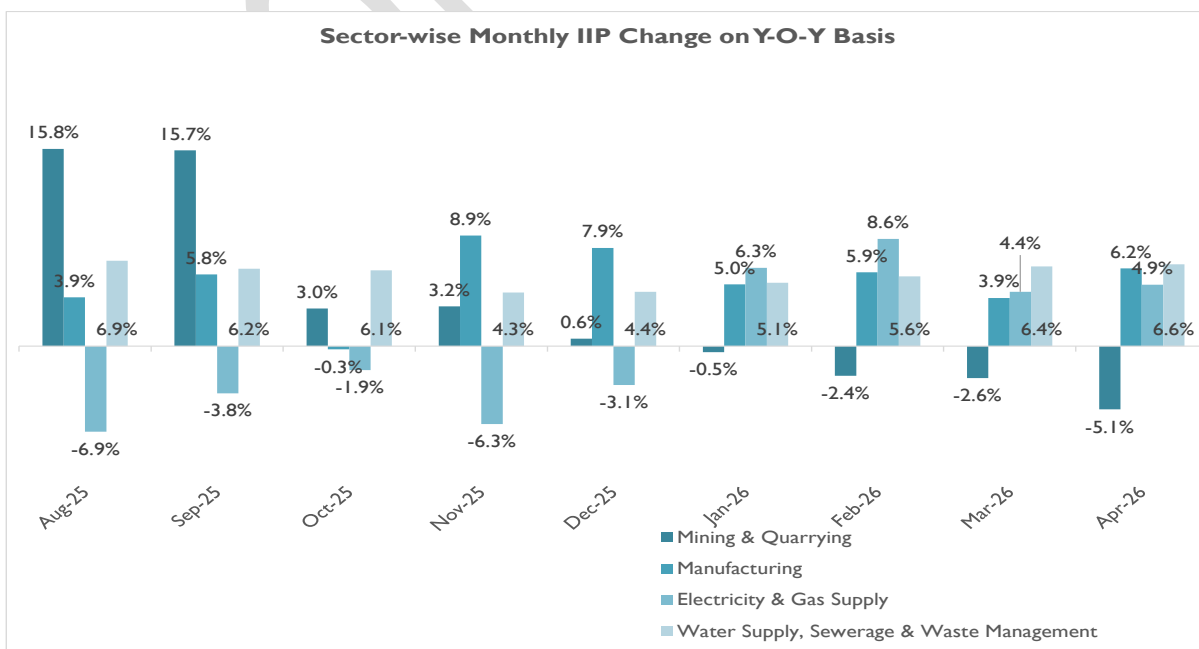
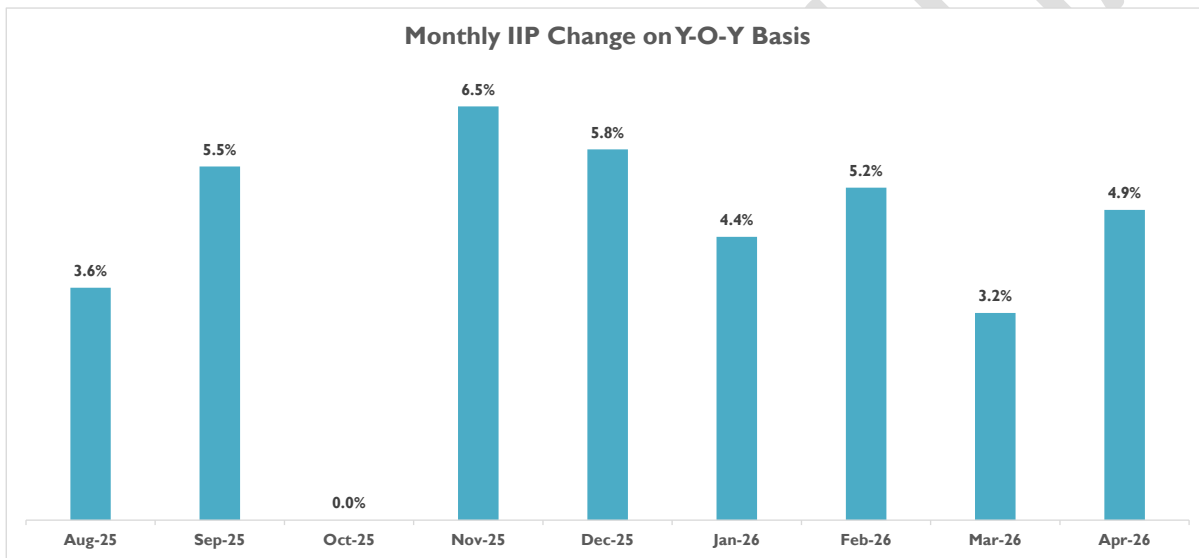
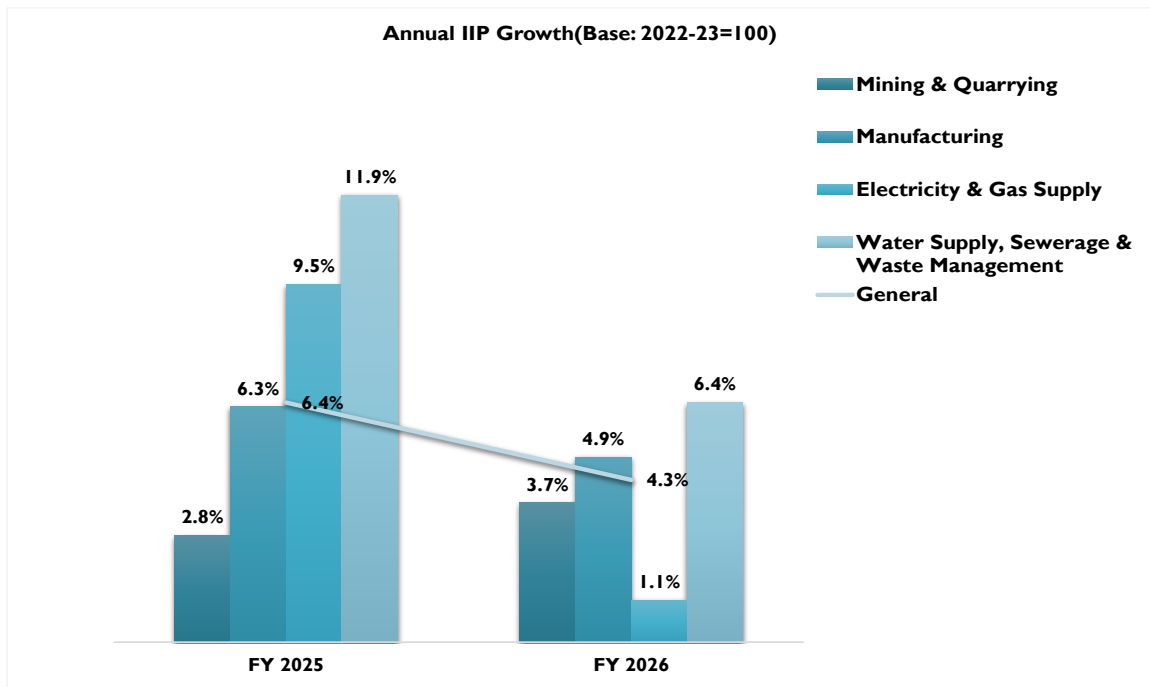
The services sector continued to be the main driver of economic growth. It expanded by 9.3% in FY 2026 from 7.9% in FY 2025. The services sector retained its position as the largest contributor to GVA, rising from 51.7% in FY 2024 to 52.0% in FY 2025, with a further increase to 52.7% in FY 2026.

The agriculture sector saw an acceleration in growth, increasing from 2.66% in FY 2024 to 4.18% in FY 2025, before moderating to 3.0% in FY 2026. However, its contribution to GVA declined marginally from 19.2% in FY 2024 to 17.8% in FY 2026. Overall, Gross Value Added (GVA) growth rose to 7.9% in FY 2026 from 7.3% in FY 2025.

Annual & Monthly IIP Growth

Industrial sector performance as measured by the IIP index exhibited moderation in FY 2026, recording a 4.3% y-o-y growth against 6.4% increase in the previous year. The manufacturing index showed moderation, increasing by 4.9% in FY 2026 compared with 6.3% in FY 2025. The Electricity & Gas Supply sector index also moderated, growing 1.1% in FY 2026 compared with 9.5% in the previous year. Water Supply, Sewerage & Waste Management also moderated by 6.4% in FY 2026 compared with 11.9% in the previous year, while the mining sector index grows by 3.7% in FY 2026 compared with 2.8% in the previous year.

² https://www.mospi.gov.in/uploads/latestReleases/latest_release_1780655857536_5ac01869-ca4a-422d-b7a7-57b81da60932_Press_Note_on_GDP_Estimates_for_Q4_2025-26_and_PE_FY_2025-26_F.pdf

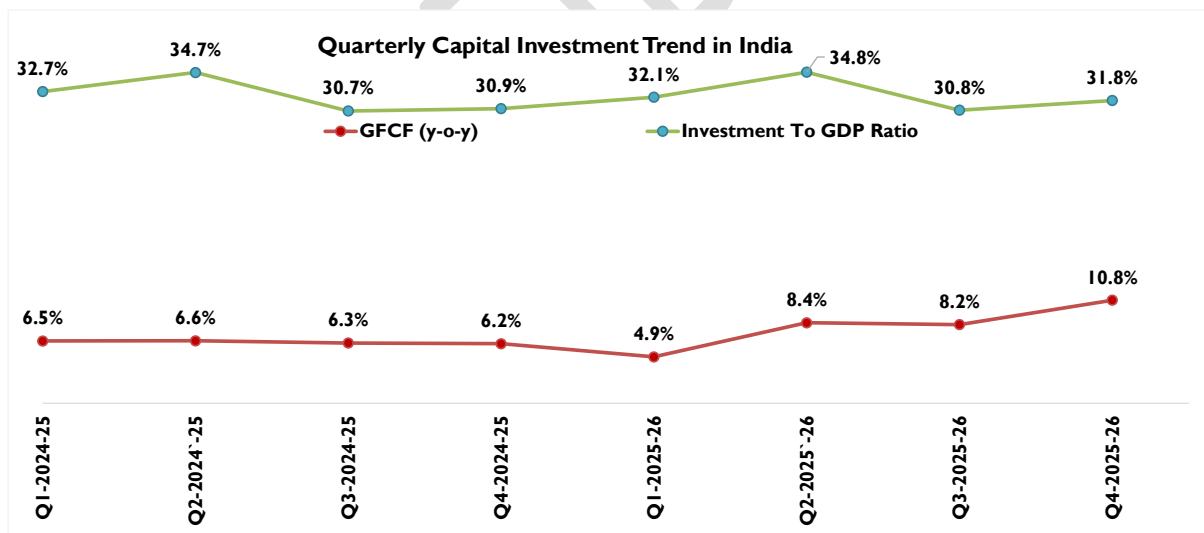
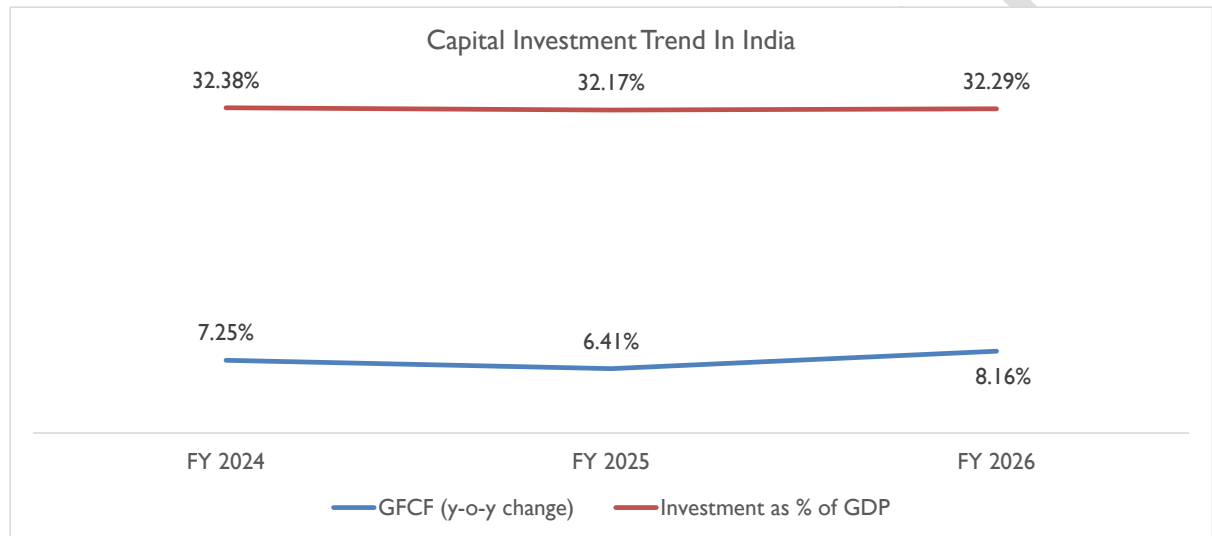


Source: Ministry of Statistics & Programme Implementation (MOSPI)

The IIP growth rate for the month of April 2026 is 4.9 percent as compared to April 2025. The growth rates of the Four sectors, Mining & Quarrying, Manufacturing, Electricity & Gas Supply and Water Supply, Sewerage & Waste Management for the month of April 2026 are (-)5.1 percent, 6.2 percent, 4.9 percent and 6.6 percent respectively

Annual and Quarterly: Investment & Consumption Scenario

Other major indicators, such as Gross Fixed Capital Formation (GFCF), a measure of investment, increased during FY 2026, registering 8.16% year-on-year growth compared with 6.41% in FY 2025, bringing the GFCF-to-GDP ratio to 32.29%.



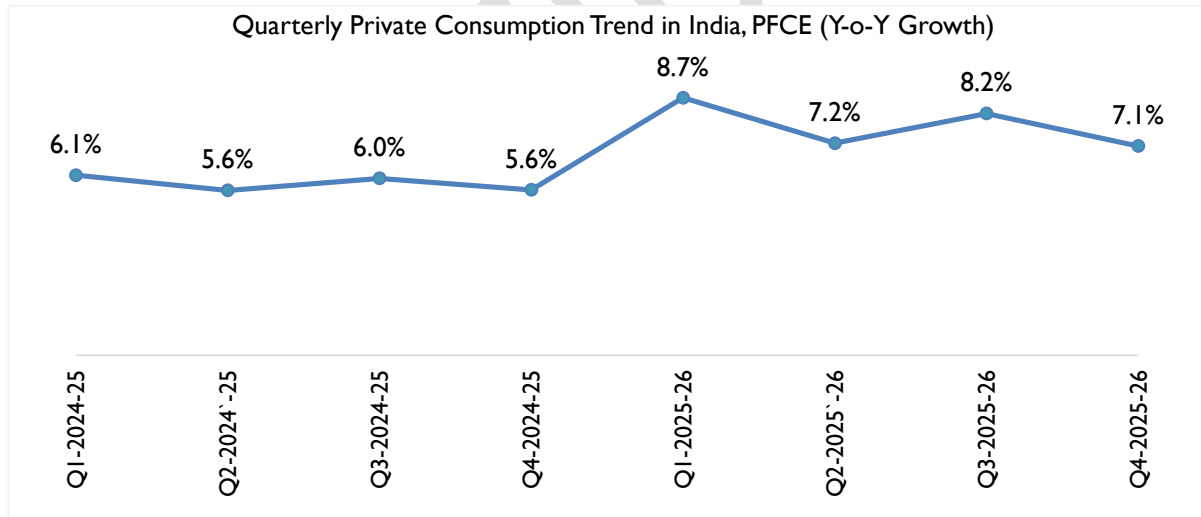
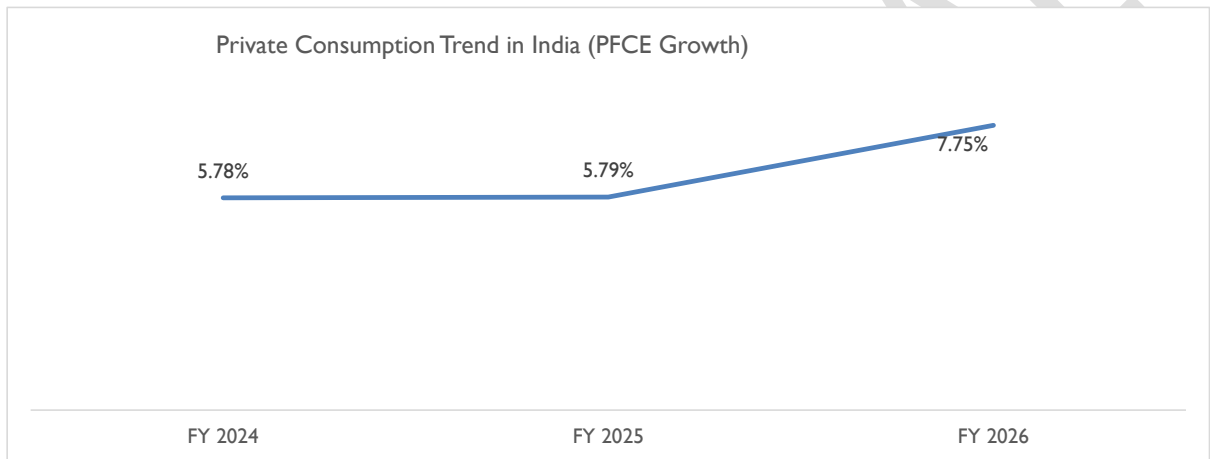
Source: Ministry of Statistics & Programme Implementation (MOSPI), CMIE Economics Outlook

On a quarterly basis, India's capital investment indicators reflect a healthy and improving investment environment, supported by sustained investment intensity and stronger capital formation in recent quarters. The Investment to GDP ratio remained consistently above 30% throughout the period, highlighting continued resilience in capital deployment. The ratio increased from 32.7% in Q1 FY 2024-25 to 34.7% in Q2, before moderating to 30.7% in Q3 and 30.9% in Q4. In FY 2025-26, the ratio improved again to 32.1% in Q1 and further strengthened to 34.8% in Q2, the highest level during

the period, before remaining healthy at 30.8% in Q3 and 31.8% in Q4. This indicates that investment activity continued to remain robust despite normal quarterly variations.

GFCF (y-o-y) growth also points toward a positive investment trend, particularly in FY 2025-26. After remaining broadly stable during FY 2024-25, with growth ranging between 6.2% and 6.6%, GFCF growth accelerated meaningfully from 4.9% in Q1 FY 2025-26 to 8.4% in Q2 and 8.2% in Q3, before rising further to 10.8% in Q4. This strong improvement in the second half of FY 2025-26 suggests strengthening fixed capital formation and a revival in investment momentum. Overall, the data indicates that India's capital investment landscape remains on a positive trajectory, with sustained investment levels and improving GFCF growth reflecting stronger capital spending, better investment confidence, and continued support for economic growth.

Private Consumption Scenario



Sources: MOSPI, CMIE Economics Outlook

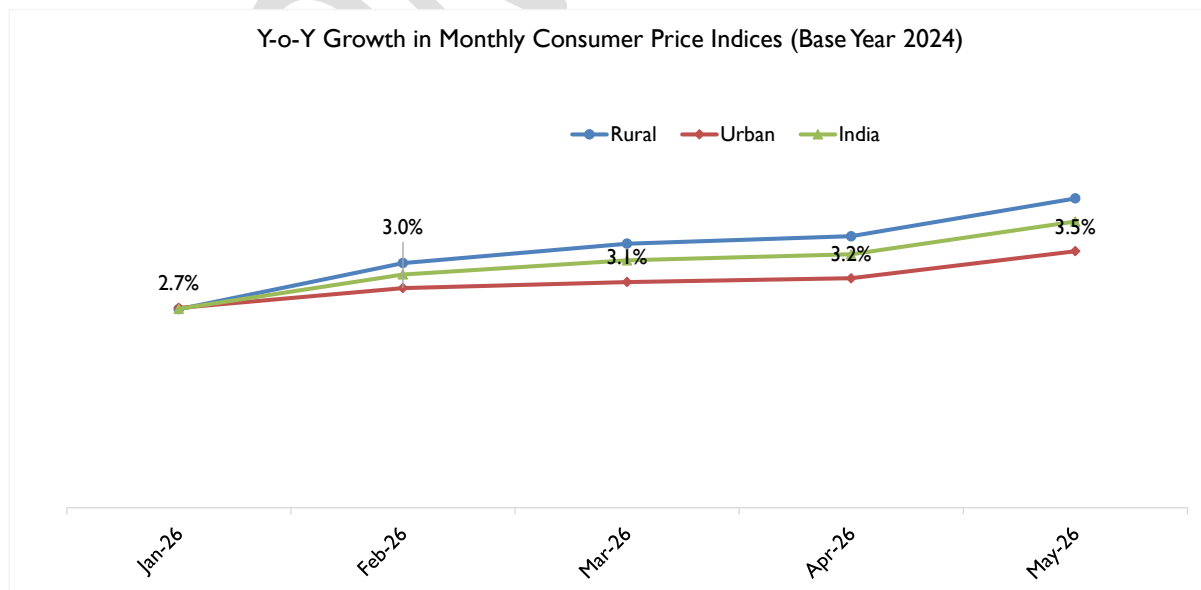
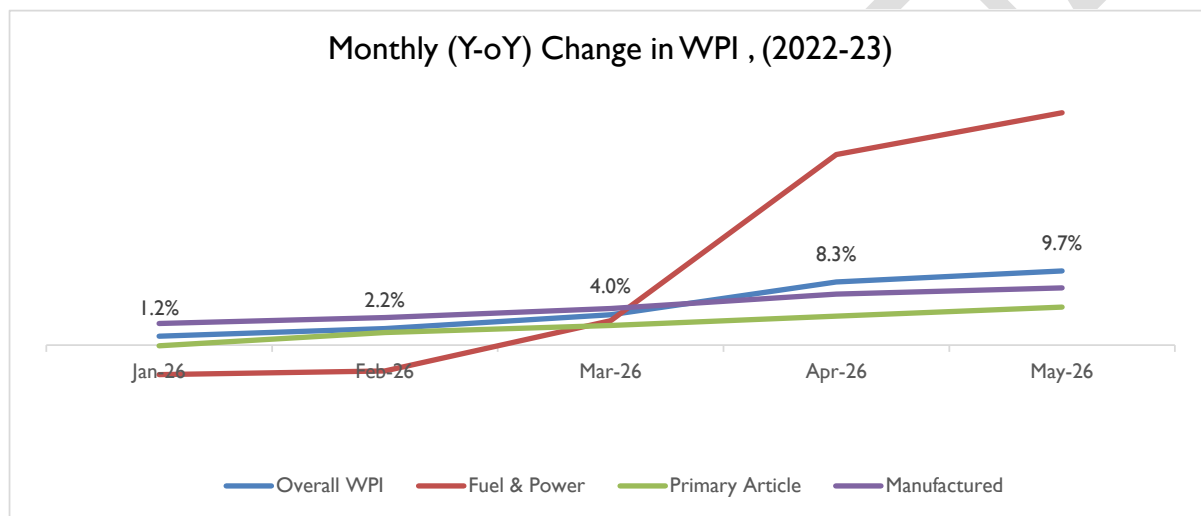
Private Final Consumption Expenditure (PFCE), a practical proxy for household spending, recorded growth in FY 2026 relative to FY 2025. PFCE recorded healthy growth in FY 2025-26 relative to FY 2024-25. However, quarterly PFCE growth moderated sequentially to 7.1% in Q4 FY 2025-26 from 8.2% in Q3 FY 2025-26

Inflation Scenario

The annual rate of inflation based on All India Wholesale Price Index (WPI) number is 3.88% (provisional) for the month of March 2026 (over March 2025). Positive rate of inflation in March 2026 is primarily due to increase in prices of crude petroleum & natural gas, other manufacturing, non-food articles, manufacture of basic metals and food articles etc.

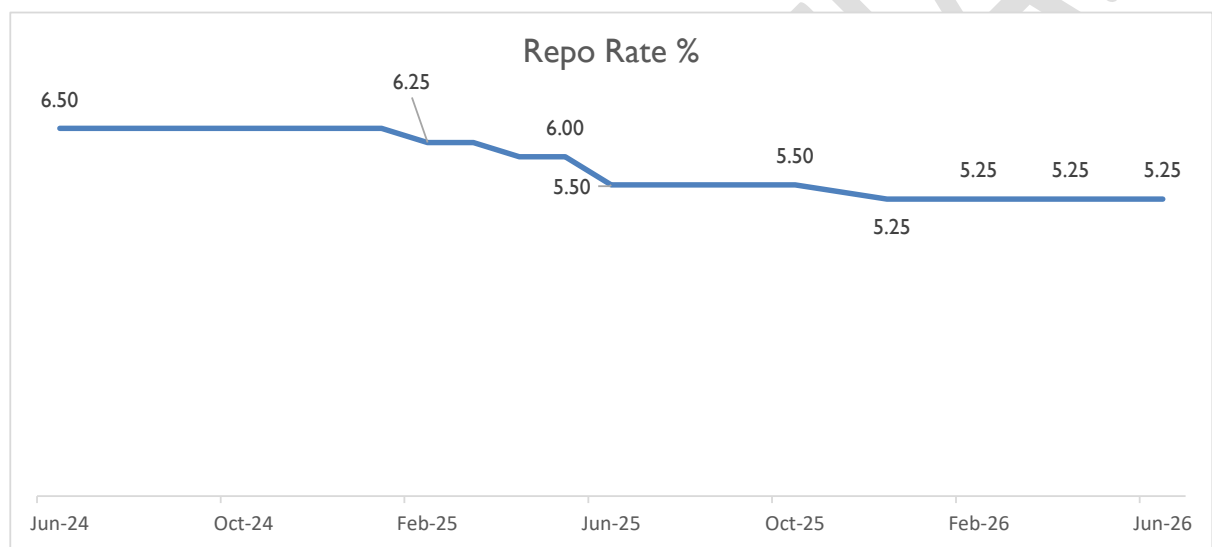
All India Wholesale Price Index (WPI) inflation for May 2026 is 9.68 per cent on year-on-year (YoY) basis, compared to 8.26 per cent in April 2026. The index for All Commodities for May 2026 stands at 109.9, whereas it was 108.8 in April 2026. Across Groups, 'Mineral Oils (containing Petroleum Products)', 'Crude Petroleum and Natural Gas', 'Manufacture of Chemicals and Chemical Products', and 'Manufacture of Basic Metals', have been major drivers of WPI inflation in April and May 2026.

Across Major Groups, YoY inflation for Primary Articles, Fuel and Power, and Manufactured Products is 4.99 per cent, 30.33 per cent, and 7.48 per cent, respectively in May 2026, whereas it was 3.78 per cent, 24.89 per cent, and 6.68 per cent, respectively, in April 2026. The indices for Primary Articles, Fuel and Power, and Manufactured Products are 113.7, 113, and 107.8, respectively, in May 2026, whereas they were 112.6, 110.9, and 107, respectively, in April 2026.



Source: MOSPI, Office of Economic Advisor

With effect from January 2026, the National Statistics Office (NSO) introduced a revised CPI series with base year 2024=100, drawing revised item weights from the Household Consumption Expenditure Survey (HCES) 2023-24. Year-on-year inflation rate based on All India Consumer Price Index (CPI) with base year 2024 for the month of May, 2026 over May, 2025 is 3.93%(Provisional). Corresponding inflation rates for rural and urban are 4.25% and 3.53%, respectively. On the monetary policy front, the RBI had cumulatively raised the repo rate by 250 basis points between May 2022 and February 2023, bringing it to 6.50%, where it was held steady through January 2025 to anchor inflationary expectations. With inflation moderating below target and growth requiring support, the RBI's Monetary Policy Committee (MPC) commenced an easing cycle in February 2025, delivering a cumulative 125 basis points of rate cuts through four reductions — 25 bps each in February 2025, April 2025, and December 2025, and a larger 50 bps cut in June 2025 — interspersed with pauses in August and October 2025. The repo rate currently stands at 5.25%, in June 2026.



Sources: CMIE Economic Outlook

Key Growth/Demographic Drivers for Economic Growth

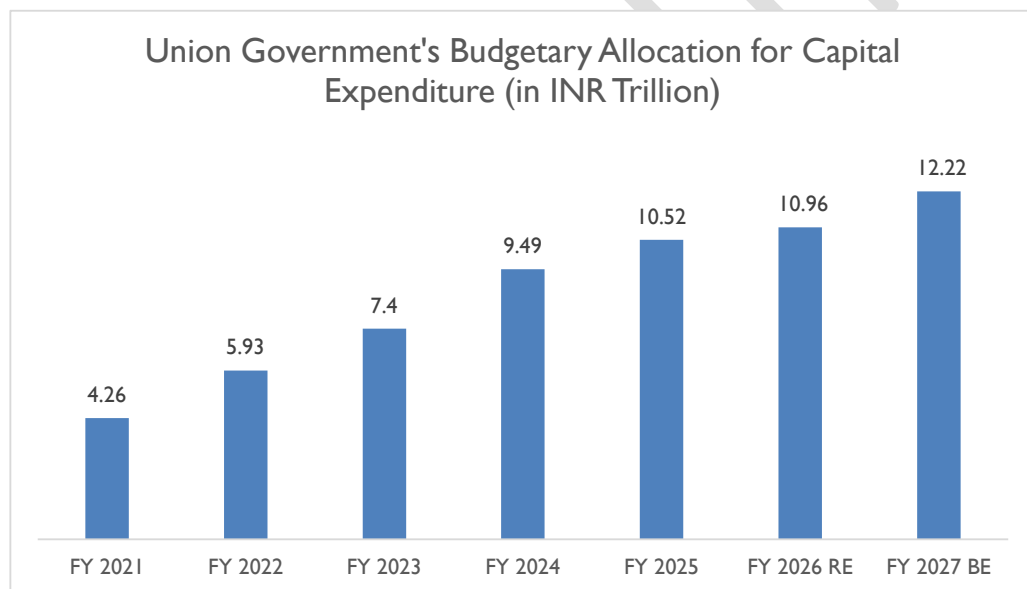
Government focus on infrastructure development

The infrastructure sector has received a strong boost in Budget FY'27, marked by a record INR 12.2 trn³ public capital expenditure allocation, reinforcing the government's focus on making assets more efficient and sustainable. The introduction of the landmark Infrastructure Risk Guarantee Fund aims to provide partial credit guarantees to lenders and revitalise private sector participation in large-scale projects. By lowering project risk premiums and easing borrowing costs, this mechanism is likely to help crowd in private capital and accelerate construction phase financing across the sector. The transport and logistics sector, in particular, will buoy infrastructure growth. Railways have received a substantial boost in allocation, which will help support the planned development of seven new high-speed rail corridors and a Dankuni-Surat DFC, which aims to cut logistics costs and improve national connectivity. Moreover, the rollout of

³<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2222521®=3&lang=1#:~:text=Reinforcing%20the%20role%20of%20public,productive%20capacity%20across%20the%20economy.>

20 new National Waterways, new ship repair hubs and a scheme to double the share of coastal and inland water transport from 6.0% to 12.0% by 2047⁴ will together build a greener, more efficient multimodal freight network. Urban transformation continues through targeted development of Tier-2 and Tier-3 cities – with populations over 0.5mn – alongside the creation of City Economic Regions, each supported by multi-year, challenge-based financing to establish new growth hubs and reduce pressure on metros. A broader ecosystem of reforms strengthens medium-term sector prospects. The government aims to scale domestic construction and infrastructure equipment manufacturing, reducing import dependence and improving execution capability in tunnelling, metro construction and road building machinery. The monetisation of CPSE assets will be accelerated through dedicated REIT⁵ structures, helping unlock liquidity for redevelopment and new project pipelines. Additional support flows through region-specific initiatives, such as industrial corridor expansion, and tourism development in cultural and Buddhist heritage zones will further reinforce construction demand.

Together, these measures will strengthen India's infrastructure ecosystem through higher public investment, improved risk mitigation tools and wider multimodal connectivity – creating a constructive environment for sustained growth in construction, logistics and urban development.



Union Budget, Government of India
Note: BE (Budget Estimates) and RE (Revised Estimates)

Development of Domestic Manufacturing Capability

The Government launched the Production Linked Incentive (PLI) scheme in early 2020, initially aimed at improving domestic manufacturing capability in large-scale electronic manufacturing and gradually extended to other sectors. At present it covers 14 sectors, ranging from medical devices to solar PV modules. The PLI scheme provides incentives to companies on incremental sales of products manufactured in India. This incentive structure is aimed at attracting private investment into setting up manufacturing units and thereby strengthening domestic production capabilities. The overall incentive outlay earmarked for the PLI scheme is estimated to be INR 2 trillion. If fully realised, the PLI scheme could add nearly 4% to annual GDP growth, by way of incremental revenue generated from the newly formed manufacturing units.

⁴ https://www.indiabudget.gov.in/doc/budget_speech.pdf

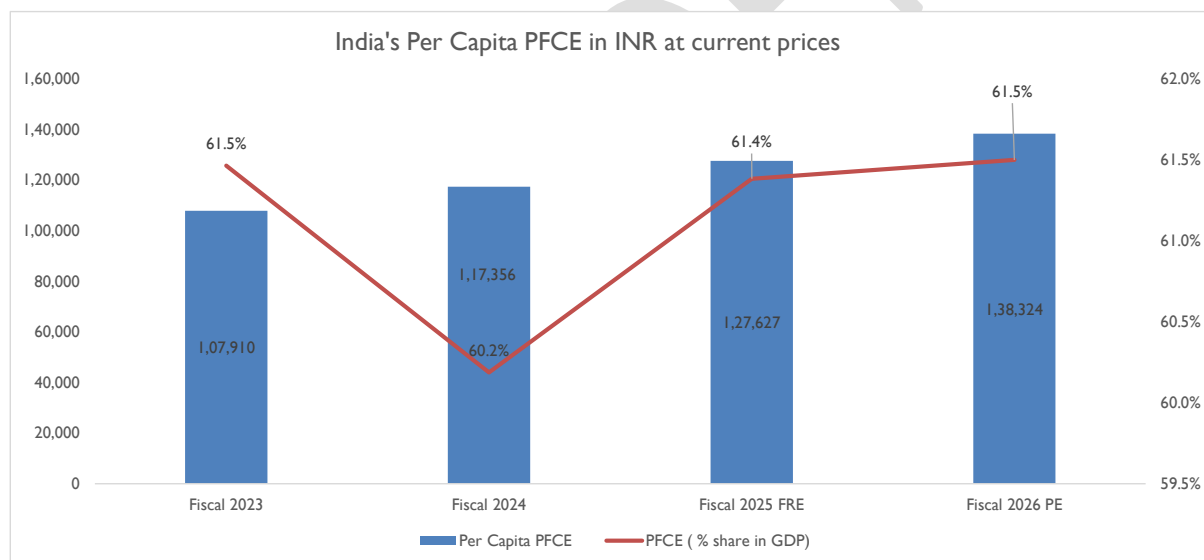
⁵ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2221817®=3&lang=1>

Strong Domestic Demand

Domestic demand has traditionally been one of the key drivers of the Indian economy. After a brief lull caused by the Covid-19, domestic demand is recovering. Consumer Confidence surveys by the Reserve Bank and other institutions point to an improvement in the Consumer Confidence Index, which is a precursor of improving demand. India has a strong middle-class segment, which has been the major driver of domestic demand. Factors like fast paced urbanization and improving income scenario in rural markets are expected to accelerate domestic demand further. This revival is reflecting in the private final consumption expenditure (PFCE) metric.

India's per capita Private Final Consumption Expenditure (PFCE) at current prices has shown a consistent upward trend, indicating steady improvement in household consumption levels over the years. Per capita PFCE increased from INR 1,07,910 in Fiscal 2023 to INR 1,17,356 in Fiscal 2024, and further rose to INR 1,27,627 in Fiscal 2025 FRE. It is estimated to increase further to INR 1,38,324 in Fiscal 2026 FE, reflecting continued growth in consumer spending and improving consumption capacity.

PFCE as a share of GDP also remained healthy during the period, broadly staying above 60%. The share stood at 61.5% in Fiscal 2023, moderated to 60.2% in Fiscal 2024, before recovering to 61.4% in Fiscal 2025 FRE and further improving to 61.5% in Fiscal 2026 FE. This indicates that private consumption continues to remain a key driver of India's economic growth. Overall, the steady increase in per capita PFCE, along with a stable PFCE share in GDP, reflects resilient household demand and sustained consumption momentum in the economy.

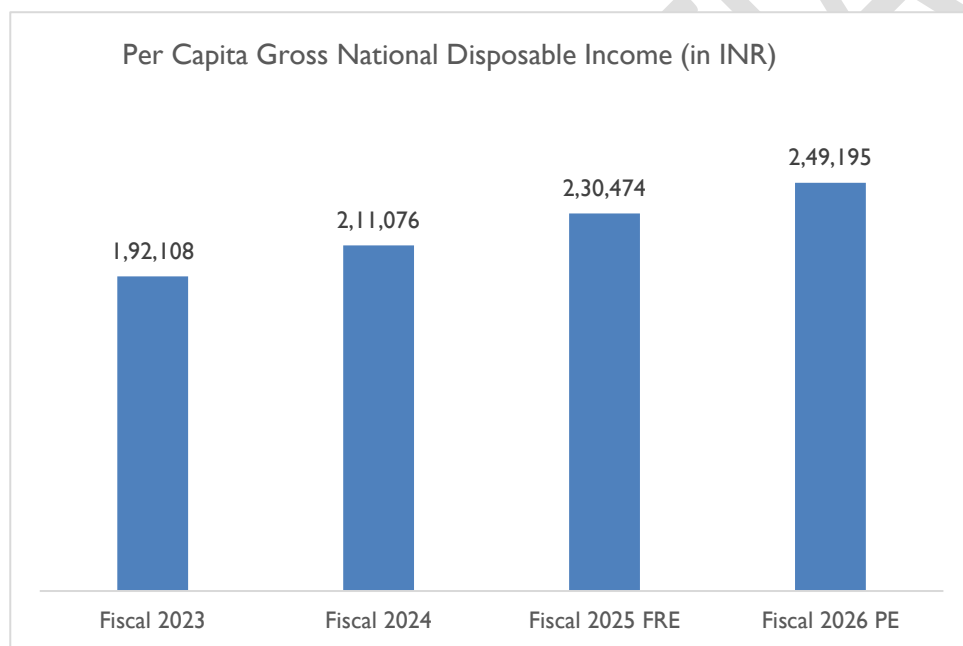


Source: Ministry of Statistics & Programme Implementation (MOSPI)

FRE is First Revised Estimate; PE is Provisional Estimates

There are two factors driving this domestic demand: first, the large pool of consumers; and second, the improvement in purchasing power.

- The share of middle class increased from nearly 14% in 2005 to nearly 30% in 2021 and is expected to cross 60% by 2047⁶. This expanding middle class household segment is fuelling India's growth story and would continue to play a key role in propelling India's economic growth.
- Consumer-driven domestic demand is majorly fuelled by this growth in per capita income. As per National Statistics Office (NSO), India's per capita Gross National Disposable Income (GNDI) has shown a steady upward trend, reflecting improvement in overall income levels and disposable income capacity. Per capita GNDI increased from INR 1,92,108 in Fiscal 2023 to INR 2,11,076 in Fiscal 2024 and further rose to INR 2,30,474 in Fiscal 2025 FRE. It is estimated to increase further to INR 2,49,195 in Fiscal 2026 PE, indicating continued growth in income levels across the economy. The consistent rise in per capita GNDI highlights strengthening purchasing power and improving household income conditions, which can support consumption demand going forward. Overall, the trend reflects a positive income environment, with rising disposable income expected to contribute to sustained private consumption and broader economic growth.



Source: Ministry of Statistics & Programme Implementation (MOSPI)

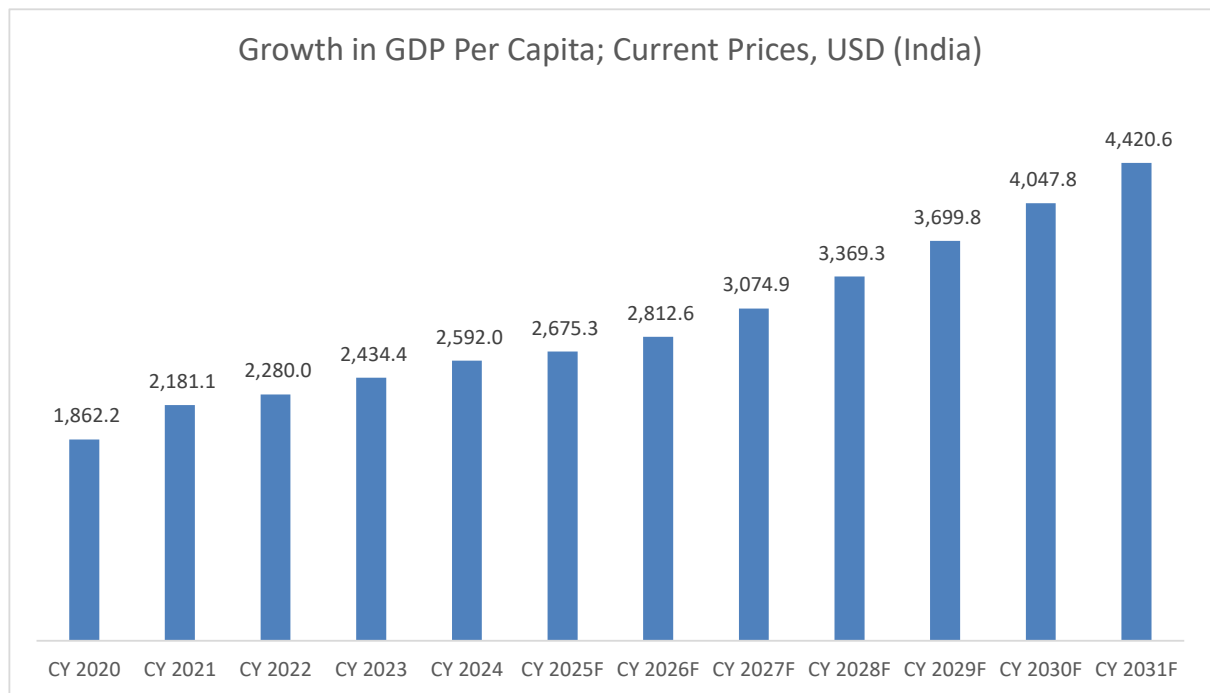
FRE is First Revised Estimate; PE is Provisional Estimates

India's Per Capita GDP Trends

India is poised to become the world's third-largest economy with a projected GDP of USD 5 trillion within the next three years, driven by ongoing reforms. As one of the fastest-growing major economies, India currently holds the position of the fifth-largest economy globally, following the US, China, Japan, and Germany. By 2027-28, it is anticipated that India will surpass both Germany and Japan, reaching the third-largest spot. This growth is bolstered by a surge in foreign investments and a wave of new trade agreements with India's burgeoning market of 1.4 billion people. The aviation industry is witnessing unprecedented orders, global electronics manufacturers are expanding their production capabilities, and suppliers traditionally concentrated in southern China's manufacturing hubs are now shifting towards India.

⁶ As per the survey conducted by People Research on India's Consumer Economy. Households with annual income in the range of INR 5 – 30 lakhs are considered as middle-class households.

To achieve its vision of becoming the world's third-largest economy by 2027-28, India will need to implement transformative industrial and governmental policies. These policies will be crucial for sustaining the consistent growth of the nation's per capita GDP over the long term.

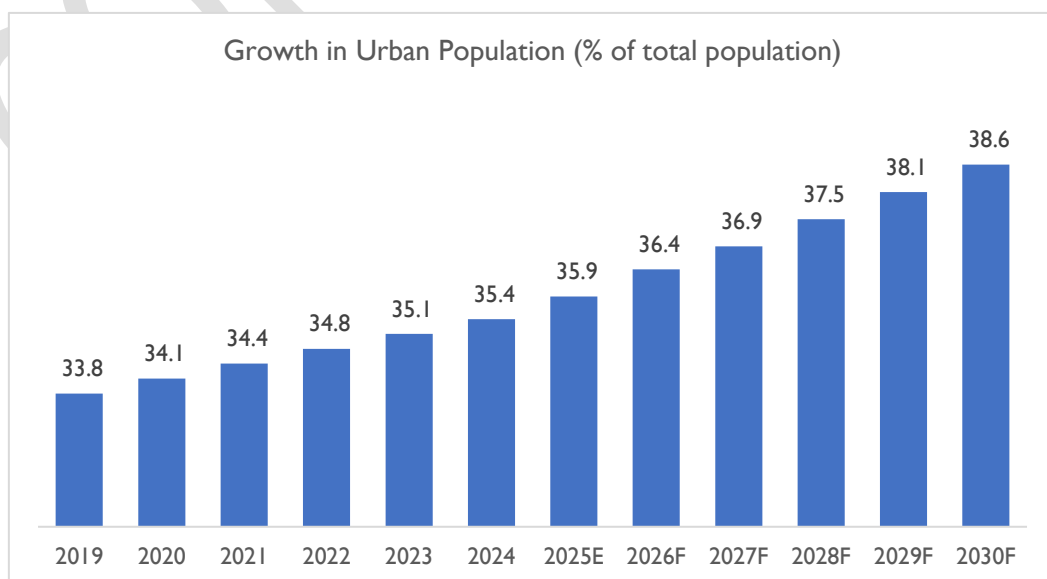


Source: IMF

From CY 2024 to CY 2031, India's per capita GDP is projected to grow at a compound annual growth rate of 7.9%. This growth will be driven by the service sector, which now accounts for over 50% of India's GDP, marking a significant shift from agriculture to services.

Increasing Urbanization

As per the Handbook of Urban Statistics 2022, India's urban population has been on a steady rise. Urban dwellers accounted for over 469 million in 2021 and are projected to rise to over 558 million by 2031 and further exceed 600 million by 2036.

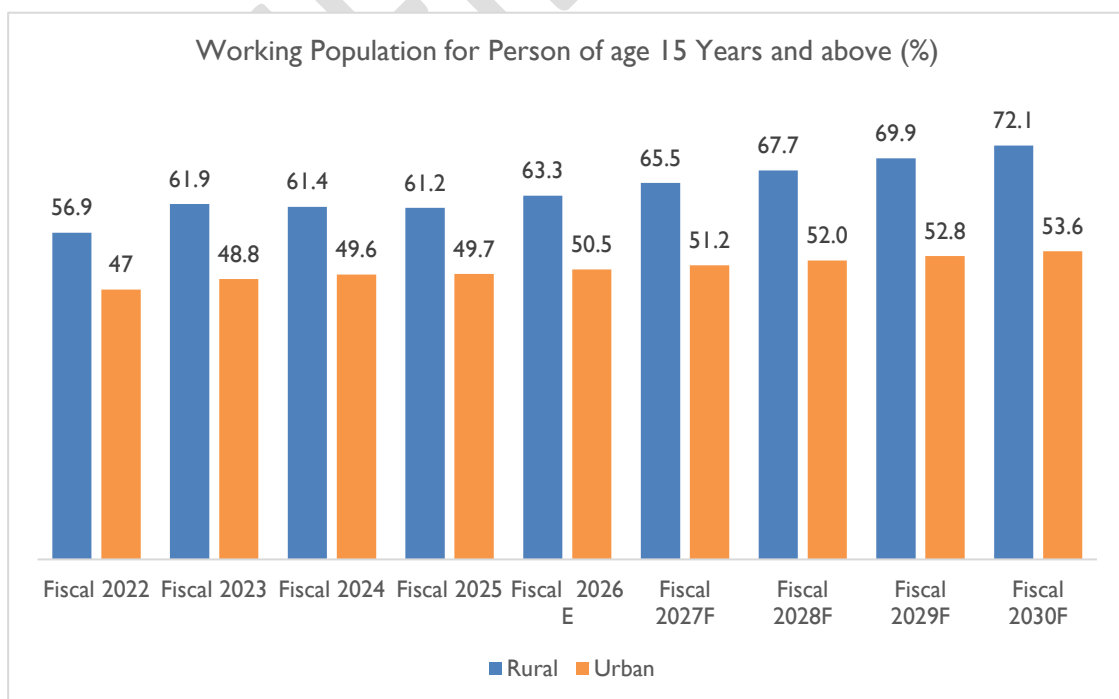


The share of urban population in total population has been rising steadily. In 2019, 33.81% of the total population was urban. By 2025, it had reached 35.9%, showing an increase over a span of five years of about 2.10%. The share of urban population is further forecasted to cross 38.6% by 2030. This increase in urban population is set to demand drastic changes in infrastructure development. Cities are a major driver for the construction industry. With cities expanding rapidly, there will be an increased need for improved housing, water supply, sewage systems, and electricity. Urban planning will need to account for higher population densities, necessitating the development of smart cities with integrated technology for efficient management of resources and services. The Smart Cities Mission targeted at 100 cities is aimed at improving the quality of life through modernised, technology-driven urban planning. This transformation will also require significant investment in public health, education, and recreational facilities to enhance the quality of urban living. The surge in urban population will also propel demand for improvement in multimodal transport infrastructure for freight and passenger travel requirements.

Rural vs. Urban Working Population by Age Group

As India continues to experience economic growth and development, the working population in both rural and urban areas is increasing. In the case of the urban population, this growth is reflected in the increase from a share of 47% in FY22 to 49.7% in FY25, whereas in rural areas, it grew from 56.9% in FY22 to 61.2% in FY25.

This growth is driven by a combination of factors, including demographic changes, economic policies, and the expansion of various industries. The rise in employment opportunities across sectors such as agriculture, manufacturing, services, and information technology has contributed to the overall increase in the working population, thereby fostering economic stability and enhancing the standard of living for many Indians.



Source: Periodic Labour Force Survey (PLFS) Annual Report, Dun & Bradstreet Research and Estimates

⁷<https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2022&locations=IN&skipRedirection=true&start=1960&view=chart>

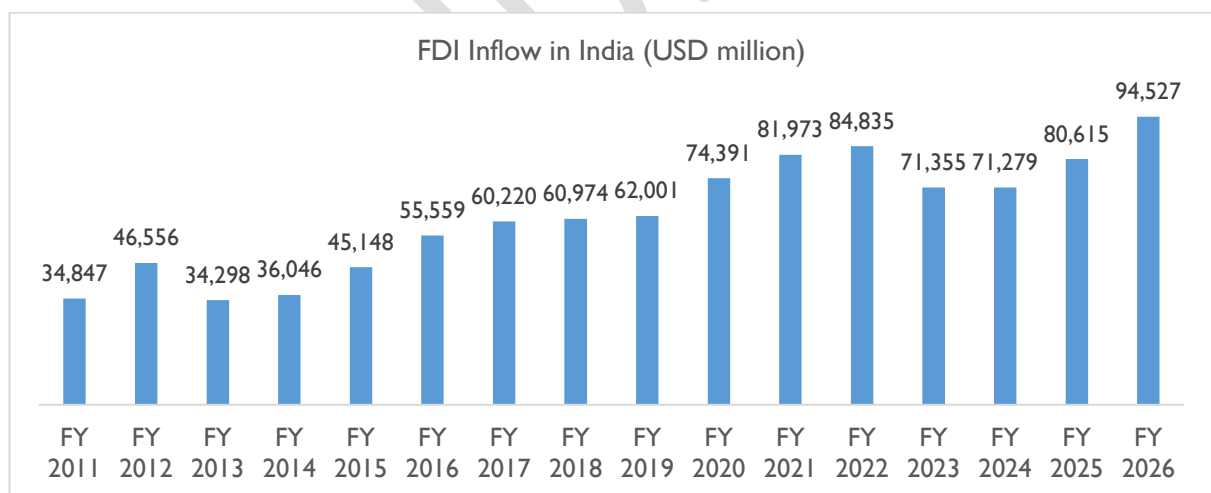
Note: 2025 refers to the period January 2025 – December 2025 and likewise for 2024, 2023 and 2022

In urban areas, the working population is growing rapidly due to the proliferation of jobs in sectors like IT, finance, retail, and healthcare. Additionally, the development of infrastructure, such as improved transportation networks and housing, has made urban centers more accessible and desirable for the working population. In rural areas, the working population remains substantial, primarily due to the dominance of the agricultural sector. Government initiatives aimed at rural development, such as improved access to education and skill development programs, have also played a crucial role in enhancing employment prospects in these regions.

The dominance of the rural working population over its urban counterpart can be attributed to the labour-intensive nature of the agricultural sector, which ensures a consistent demand for human labor despite advancements in mechanization, sustaining employment rates in rural areas.

Foreign Direct Investment Trend in India

FDI inflows in India observed a steady increase from FY 2013 to FY 2022 while it witnessed a decline of 15% in FY 2023 and a decline of 0.1% in FY 2024 due to several factors, including the ongoing conflict between Russia and Ukraine, changes in US monetary policy, and other global uncertainties. However, the country has received substantial FDI inflows from April 2000 to March 2026. This increasing FDI can be attributed to the new investment facilitation measures like the National Single-Window System (NSWS), which streamlines the approval and clearance process for investors, entrepreneurs, and businesses, along with sectoral measures and PLI schemes, supporting growth prospects in tier-2 and tier-3 cities. Further, tax compliance for startups and foreign investors has been simplified and the Income Tax Act, 1961, was amended in 2024 to abolish angel tax and to reduce income tax rate chargeable on income of a foreign company.



Sources: Department for Promotion of Industry and Internal Trade

Digitization Initiatives

2006 – 2010	Early Initiatives & Foundation Building	Launch of National e-Governance Plan (NeGP) to improve Government services through integration of IT. Introduction of MeghRaj initiatives – National Cloud Computing Infrastructure
2011-2015	Transition to Digital Platform	Launch of Digital India campaign Introduction of Aadhaar program
2016 – 2020	Accelerated Modernization & Integration of Emerging Technologies	Implementation of GST, and subsequently the creation of GST Network (GSTN) Cloud adoption gains momentum National Artificial Intelligence Strategy to promote responsible & ethical use of AI
2021 – 2024	Focus on digital inclusion & citizen centric services	Expansion of broadband connectivity, promoting digital inclusion in rural areas.

Government Flagship Digital Policies

While digitization of common citizen services has improved operational efficiencies as well as service delivery, it has generated massive data necessitating the requirement for a robust and flexible digital infrastructure. Subsequently the Government has scaled up its spending and budgetary allocation towards digital infrastructure updation, and adoption of cloud infrastructure.

Digital India Initiative

The Digital India program has spurred the development of citizen-centric applications like CoWIN and DigiLocker, emphasizing innovation, service quality, and operational efficiency. These apps have led to increased data generation and the need for flexible, scalable solutions. These solutions have significantly impacted vaccination distribution, worker registration, and document issuance, showcasing the tangible benefits of cloud technology adoption.

The scheme launched in 2015 is an umbrella program which covers programs including Aadhaar, country-wide rural broadband connectivity, common service centres, Bharat Interface for Money (BHIM), Aadhar enabled payment system, and MyGov program.

The Union Government has continued to strengthen the Digital India programme, with the focus shifting towards advanced digital infrastructure, artificial intelligence, cloud computing, cybersecurity and digital public infrastructure. Under the Union Budget 2026-27, the Government introduced measures to strengthen India's position as a global hub for cloud and AI infrastructure, including a proposed **tax holiday until 2047** for eligible foreign cloud service providers using India-based data-centre infrastructure for global operations.

Adoption of Hybrid Cloud Model

Rapid digitization of citizen services has created massive volume of data, with varying sensitivity levels. This has created the need for a hybrid cloud strategy, which provides both flexibility as well as enhanced data security. The hybrid cloud model has facilitated initiatives such as the MyGov Saathi app, engaging over 2.5 crore users. Additionally, entities like the IT Regulators of India and the Development Authority of Maharashtra leverage hybrid cloud models for government-to-consumer operations.

The Government of India has embraced a cloud-first approach, aiming to make it the default option for ministries/departments to enhance citizen-centric services and internal efficiency. The introduction of MeghRaj in 2013 facilitated cloud technology benefits within the government sector, leading numerous ministries/departments to initiate their cloud journey. Despite progress, some entities hesitate due to concerns like data security, control after migration, data loss, and application compatibility. Central and state governments are actively promoting cloud awareness.

Rapid digitization of citizen services has created a massive volume of data, with varying sensitivity levels. This has increased the need for secure, scalable and flexible cloud infrastructure. The Government of India continues to use GI Cloud (MeghRaj) as the national cloud infrastructure for government requirements, providing secure, scalable and elastic cloud facilities for the delivery of e-governance services through the National Informatics Centre (NIC). India's cloud and data-centre ecosystem is expanding rapidly, with data-centre capacity estimated at around 1,280 MW, while investments of nearly USD 70 billion are already underway and another USD 90 billion in projects have been announced.

The Government of India has embraced a cloud-first approach through GI Cloud (MeghRaj), introduced in 2013 to enable government organisations to leverage the benefits of cloud computing. The platform supports secure, scalable and elastic infrastructure for e-governance applications, while National Data Centres operate with layered security frameworks and empanelled service providers meeting international security standards. The Government is now further encouraging cloud and data-centre investments through the FY2026-27 tax framework, which proposes a tax holiday until 2047 for eligible foreign cloud service providers using notified Indian data-centre infrastructure.

These investments and government policies are strengthening India's position in the global IT-BPM sector. India's IT industry currently contributes approximately USD 246 billion in annual exports and employs around 6 million professionals. The sector is increasingly transitioning towards AI-enabled services, with generative AI being adopted across IT and BPM processes to improve productivity, automation and cost optimisation. The advent of generative AI is also redefining IT-BPM service offerings towards AI-driven analytics, intelligent automation, AI-powered products and co-pilots, and personalised customer interactions. In June 2026, MeitY held an industry consultation on the AI transformation of India's IT Services sector, specifically highlighting investments in AI, GenAI, Agentic AI, automation, analytics and cloud technologies, along with the need for large-scale workforce upskilling and reskilling.

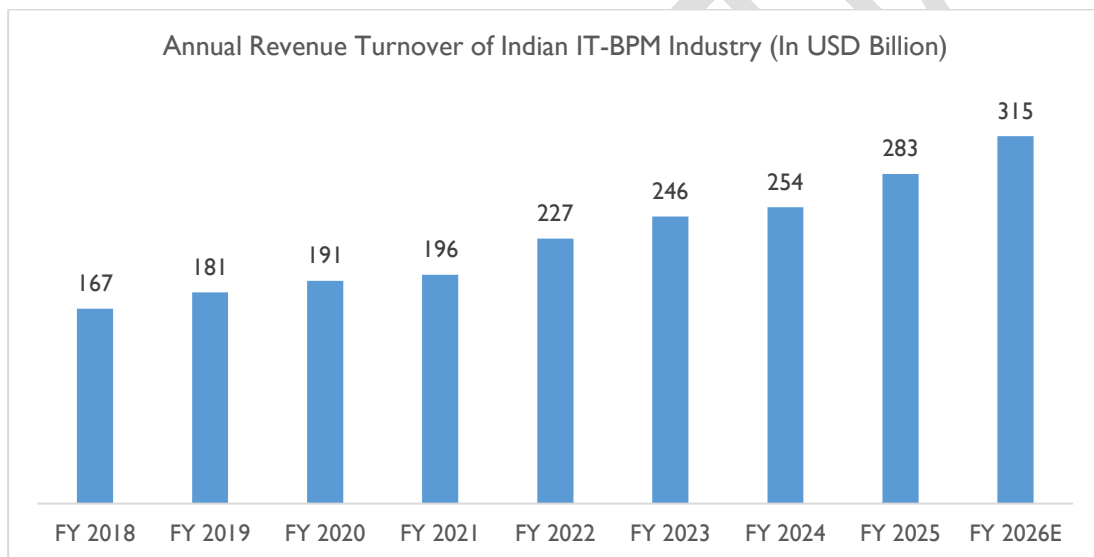
CONFIDENTIAL

Indian Information Technology Industry

Market Size & Historical Growth Trend

According to NASSCOM, the Indian technology industry is expected to surpass the USD 315 billion revenue mark in FY2026, reflecting a year-on-year growth of approximately 6.1% over FY2025. The industry has continued to demonstrate resilience despite global macroeconomic uncertainties, supported by growing demand for artificial intelligence (AI)-led services, engineering R&D, digital transformation initiatives, and the expansion of Global Capability Centres (GCCs).

India's technology sector is increasingly shifting from a scale-led growth model to one driven by innovation, value creation, and AI-enabled solutions. Export revenues are expected to exceed **USD 246 billion** in FY2026, while direct employment in the sector is projected to reach nearly **6 million professionals**, with a net addition of approximately **135,000 employees** during the year. Engineering R&D (ER&D) and Business Process Management (BPM) are expected to remain among the fastest growing segments, supported by increasing enterprise investments in AI, digital engineering, and product innovation



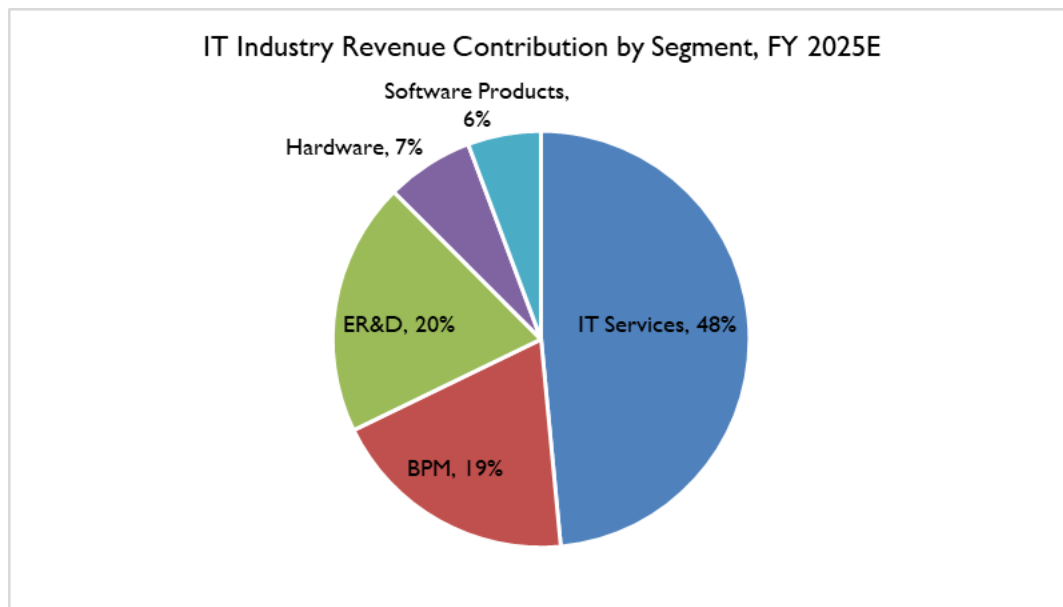
Source: NASSCOM

Market Segmentation

Nearly half of the annual industry revenue is contributed by IT services, which is the umbrella term used to categorize the wide range of services & systems that are provided to clients directly to support their information and technology infrastructure. In FY 2025, IT services brought in nearly 48% of the industry revenue.

Engineering, Research & Development (ER&D) services that includes embedded systems, IoT, automotive software, semiconductors, and smart manufacturing formed the second largest component, accounting for nearly 20% of the industry turnover in FY 2025.

Business Process Management (BPM) which forms the low value non-core services offered accounted for nearly 19% of the revenue while the remaining was contributed by software products and hardware.



Source: NASSCOM

IT Services: The largest segment accounting for 48% share is estimated to have grown by 4.3% on y-o-y basis to reach USD 137.1 billion in FY 2025.

The IT Services segment remains the backbone of the Indian IT-BPM industry, contributing nearly half of the total revenue. This segment includes offerings such as application development and maintenance (ADM), systems integration, consulting, infrastructure management, and support services. Demand is being fuelled by enterprises globally that are accelerating their digital transformation, cloud migration, and cybersecurity initiatives. Indian IT firms are increasingly moving up the value chain, offering end-to-end digital solutions, platform-based services, and industry-specific IT consulting to drive enterprise efficiency and innovation.

Engineering Research & Development (ER&D): For the first time, ER&D has overtaken BPM in revenue, reaching USD 55.7 billion with a growth rate of nearly 30%.

The ER&D segment is the fastest-growing in the IT-BPM landscape, reflecting a global trend of outsourcing high-end product engineering and design services. This includes areas like embedded systems, IoT, automotive software, semiconductors, and smart manufacturing.

With increased global investment in innovation, especially in sectors like automotive (EVs), healthcare, aerospace, and industrial automation, Indian firms are being seen as strategic partners for product lifecycle management. The segment is increasingly driven by IP-led solutions, platform engineering, and industry 4.0 adoption.

Business Process Management (BPM): Generating USD 54.6 billion in revenue, growing at 4.7% year-on-year.

The BPM segment plays a vital role in outsourcing non-core processes like customer support, finance and accounting, human resources, and procurement. Its growth is driven by cost optimization pressures and a shift towards value-added services such as intelligent automation, robotic process automation (RPA), and analytics-driven decision-making.

India continues to be a global leader in BPM, benefiting from its skilled, English-speaking workforce, and process excellence. BPM services are evolving from labor-arbitrage models to “digital BPM” models that focus on customer experience, real-time insights, and cognitive automation.

Hardware: Accounting for nearly 7% in FY 2025, translating into USD 19.2 billion in revenue

Renewed government push under initiatives like “Make in India” and the Production Linked Incentive (PLI) Scheme for IT hardware is aimed at reviving local manufacturing and reducing import dependency. The hardware market is also expected to benefit from digital public infrastructure expansion, increased government and educational IT spending, and adoption of advanced technologies such as 5G, edge computing, and IoT that require hardware backbone upgrades. Indian and global players are investing in setting up local manufacturing units, which could significantly expand this segment’s contribution in the medium to long term.

Software Products: Accounting for nearly 6% in FY 2025, translating into USD 16.1 billion in revenue.

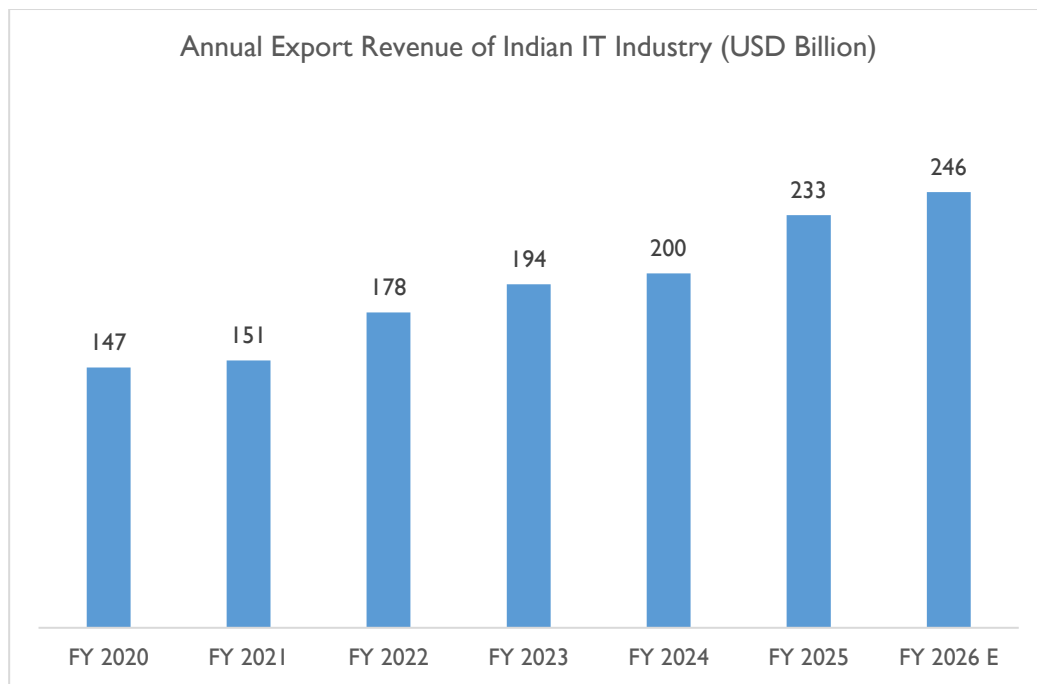
While traditionally a smaller contributor, this segment is gaining momentum with a surge in Indian software-as-a-service (SaaS) startups and product innovation. Indian SaaS companies like Zoho, Freshworks, and many vertical-focused startups are expanding their global footprint.

The segment contributes to revenue both directly through product sales and indirectly via innovation in the IT services ecosystem. With strong VC interest and enterprise adoption of AI-driven SaaS platforms, this segment is poised for exponential growth over the next few years.

Export Revenue

India’s digital economy continued to witness strong growth, driven by sustained expansion in domestic technology spending, increasing enterprise digitalisation, and rising adoption of cloud-based solutions. Domestic technology revenues outpaced export growth for the second consecutive year, supported by higher investments in enterprise software, artificial intelligence, cybersecurity, and digital infrastructure. In addition, rapid expansion in data centre capacity and growing demand for digital transformation services further strengthened the growth momentum of India’s IT-BPM industry.

The export revenue of India’s IT-BPM industry increased from approximately USD 233 billion in FY 2025 to an estimated USD 246 billion in FY 2026, registering a growth of nearly 5.6% year-on-year. The continued growth in export revenues was supported by strong global demand for outsourcing services, cost competitiveness, business risk mitigation strategies, utilisation improvement, and India’s large skilled technology workforce. Increasing adoption of cloud computing, analytics, generative AI, and digital engineering services also contributed significantly to the expansion of the Indian IT-BPM export market.



Source: NASSCOM

Key Factors Driving Export Revenue

Large Talent Pool & Cost Competitiveness: Presence of a large employee base with high IT skills and a cost differential with their peers in the developed markets of the US and Europe has helped the country emerge as a sought-after IT outsourcing destination. As per industry estimates, labour cost efficiency is up to 30-40% more than source countries (primarily US) that gives a huge opportunity for the outsourcing business model to expand. In FY2026, the industry added approximately 135,000 employees, taking its workforce to nearly 5.95 million, a 2.3% year-on-year increase. More than 2 million professionals were upskilled in AI, including 200,000 to 300,000 in advanced AI capabilities. India's competitive advantage is increasingly shifting from labour-cost arbitrage toward AI-enabled productivity, specialised digital skills and outcome-based delivery.

Global Technology Spending: Enterprises worldwide continue to prioritise digitalisation, automation and cloud adoption to improve operational efficiency and resilience, sustaining strong momentum in global technology investment. According to Gartner's latest forecast, worldwide IT spending is projected to reach USD 6.37 trillion in 2026, a 14.2% increase over USD 5.58 trillion in 2025, led by accelerating investment in AI infrastructure, cloud platforms and intelligent software. This expanding global technology outlay creates significant opportunities for India's export-oriented IT industry.

Preferred Outsourcing Destination: Indian IT industry has earned more than 25 years of outsourcing experience and possesses a strong ecosystem. Indian companies are steadily upgrading their capabilities to rapidly adapt with emerging demand. With expanding GCC base and tech value proposition, India's continued to ranked 1st as sourcing destination with nearly 60% share in global outsourcing market which witnessed significantly higher growth reaching USD 224 billion in 2025.

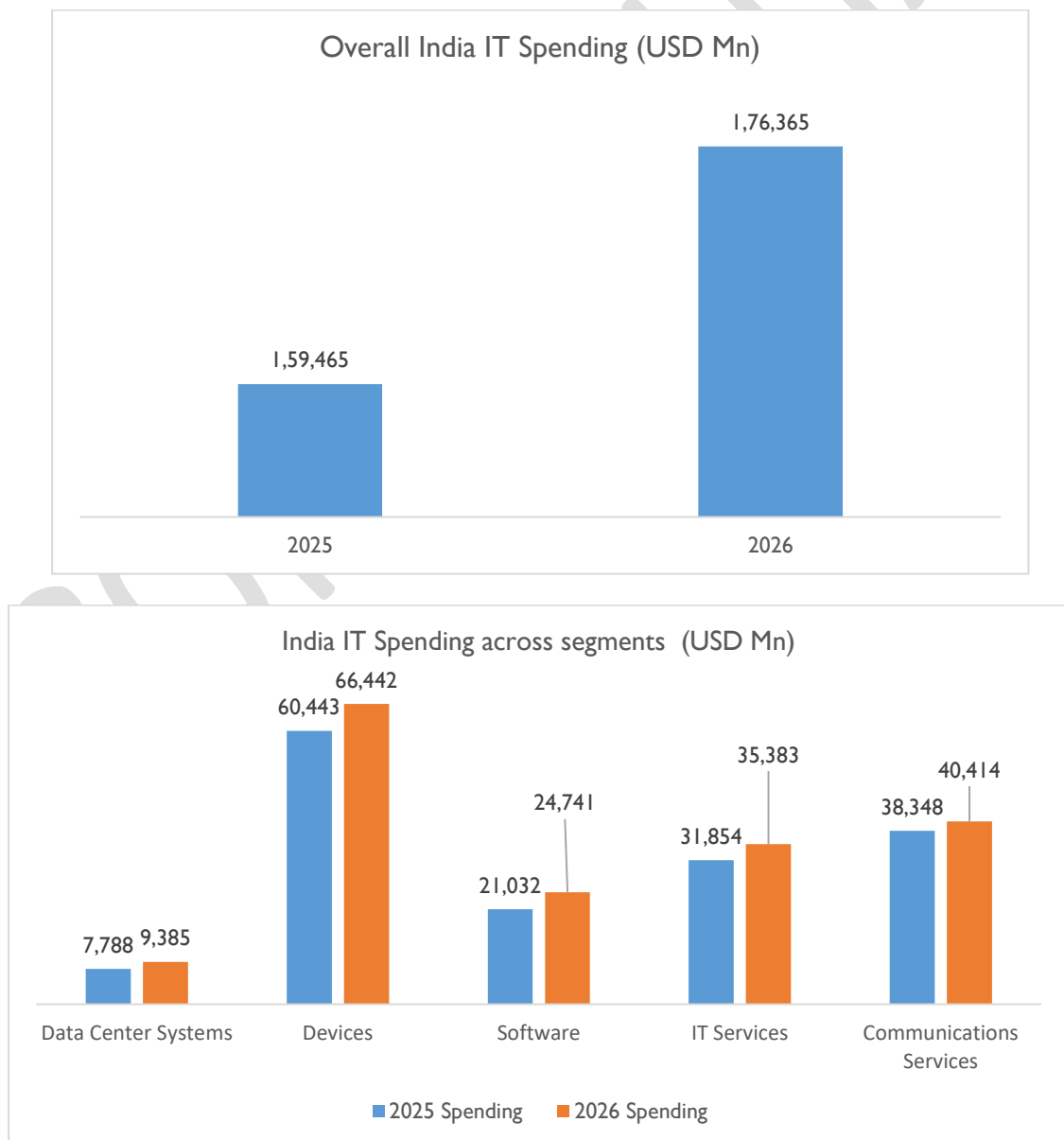
Growing Technology Absorption in Domestic Market: While the first phase of India's technology industry development was driven by export of software and services, the current boom is largely led by domestic demand. A major source of growth in domestic IT-BPM revenue has been Government initiatives and technology adoption

programmes by government for its citizen and inter- departmental services. Enterprise services comprising of M-wallets/m-banking for financial inclusion; digital marketing; online payments; analytics; automotive (EV/autonomous vehicles); etc. and smart projects comprising of smart city, transportation, utilities buildings, etc., E-commerce.

Domestic IT Spending in India

Market Scenario

The Indian IT sector is expected to maintain its strong growth trajectory, with overall IT spending projected to reach USD 1,76,365 million in 2026, reflecting a 10.6% increase over 2025. Growth is being driven by continued investments in cloud technologies, AI infrastructure, cybersecurity, application modernization, and digital transformation initiatives across enterprises. All major segments, including Data Center Systems, Devices, Software, IT Services, and Communication Services, are expected to contribute to this expansion.



Among all segments, Data Center Systems is forecast to record the highest growth rate of 20.5% in 2026, reaching USD 9,385 million. This growth is primarily driven by substantial investments in AI infrastructure, increasing demand for local data processing capabilities, and initiatives supporting India's AI ecosystem. Additionally, evolving data privacy regulations and sovereign cloud requirements are prompting enterprises to invest in domestic data center capacity.

The **Software** segment is expected to grow by **17.6%**, reaching **USD 24,741 million in 2026**. Enterprises are increasing investments in AI-enabled applications, cybersecurity solutions, analytics platforms, and modern IT infrastructure. The rapid integration of generative AI capabilities into enterprise software is further accelerating software adoption and spending.

The **Devices** segment is projected to reach **USD 66,442 million**, reflecting a growth of **9.9%** in 2026. Continued demand for device refresh cycles, upgrades to AI-enabled hardware, and increasing adoption of digital technologies by businesses and consumers are expected to support sustained growth in this segment.

IT Services, a key pillar of the Indian technology industry, is forecast to grow by **11.1%**, reaching **USD 35,383 million in 2026**. Growth is expected to be driven by strong enterprise spending on infrastructure-as-a-service (IaaS), consulting, cloud migration, and application modernization. The expansion of Global Capability Centers (GCCs) and India's large pool of skilled technology professionals continue to enhance the country's position as a leading IT services hub.

Meanwhile, **Communication Services** spending is expected to increase by **5.4%**, reaching **USD 40,414 million in 2026**. Although growth in this segment remains comparatively moderate, ongoing investments in digital connectivity, telecom infrastructure, and advanced communication technologies will continue to support India's increasingly digital economy.

Private Sector IT Spending Trends in India

In recent years, India's corporate sector has embarked on a transformative journey driven by IT modernization and digital transformation. This paradigm shift has been catalyzed by rapid technological advancements, changing consumer behaviors, and evolving market dynamics. As organizations across various industries strive to stay competitive and relevant in an increasingly digital world, the adoption of innovative technologies and digital strategies has become imperative.

The digital era has ushered in a new wave of transformation, reshaping traditional business models and revolutionizing industry landscapes. Digital transformation encompasses the integration of digital technologies across all aspects of business operations, including customer engagement, product development, supply chain management, and workforce collaboration. In India, digital transformation has emerged as a strategic imperative for organizations seeking to enhance agility, drive innovation, and deliver superior customer experiences in a rapidly evolving marketplace.

Several key factors are driving the push towards IT modernization in India's corporate sector:

- **Technological Innovation:** The relentless pace of technological innovation, fueled by advancements in cloud computing, artificial intelligence, machine learning, and data analytics, is empowering organizations to reimagine business processes and unlock new opportunities for growth and efficiency.
- **Changing Consumer Expectations:** Today's consumers demand seamless, personalized, and convenient experiences across digital channels. Organizations are under pressure to adapt to these changing expectations by leveraging digital technologies to deliver exceptional customer experiences.
- **Competitive Pressures:** Intense competition in domestic and global markets is compelling organizations to embrace digital transformation as a means of gaining a competitive edge. Businesses that fail to innovate and modernize risk being left behind in an increasingly digital marketplace.

Digital Transformation Initiatives

Digital transformation has become a cornerstone of growth and innovation for the corporate sector in India. Fueled by technological advancements and changing market dynamics, organizations across industries are embracing digital initiatives to enhance efficiency, agility, and customer-centricity. Given below are the key digital transformation initiatives driving progress in India's corporate sector:

E-commerce and Omnichannel Strategies:

With the proliferation of smartphones and internet connectivity, e-commerce has emerged as a pivotal driver of digital transformation in the corporate sector of India. Organizations are investing in robust e-commerce platforms and omnichannel strategies to reach customers across multiple touchpoints seamlessly. From online marketplaces to mobile applications, companies are leveraging digital channels to enhance customer engagement, drive sales, and build brand loyalty.

Cloud Computing and Infrastructure Modernization:

Cloud computing has revolutionized the way businesses manage and deploy IT infrastructure, enabling scalability, flexibility, and cost efficiency. Organizations in India are migrating their workloads to cloud platforms such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform to streamline operations, accelerate innovation, and drive digital transformation. By leveraging cloud-native technologies, companies can modernize their IT infrastructure, improve agility, and unlock new capabilities for growth.

Data Analytics and Business Intelligence:

Data has emerged as a strategic asset for organizations seeking to gain actionable insights and make informed decisions. Digital transformation initiatives in India's corporate sector include investments in data analytics and business intelligence tools to harness the power of data. From predictive analytics to real-time dashboards, companies are leveraging advanced analytics techniques to uncover trends, identify opportunities, and drive operational efficiency. Data-driven decision-making is becoming increasingly central to business strategies, enabling organizations to stay competitive in a rapidly evolving marketplace.

Artificial Intelligence and Machine Learning:

Artificial intelligence (AI) and machine learning (ML) are transforming business processes and customer experiences across industries. In India, organizations are leveraging AI and ML technologies to automate repetitive tasks, personalize customer interactions, and optimize operations. From chatbots and virtual assistants to predictive maintenance and fraud detection, AI-powered solutions are driving efficiency, innovation, and value creation. By harnessing the power of AI and ML, companies can unlock new revenue streams, improve productivity, and deliver superior customer experiences.

Cybersecurity and Risk Management:

As digitalization accelerates, cybersecurity has become a top priority for organizations looking to protect their assets, data, and reputation. Digital transformation initiatives in India's corporate sector include investments in cybersecurity solutions and risk management frameworks to mitigate threats and vulnerabilities. From network security and endpoint protection to threat intelligence and incident response, companies are adopting a proactive approach to cybersecurity to safeguard against cyber-attacks and data breaches. By implementing robust security measures and fostering a culture of cybersecurity awareness, organizations can build trust with customers, partners, and stakeholders.

IT Infrastructure Industry

The IT industry plays a pivotal role in driving India's overall economic growth. The industry contributed 7% to India's national GDP in FY 2026. In FY2026, direct employment in India's technology sector is projected to reach **approximately 6 million**, up **2.3% from FY2025**, following the net addition of **135,000 employees**.

IT infrastructure services provide the foundation for India's digital transformation by building and managing data centers, networks, and cloud platforms. This ensures ubiquitous internet access, critical for connecting citizens, businesses, and government entities.

Reliable and secure IT infrastructure facilitates the adoption of digital technologies like cloud computing, AI, and IoT across sectors like healthcare, education, banking, and agriculture. This translates to improved efficiency, transparency, and innovation within these sectors. Government initiatives like Digital India rely heavily on robust IT infrastructure for delivering citizen-centric services like e-KYC, e-payments, and online education platforms.

Key Segments

Workplace Services:

The workplace services segment within the IT infrastructure sector goes beyond just maintaining and managing technology within an organization's physical space. It encompasses a comprehensive approach to supporting an increasingly complex and digital work environment. The workplace is evolving rapidly, with remote and hybrid work models becoming increasingly common. This demands flexible and scalable workplace services that cater to a distributed workforce. Cloud-based solutions are gaining traction in workplace services, providing cost-effectiveness, accessibility, and improved collaboration capabilities. Workplace services are no longer siloed but are increasingly integrated with broader business objectives, focusing on user experience, productivity, and overall employee engagement.

Key Services and Trends:

- End-user Support: Evolving from traditional helpdesks to self-service portals and AI-powered chatbots for faster and more personalized assistance.
- Network and Security Management: Emphasis on proactive monitoring, threat detection, and zero-trust security models to ensure data protection and compliance.
- Mobility Management: Managing diverse device types, securing access to corporate resources, and facilitating secure mobile productivity tools.
- Unified Communications and Collaboration: Integrating voice, video, and data tools for seamless communication and collaboration across locations and devices.
- Workplace Automation: Automating routine tasks like device provisioning, password resets, and patching vulnerabilities for improved efficiency and reduced downtime.
- Digital Workspace Management: Providing a personalized and secure digital workspace with access to applications, data, and tools based on individual roles and needs.
- Workplace Analytics: Utilizing data insights to optimize IT services, improve user experience, and identify areas for cost reduction.

Data Security:

Data security plays a critical role in today's digital landscape, safeguarding sensitive information from ever-evolving threats. This segment within IT infrastructure focuses on protecting data from unauthorized access, use, disclosure, disruption, modification, or destruction. Cybercriminals are constantly evolving their tactics, making data security an ongoing challenge. This necessitates staying updated on the latest threats and adopting a layered security approach. Data privacy regulations like GDPR and CCPA are becoming increasingly stringent, demanding robust data protection measures. The growing adoption of cloud services introduces new security considerations, requiring securing data across on-premises and cloud environments.

Key Services and Trends:

- Network Security: Implementing firewalls, intrusion detection/prevention systems (IDS/IPS), and vulnerability management solutions to protect networks from unauthorized access and malicious activity.
- Endpoint Security: Deploying antivirus, anti-malware, and endpoint detection and response (EDR) solutions to secure individual devices from malware and intrusions.
- Identity and Access Management (IAM): Establishing robust IAM practices including multi-factor authentication and role-based access control to ensure only authorized users can access specific data and systems.
- Data Encryption: Encrypting data at rest and in transit using industry-standard algorithms to protect its confidentiality even if compromised.
- Data Backup and Recovery: Implementing comprehensive backup and recovery strategies to ensure data can be restored quickly and efficiently in case of disasters or cyberattacks.
- Cloud Security: Utilizing cloud-specific security solutions like cloud access security brokers (CASBs) and data loss prevention (DLP) to secure data in cloud environments.
- Security Information and Event Management (SIEM): Using SIEM tools to aggregate and analyze security data from various sources, identifying potential threats and providing insights for improved security posture.

Physical infrastructure/data Center services:

The physical infrastructure/data center services segment forms the backbone of the IT infrastructure sector. It focuses on providing the physical foundation and associated services to house and manage the critical IT equipment that powers our digital world

Services and Solutions:

- **Colocation:** Organizations rent space and power within a data center provider's facility to house their IT equipment. This offers cost-efficiency, scalability, and access to advanced infrastructure.
- **Managed Hosting:** Service providers manage and maintain IT infrastructure on behalf of an organization, including servers, storage, network equipment, and operating systems. This frees up internal resources and expertise.
- **Disaster Recovery:** Providers offer backup data centers and infrastructure to ensure business continuity in case of outages or disruptions at the primary location.
- **Cloud Data Center Services:** This encompasses various cloud deployment models (public, private, and hybrid) where infrastructure elements like servers, storage, and networking are delivered as a service.
- **Edge Computing Services:** Infrastructure deployed closer to where data is generated (e.g., factory floor, retail store) to process and analyze data locally, minimizing latency and improving performance.

Trends Shaping the Segment:

- **Hyperscale Data Centers:** Growing demand for large, scalable data centers capable of supporting massive computing workloads, often driven by cloud providers and large enterprises.
- **Edge Computing Adoption:** The rise of IoT and real-time applications necessitates processing data closer to its source, leading to increased adoption of edge computing services.
- **Green and Sustainable Data Centers:** Growing focus on reducing the environmental impact of data centers through energy-efficient technologies, renewable energy sources, and innovative cooling solutions.

IT Infrastructure Management Services

IT Infrastructure Management Services (IMS) encompass a range of services focused on the planning, design, implementation, operation, and ongoing management of an organization's IT infrastructure. This includes hardware, software, networks, data centers, and the associated processes necessary to deliver reliable and efficient IT services. IMS are critical for ensuring the smooth operation, security, and optimization of the technical backbone that supports businesses in India's rapidly expanding digital economy.

Key Offerings	
Managed Data Center Services	• Colocation: Renting space and power in a data center to house IT equipment. Provides robust physical infrastructure and security. • Managed Hosting: Outsourcing the entire management of servers, storage, and networking equipment to a service provider. • Disaster Recovery as a Service (DRaaS): Backup and recovery sites, often in the cloud, to facilitate business continuity during unexpected disruptions.
Network Management Services	• Network Operations Center (NOC): Real-time monitoring, troubleshooting, and optimization of network performance and availability. • SD-WAN Management: Software-defined wide area network solutions for improved network flexibility and cost optimization. • Managed Security: Firewall management, intrusion detection, and security information and event management (SIEM) to protect networks from threats.
Cloud Infrastructure Services	• Infrastructure as a Service (IaaS): Provisioning of virtualized compute, storage, and network resources on demand. • Platform as a Service (PaaS): Cloud-based platforms for software development and deployment. • Software as a Service (SaaS): Cloud-delivered applications accessible over the internet. • Cloud Migration and Management: Assisting businesses to move workloads and applications to the cloud, along with ongoing optimization.

Transition in IT Infrastructure Industry

Cloud computing has revolutionized the way businesses manage their IT infrastructure. The shift from traditional on-premises setups to cloud-based models has fundamentally altered how IT resources are provisioned, managed, and consumed.

Traditional Hardware-Dominated Infrastructure

- Capital Expenditure (CapEx) model: Businesses had to invest heavily in procuring and maintaining physical IT infrastructure, including servers, storage, networking equipment, and data centers.
- Capacity Planning: Organizations needed to forecast their future needs, often overprovisioning resources to handle peak demand, leading to underutilized capacity.
- In-House Management: IT teams were responsible for the entire hardware and software lifecycle – procurement, deployment, maintenance, upgrades, and troubleshooting.
- Limited Scalability: Scaling IT resources up or down to match changing needs was often a time-consuming and expensive process.
- Security & Compliance Challenges: Ensuring robust security and meeting compliance standards in a traditional on-premises environment could be complex and demanding.

The Rise of Cloud Infrastructure

- Operational Expenditure (OpEx) model: The cloud introduced a pay-as-you-go approach where businesses pay for only the computing resources they use, converting IT costs into operational expenses.
- On-Demand Provisioning: Businesses can quickly provision resources as needed, without upfront investments or capacity planning concerns.
- Managed Services: Cloud providers handle much of the IT infrastructure management, including hardware maintenance, software updates, and security patching, freeing up internal IT resources.
- Rapid Scalability: Cloud infrastructure provides near-instant scalability to accommodate fluctuating workloads, eliminating the need for overprovisioning and supporting business agility.
- Enhanced Security & Compliance: Cloud providers invest heavily in advanced security measures and often offer compliance-ready solutions, easing the burden on organizations.

Driving Factors for Cloud Adoption

- Cost Savings: The pay-as-you-go model eliminates significant upfront capital expenditures and reduces ongoing IT management costs.
- Agility & Flexibility: Cloud allows businesses to experiment, innovate, and adapt quickly to market demands by readily scaling resources to support growth or new initiatives.
- Focus on Core Business: Reduced IT management burden allows organizations to focus on their core competencies and business goals.
- Accessibility: Cloud-based resources can be accessed from anywhere, enabling remote work and collaboration.

- Technological Advancements: Continuous innovation and improvements in cloud technology, such as microservices and containerization, offer greater flexibility and better performance.

Challenges and Considerations

- Vendor Lock-in: Migrating to the cloud can sometimes create potential dependency on a specific cloud provider, making switching difficult.
- Security & Privacy Concerns: While cloud providers implement robust security measures, some organizations still have reservations about storing sensitive data in the cloud.
- Regulatory Compliance: Understanding and adhering to compliance requirements specific to the cloud and the industry is crucial.
- Hybrid Cloud Landscapes: Many organizations adopt a hybrid cloud approach, blending on- premise infrastructure with cloud services, leading to increased complexity.

CONFIDENTIAL

Emerging Opportunities

Start-Up Segment and its Impact in IT Infrastructure Industry

India has emerged as a hub for technology start-ups in recent years, with a growing ecosystem fostering innovation and entrepreneurship. This surge in start-up activity has not only transformed the business landscape but also significantly impacted the IT infrastructure industry.

India's technology start-up ecosystem has witnessed exponential growth fueled by factors such as increasing internet penetration, availability of skilled talent, supportive government policies, and access to venture capital funding. Start-ups across various sectors including e-commerce, fintech, health tech, edtech, and SaaS have proliferated, leveraging technology to address diverse market needs.

The exponential growth of India's technology start-up ecosystem can be attributed to several key factors:

- **Increasing Internet Penetration:** This rise in internet connectivity has facilitated greater access to digital services, driving demand for innovative tech solutions.
- **Abundance of Skilled Talent:** India's vast pool of skilled talent, particularly in the fields of technology, engineering, and business, has been instrumental in fueling the growth of technology start-ups. The availability of qualified professionals has enabled start-ups to build robust teams and drive innovation across various sectors.
- **Supportive Government Policies:** The Indian government has introduced several initiatives and policies to support the growth of the start-up ecosystem, including Startup India, Make in India, and Digital India. These initiatives provide incentives, funding support, and regulatory frameworks to nurture and promote entrepreneurial ventures.
- **Access to Venture Capital Funding:** India has emerged as a lucrative destination for venture capital investment, attracting significant funding from domestic and international investors. According to S&P Global Market Intelligence, India ranked fourth globally in terms of venture capital investment, with the financial technology sector leading the funding charts.

India's start-up landscape has emerged as one of the largest and most dynamic in the world. As of 31 March 2026, the country was home to more than 2.23⁸ lakh DPIIT-recognised start-ups, with over 55,200 start-ups recognised in FY2025-26, the highest number recorded in a single year since the launch of the Startup India initiative in 2016. Recognised start-ups are present across all States and Union Territories, with Maharashtra, Karnataka, Uttar Pradesh, Delhi and Gujarat emerging as the leading regions by number of recognised start-ups. India is also recognised as the world's third-largest start-up ecosystem.

Impact On the IT Infrastructure Industry:

The rapid proliferation of technology start-ups has led to a surge in demand for robust IT infrastructure solutions. This demand is driven by several factors:

⁸ [Press Release Page](#) | [Press Information Bureau](#)

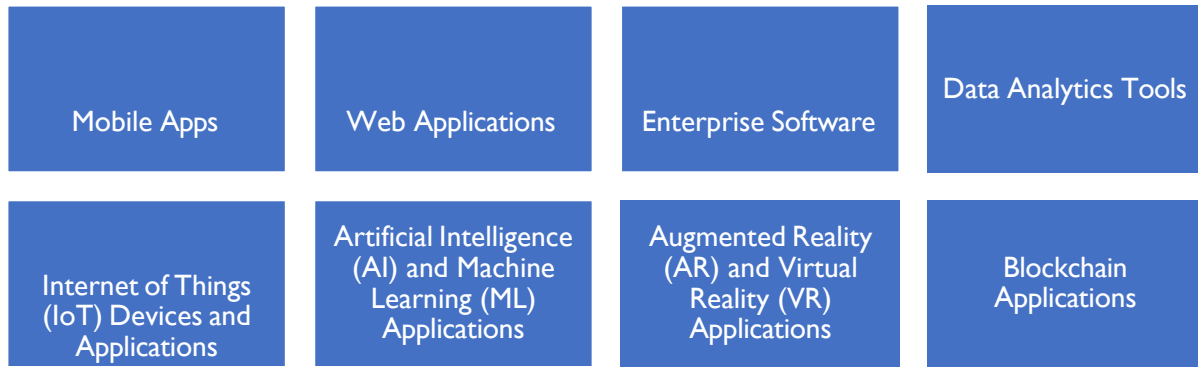
- **Cloud Adoption:** Start-ups, particularly those operating in the software-as-a-service (SaaS) domain, rely heavily on cloud computing for scalability, flexibility, and cost-efficiency. This has led to a significant increase in demand for cloud infrastructure services, prompting cloud providers to expand their data center footprint in India.
- **Edge Computing:** With the proliferation of IoT devices and the need for real-time data processing, edge computing has gained prominence. Start-ups leveraging IoT, AI, and machine learning require edge infrastructure to process data closer to the source, leading to investments in edge computing solutions.
- **Cybersecurity:** As start-ups handle sensitive customer data and intellectual property, cybersecurity has become a top priority. This has resulted in increased investments in cybersecurity infrastructure, including firewalls, threat detection systems, and encryption technologies.
- **Data Analytics:** Start-ups are increasingly relying on data analytics to gain actionable insights and drive decision-making. This has spurred demand for infrastructure capable of handling large volumes of data and performing complex analytics tasks, leading to investments in big data platforms and analytics tools.
- **DevOps and Automation:** Start-ups prioritize agility and rapid product development, driving the adoption of DevOps practices and automation tools. This has led to investments in infrastructure automation, continuous integration/continuous deployment (CI/CD) pipelines, and containerization technologies.
- **Remote Work Infrastructure:** The COVID-19 pandemic accelerated the adoption of remote work practices, prompting start-ups to prioritize remote-friendly infrastructure solutions. This includes robust networking infrastructure to support remote collaboration tools, virtual private networks (VPNs) for secure access to company resources, and cloud-based communication platforms. As start-ups continue to embrace remote work as a permanent or hybrid model, there is a growing demand for infrastructure solutions that enable seamless remote operations while ensuring data security and employee productivity. This shift towards remote work infrastructure presents both opportunities and challenges for the IT infrastructure industry, driving innovation in areas such as remote access technologies, virtualization, and endpoint security solutions.

The rise of technology start-ups in India has reshaped the IT infrastructure landscape, driving demand for innovative solutions that can support the dynamic needs of these companies. To capitalize on this trend, IT infrastructure providers must adapt their offerings to cater to the unique requirements of start-ups while addressing challenges such as scalability, cost, talent shortage, and cybersecurity. By embracing innovation and agility, the IT infrastructure industry can effectively support India's thriving start-up ecosystem and contribute to its continued growth and success.

New technology applications and its impact

Technology applications refer to software, tools, platforms, and systems developed to perform specific tasks, solve problems, or meet user needs using technological solutions. These applications leverage various technologies such as software development, hardware integration, data analysis, artificial intelligence, and internet connectivity to deliver value to users and organizations across different domains.

Examples of technology applications include:



Technology applications are utilized in both consumer and enterprise segments to meet various needs and objectives

Consumer Segment

- **Communication:** Consumers use technology applications such as messaging apps, social media platforms, and video conferencing tools for seamless communication and connectivity with friends, family, and peers.
- **Entertainment:** Streaming services, gaming apps, and virtual reality experiences provide consumers with entertainment and leisure options, enhancing their digital lifestyles.
- **E-commerce:** Online shopping platforms and mobile payment apps enable consumers to browse, purchase, and pay for products and services conveniently from the comfort of their homes.
- **Health and Wellness:** Health tracking apps, wearable devices, and telemedicine platforms empower consumers to monitor their health, access medical advice, and engage in fitness activities remotely.
- **Personal Finance:** Banking apps, budgeting tools, and investment platforms assist consumers in managing their finances, making transactions, and planning for the future.

Enterprise Segment

- **Operations Management:** Enterprises leverage technology applications such as enterprise resource planning (ERP) systems, inventory management software, and project management tools to streamline operations, optimize workflows, and enhance efficiency.
- **Customer Relationship Management (CRM):** CRM software enables businesses to manage interactions with customers, track sales leads, and analyze customer data to improve engagement and drive revenue growth.
- **Data Analytics:** Business intelligence (BI) tools, data visualization platforms, and predictive analytics software help enterprises analyze large volumes of data, gain insights, and make informed decisions to drive business outcomes.
- **Collaboration and Communication:** Enterprises utilize collaboration tools, video conferencing platforms, and project management software to facilitate teamwork, communication, and collaboration among employees, regardless of location or time zone.
- **Marketing and Sales:** Marketing automation software, customer relationship management (CRM) platforms, and digital marketing tools assist enterprises in reaching target audiences, generating leads, and driving sales through targeted campaigns and personalized messaging.

In India, there has been a notable surge in the adoption and proliferation of new technology applications across both consumer and enterprise segments. This growth is driven by several factors, including increasing internet penetration, rapid digitalization, and a burgeoning start-up ecosystem.

The surge in new technology applications, both in consumer and enterprise segments, has significant implications across various aspects of society and the economy. This growth signifies a transformative shift in how individuals and businesses interact, operate, and innovate. Following are the key implications of this phenomenon:

- **Enhanced Consumer Experiences:** New technology applications are revolutionizing consumer experiences across industries such as retail, entertainment, healthcare, and transportation. From personalized recommendations and immersive content to convenient digital services and seamless transactions, consumers are benefiting from greater convenience, efficiency, and customization.
- **Empowerment of Businesses:** For enterprises, the proliferation of new technology applications presents opportunities to streamline operations, optimize processes, and unlock new revenue streams. From advanced analytics and automation to cloud computing and IoT integration, businesses can leverage technology to enhance productivity, agility, and competitiveness in an increasingly digital marketplace.
- **Disruption and Innovation:** The rapid adoption of new technology applications is driving disruption and innovation across traditional industries, challenging existing business models and paving the way for novel approaches to value creation. Start-ups and established companies alike are harnessing emerging technologies such as artificial intelligence, blockchain, and augmented reality to create innovative solutions that address evolving market demands and customer preferences.
- **Economic Growth and Job Creation:** The growth of new technology applications fuels economic growth by stimulating investment, driving productivity gains, and fostering entrepreneurship. As new markets emerge and existing industries evolve, there is a corresponding increase in job opportunities across various skill levels, from software development and data analysis to digital marketing and customer experience management.
- **Societal Impacts:** Beyond the economic realm, the proliferation of new technology applications has profound societal implications, influencing how people communicate, collaborate, and interact with the world around them. From the democratization of information and digital inclusion to concerns about privacy, cybersecurity, and ethical use of technology, these developments shape the fabric of society and raise important ethical, legal, and social questions.

The growth of new technology applications represents a paradigm shift in how individuals, businesses, and society as a whole engage with technology and navigate the digital landscape. By understanding and harnessing the potential of these technologies, stakeholders can unlock opportunities for innovation, growth, and positive societal impact in the digital age.

India's Emergence as a Global Capability Center (GCC) Hub

In recent years, India has emerged as a key hub for multinational companies establishing their Global Capability Centres (GCCs). With over 1,700 GCCs operating in the country and employing more than 1.9 million people, India's prominence in the global business landscape has significantly grown. This write-up delves into the factors driving this emergence, the evolution of GCCs in India, key industry verticals, growth projections, and the transformative impact on the economy.

Evolution of GCCs in India

The journey of GCCs in India dates to the 1980s when pioneering companies like Texas Instruments set up their offices in Bengaluru. Originally known as captives or GICs (global in-house centres), these entities have evolved significantly over the years, transitioning into sophisticated GCCs. By 2012, the number of GICs had surpassed 760, and today, India hosts over 1,700 GCCs, a testament to its attractiveness as a strategic destination for global operations.

Several factors contribute to India's appeal as a preferred destination for establishing GCCs:

- **Abundance of Skilled Talent:** India boasts a vast talent pool of 2.5 million people with diverse skill sets, particularly in software product engineering. This futuristic talent pool is not only technically proficient but also possesses a strong work ethic and innovative mindset, essential for driving business growth and competitiveness.
- **Cost-Competitive Operations:** India offers competitive operational costs without compromising on quality standards. This cost advantage, coupled with high-quality services, makes it an attractive proposition for multinational companies seeking to optimize their operational expenses.
- **Strategic Geographic Location:** India's strategic geographic location allows for easy management of satellite operations for neighbouring countries and beyond. This facilitates seamless coordination and enhances operational efficiency for multinational corporations.
- **Culture of Innovation:** The Indian tech ecosystem is characterized by a culture of innovation, fostering creative problem-solving and adaptability. This culture enables GCCs to drive cutting-edge innovations and stay ahead in today's dynamic business environment.
- **Market Access and Growth Opportunities:** With a large domestic market and significant opportunities for further growth and market penetration, India provides GCCs with a platform for expanding their business footprint and tapping into diverse market segments.

Key Industry Verticals in GCC and Growth Trajectory

GCCs in India operate across various service lines, including IT services, BPO, engineering services, and software product development. Over the years, they have ascended the value chain, delivering complex work that requires a deep understanding of business context and imperatives. Key industry verticals such as banking and financial services, software, telecom, semiconductor, aerospace, automotive, healthcare, and pharma have witnessed substantial growth driven by GCCs' contributions.

In India, several multinational companies have established Global Capability Centres (GCCs) to drive innovation and operational efficiency. Below are examples of three such companies:

AstraZeneca's Virtual Reality Solution:

AstraZeneca's Global Innovation and Technology Centre in Chennai showcases the innovative potential of GCCs in India. By leveraging virtual reality (VR) technology, AstraZeneca has developed an immersive digital replica of its drug production facility in Sweden. This virtual environment allows employees to undergo training and familiarize themselves with the production processes without physically being present on the assembly line.

Developed entirely by AstraZeneca's captive unit in India, this VR solution not only enhances training effectiveness but also saves the pharmaceutical giant significant costs associated with traditional training methods. By harnessing the

technical expertise and innovation capabilities of its GCC in India, AstraZeneca demonstrates how GCCs contribute to driving efficiency, innovation, and cost savings for multinational corporations.

Rakuten Group's Bengaluru GCC:

Rakuten Group, a Japanese conglomerate, has established its Global Capability Centre in Bengaluru. This GCC plays a crucial role in developing and managing digital payment platforms, including Rakuten Pay, which is Japan's equivalent of GooglePay. The Bengaluru GCC oversees the entire product lifecycle, from user experience (UX) design to backend development and strategic planning. By leveraging India's vast talent pool and tech expertise, Rakuten Group's GCC has not only created innovative digital payment solutions but also contributed to the company's strategic goals. The success of Rakuten Pay underscores the pivotal role played by GCCs in driving digital transformation and enhancing customer experiences for multinational corporations.

Lowe's Self-Checkout System:

Lowe's, a US-based home improvement retailer, has leveraged its GCC in Bengaluru to develop a robust self-checkout system for its stores. This system, developed in-house at a fraction of the cost of vendor products, has significantly increased the efficiency of transactions at Lowe's stores. With the GCC's expertise in software development and engineering services, Lowe's has successfully implemented innovative solutions to streamline operations and enhance customer satisfaction. The success of the self-checkout system highlights how GCCs in India contribute to driving operational excellence and cost optimization for multinational corporations across diverse industry verticals.

According to projections by NASSCOM, the GCC landscape in India is set to expand further in the coming years. By 2030, the total number of GCCs is expected to surpass 2,400, with revenue exceeding USD 100 billion. Cost savings are no longer the main driving force behind companies' decisions to operate in India. Instead, a combination of skilled talent, a vibrant startup environment, and a digitally savvy industry and customer base is drawing companies to the country.

Impact on IT Infrastructure spending

The emergence of India as a Global Capability Centre (GCC) hub has had a profound impact on IT infrastructure spending, both within the country and globally. This impact can be observed across various dimensions:

- **Increased Investment in IT Infrastructure in India:** As multinational companies establish their GCCs in India, there is a growing need for robust IT infrastructure to support their operations. This includes investments in data centers, networking equipment, cloud computing services, cybersecurity measures, and software development tools. The influx of GCCs has led to a surge in demand for advanced IT infrastructure solutions and services, prompting organizations to allocate significant budgets for infrastructure development and upgrades. The latest NASSCOM-Zinnov analysis highlights the continued expansion of India's GCC ecosystem, which has grown by 32% since FY2021 to more than 2,100 GCCs. The report indicates that enterprises are increasingly investing in India as a strategic innovation hub, with 96% of GCCs established after FY2021 launching with a product or portfolio mandate and nearly 50% operating at a high level of organizational maturity. The growing focus on AI, digital engineering, product ownership, and global leadership roles underscores India's emergence as a key location for enterprise transformation and innovation rather than merely a destination for cost-efficient operations.

- **Adoption of Emerging Technologies:** GCCs in India often focus on driving innovation and digital transformation within their parent organizations. This entails the adoption and implementation of emerging technologies such as artificial intelligence (AI), machine learning (ML), Internet of Things (IoT), blockchain, and advanced analytics. Consequently, there is a heightened emphasis on investing in IT infrastructure that can support these technologies, including high-performance computing systems, storage solutions, and specialized hardware accelerators.
- **Expansion of Data Center Footprint:** The growing presence of GCCs in India has led to an expansion of data center infrastructure to accommodate the increasing volume of data generated and processed by these centers. Organizations are investing in building new data centers or expanding existing ones to ensure scalability, reliability, and compliance with regulatory requirements. Additionally, there is a trend towards adopting hybrid and multi-cloud strategies, necessitating investments in cloud infrastructure and management platforms.
- **Focus on Security and Compliance:** With the rising cyber threats and stringent regulatory requirements, there is a heightened focus on enhancing cybersecurity measures and ensuring compliance with data protection regulations. Organizations operating GCCs in India are investing in advanced security solutions such as intrusion detection systems, threat intelligence platforms, encryption technologies, and identity and access management solutions. Moreover, there is an increased emphasis on implementing robust data privacy and compliance frameworks to safeguard sensitive information and mitigate risks.
- **Collaboration and Connectivity Requirements:** The seamless collaboration between GCCs in India and their parent organizations worldwide necessitates investments in robust connectivity infrastructure. This includes high-speed internet connectivity, virtual private networks (VPNs), unified communications platforms, and collaboration tools. Organizations are leveraging technologies such as software-defined networking (SDN) and edge computing to optimize network performance, ensure low-latency communications, and support real-time collaboration across geographically distributed teams.
- **Economic Impact on IT Infrastructure Providers:** The growing demand for IT infrastructure solutions and services driven by the proliferation of GCCs in India presents significant opportunities for IT infrastructure providers, including hardware vendors, cloud service providers, network equipment manufacturers, and cybersecurity firms. These providers stand to benefit from increased demand for their products and services, leading to revenue growth and market expansion.

In conclusion, India's emergence as a GCC hub highlights its growing significance in the global business ecosystem. With a conducive business environment, abundant talent pool, cost-competitive operations, and culture of innovation, India offers a compelling value proposition for multinational companies seeking to establish GCCs. As the GCC landscape continues to evolve and expand, India is poised to remain at the forefront of this transformation, driving economic growth, innovation in Information technology, and market leadership in the years to come.

Evolving Data security / Cybersecurity Landscape in India

In recent years, India has witnessed significant changes in its data security and cybersecurity landscape driven by technological advancements, regulatory reforms, and evolving cyber threats. India's digital transformation journey has accelerated, leading to a massive proliferation of data across various sectors such as finance, healthcare, e-commerce, and government services. The widespread adoption of digital technologies, including cloud computing, IoT, and mobile devices, has exponentially increased the volume, velocity, and variety of data being generated, posing new challenges for data security and cybersecurity.

Current Challenges for Organizations in India

- **Rise in Cyberthreats:** The proliferation of cyber threats has surged in the digital era, underscoring the critical importance of cybersecurity. India is confronted with a broad spectrum of cyber threats, ranging from financial fraud and data breaches to sophisticated cyber-espionage campaigns.
- **Diverse Attack Techniques:** Given its expansive population, India has become a focal point for cybercriminals who employ various attack techniques such as phishing, ransomware, and social engineering tactics to exploit vulnerabilities.
- **Targeted Sectors:** Key sectors including financial institutions, e-commerce platforms, and government entities are particularly targeted due to the sensitive nature of their data, amplifying the need for robust cybersecurity measures.
- **Ransomware Surge:** A notable surge in ransomware incidents has resulted in significant disruptions to businesses, lasting from a few days to several weeks, further emphasizing the evolving and pervasive nature of cyber threats.

Response to Cyberattacks

- Amidst the rising tide of cyber threats, India's cybersecurity landscape is witnessing a robust response, with various stakeholders including businesses, individuals, and governmental bodies collaborating to fortify their digital defenses.
- A notable initiative involves the collaboration between national security agencies and the Defence Cyber Agency, engaging in rigorous cyber defense exercises to enhance preparedness and resilience. Additionally, the Union Home Ministry has established a dedicated helpline to assist individuals affected by cyber scams, aiming to swiftly block stolen funds, refund victims within 24 hours, and raise awareness about the importance of safeguarding sensitive information online.
- In August 2023, the government enacted the Digital Personal Data Protection (DPDP) Act, 2023, a landmark cross-sectoral legislation aimed at safeguarding personal data amidst concerns of heightened surveillance. This legislative milestone has bolstered confidence among multinational corporations operating in India.
- Further demonstrating proactive measures, initiatives like the National Counter Ransomware Task Force underscore India's commitment to countering specific threats like ransomware. Collaborative efforts, such as the formation of the International Counter Ransomware Task Force, exemplify India's willingness to collaborate globally for enhanced cybersecurity.

- Concurrently, Indian businesses and individuals are taking proactive steps against cyber threats by enrolling in online courses offered by institutions like the Defence Research and Development Organisation, focusing on cybersecurity and AI education to bolster their expertise.
- The deployment of innovative tools such as USB Pratirodh and AppSamvid, aimed at providing enhanced control and protection against malware, reflects India's tech-driven approach to cybersecurity. Additionally, breakthrough solutions like the Artificial Intelligence and Facial Recognition-powered Solution for Telecom SIM Subscriber Verification (ASTR) showcase India's technological advancements in combatting fraudulent activities in the cybersecurity domain.

Impact on IT Sector

Increased Spending on IT Infrastructure: With the escalating cyber threats, organizations are compelled to invest more in strengthening their IT infrastructure to safeguard against potential breaches and cyber-attacks. This surge in spending on IT infrastructure encompasses the implementation of robust cybersecurity measures, including advanced threat detection systems, encryption technologies, and secure network architecture.

Growing Demand for Cybersecurity Solutions and Services: The heightened awareness of cybersecurity risks has fuelled a surge in demand for cybersecurity solutions and services across various industries. This increased demand encompasses a wide range of cybersecurity offerings, including threat intelligence platforms, endpoint security solutions, penetration testing services, and security consulting services. As a result, cybersecurity providers are witnessing a significant uptick in business opportunities and revenue growth.

Rise in Cybersecurity Jobs and Skill Development: The evolving cybersecurity landscape has created a growing demand for skilled professionals capable of combating sophisticated cyber threats. Consequently, there is a surge in cybersecurity job opportunities across the country, ranging from cybersecurity analysts and engineers to ethical hackers and incident responders. This increased demand for cybersecurity talent has prompted organizations and educational institutions to invest in cybersecurity training and skill development programs to bridge the skills gap and groom the next generation of cybersecurity professionals.

Emphasis on Regulatory Compliance and Data Protection: The enactment of regulatory reforms such as the Digital Personal Data Protection (DPDP) Act, 2023, has heightened the focus on regulatory compliance and data protection among organizations operating in India. Companies are now mandated to adhere to stringent data protection requirements and implement comprehensive data security measures to ensure compliance with regulatory standards. This emphasis on regulatory compliance has spurred investments in data protection technologies and compliance frameworks to mitigate regulatory risks and safeguard sensitive customer information.

Rise in Cyber Insurance Adoption: As organizations recognize the financial implications of cyber incidents, there is a growing trend towards the adoption of cyber insurance policies to mitigate the financial impact of cyber attacks and data breaches. Cyber insurance policies provide organizations with financial protection against the costs associated with data breaches, including legal expenses, regulatory fines, and incident response costs. This rise in cyber insurance adoption reflects a proactive approach towards managing cyber risks and enhancing financial resilience in the face of cyber threats.

Government Spending on Information Technology

Despite the signs of contraction in technology spending in private sector, spending trend in public domain is showing signs of resilience. The positive trend in IT spending in public space is driven by two key factors – IT modernization initiatives and digitization measures to improve productivity. This is in line with the trend seen in Government spending across the world, with investments in application modernization driving the spending.

Specific to Indian Government, the focus is on providing a unified digital experience and a mobile first experience. Schemes like Unified Mobile Application for New-Age Governance (UMANG), Open Government Data Platform (OGDP) and IndiaStack are designed to achieve this objective. Among these, the IndiaStack program is focused on creating a unified software platform to fast track the digital journey of Indian population. IndiaStack has five programs: Aadhar, e-KYC, e-Signature, Digital Locker, and Unified Payment Interface (UPI). These five programs together are transforming the digital landscape in India.

CONFIDENTIAL

IT Modernization Journey in Indian Public Domain

2006 – 2010	Early Initiatives & Foundation Building	Launch of National e-Governance Plan (NeGP) to improve Government services through integration of IT. Introduction of MeghRaj initiatives – National Cloud Computing Infrastructure
2011-2015	Transition to Digital Platform	Launch of Digital India campaign Introduction of Aadhaar program
2016 – 2020	Accelerated Modernization & Integration of Emerging Technologies	Implementation of GST, and subsequently the creation of GST Network (GSTN) Cloud adoption gains momentum National Artificial Intelligence Strategy to promote responsible & ethical use of AI
2021 – 2024	Focus on digital inclusion & citizen centric services	Expansion of broadband connectivity, promoting digital inclusion in rural areas.

Government Flagship Digital Policies

While digitization of common citizen services has improved operational efficiencies as well as service delivery, it has generated massive data necessitating the requirement for a robust and flexible digital infrastructure. Subsequently the Government has scaled up its spending and budgetary allocation towards digital infrastructure updation, and adoption of cloud infrastructure.

Digital India Initiative

The Government of India's Digital India programme has emerged as a foundational pillar of the country's digital transformation agenda, driving large-scale adoption of digital public infrastructure and citizen-centric services. Since its launch in 2015, the initiative has enabled widespread digitization across governance, financial services, healthcare, education, and public service delivery. As part of its continued commitment, the Union Cabinet approved the expansion of the Digital India programme with an additional outlay of INR 14,903 crore for the period FY2022-FY2026. The expanded programme focuses on digital infrastructure modernization, cybersecurity enhancement, AI adoption, digital skilling, and strengthening citizen service platforms. The scale of Digital India's impact has grown significantly over the last decade. As of 2025, **DigiLocker serves more than 53 crore users**, while **UMANG provides access to over 2,300 government services across 23 languages**. Internet connectivity has expanded from 25.15 crore connections in 2014 to nearly 97 crore connections in 2024, providing the foundation for large-scale digital service delivery. The Government is also expanding initiatives such as Bhashini, National Knowledge Network modernization, AI Centres of

Excellence, and digital document verification services, further accelerating the use of cloud-enabled and data-intensive applications across public services.

Adoption of Hybrid Cloud Model

Rapid digitization of citizen services has created massive volume of data, with varying sensitivity levels. This has created the need for a hybrid cloud strategy, which provides both flexibility as well as enhanced data security. The hybrid cloud model has facilitated initiatives such as the MyGov Saathi app, engaging over 2.5 crore users. Additionally, entities like the IT Regulators of India and the Development Authority of Maharashtra leverage hybrid cloud models for government-to-consumer operations.

The Government of India has embraced a cloud-first approach, aiming to make it the default option for ministries/departments to enhance citizen-centric services and internal efficiency. The introduction of MeghRaj in 2013 facilitated cloud technology benefits within the government sector, leading numerous ministries/departments to initiate their cloud journey. Despite progress, some entities hesitate due to concerns like data security, control after migration, data loss, and application compatibility. Central and state governments are actively promoting cloud awareness.

Impact on IT infrastructure

The most direct benefit is a surge in demand for IT infrastructure solutions. Government projects often involve large-scale data center upgrades, network expansion, and cloud adoption, all of which require robust hardware, software, and implementation services. This translates to increased revenue and project opportunities for IT infrastructure providers.

The government's initiatives often involve implementing advanced technologies like cloud computing, Big Data analytics, and cybersecurity solutions. This pushes IT infrastructure providers to innovate and offer new solutions, keeping them at the forefront of technological advancements. Government IT projects tend to be large-scale and often involve multi-year contracts. This provides stability and recurring revenue for infrastructure providers, allowing them to invest in research and development and expand their capabilities.

Increased Demand for Products and Services:

- **Hardware:** Increased spending translates to a greater demand for hardware components like servers, storage solutions, networking equipment, and security solutions. This creates a larger market for companies that manufacture, sell, and maintain these products.
- **Software:** Government projects often require specialized software solutions for data management, analytics, communication, and cybersecurity. This opens doors for software providers who can cater to these specific needs.
- **Services:** Implementation, integration, and management of these complex IT systems require expertise. IT infrastructure providers benefit by offering services like system design, deployment, data center management, and ongoing maintenance.

Focus on Emerging Technologies:

- **Cloud Adoption:** The government's push for cloud migration creates a demand for cloud service providers (CSPs) who offer public, private, or hybrid cloud solutions. This benefits companies like Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP) along with domestic players.
- **Cybersecurity Solutions:** As the government stores and manages more data, robust cybersecurity measures become crucial. This creates opportunities for companies specializing in network security, data encryption, and intrusion detection systems.

Project Opportunities:

- **Large-Scale Infrastructure Projects:** Government initiatives like "Digital India" and "Smart Cities Mission" involve building large-scale IT infrastructure like data centers, fiber optic networks, and citizen service platforms. These projects provide lucrative contracts for IT infrastructure providers who can design and build these networks.
- **Specialization and Innovation:** Government projects often have unique requirements, prompting infrastructure providers to develop specialized solutions and niche expertise. This fosters innovation within the sector and allows companies to differentiate themselves.

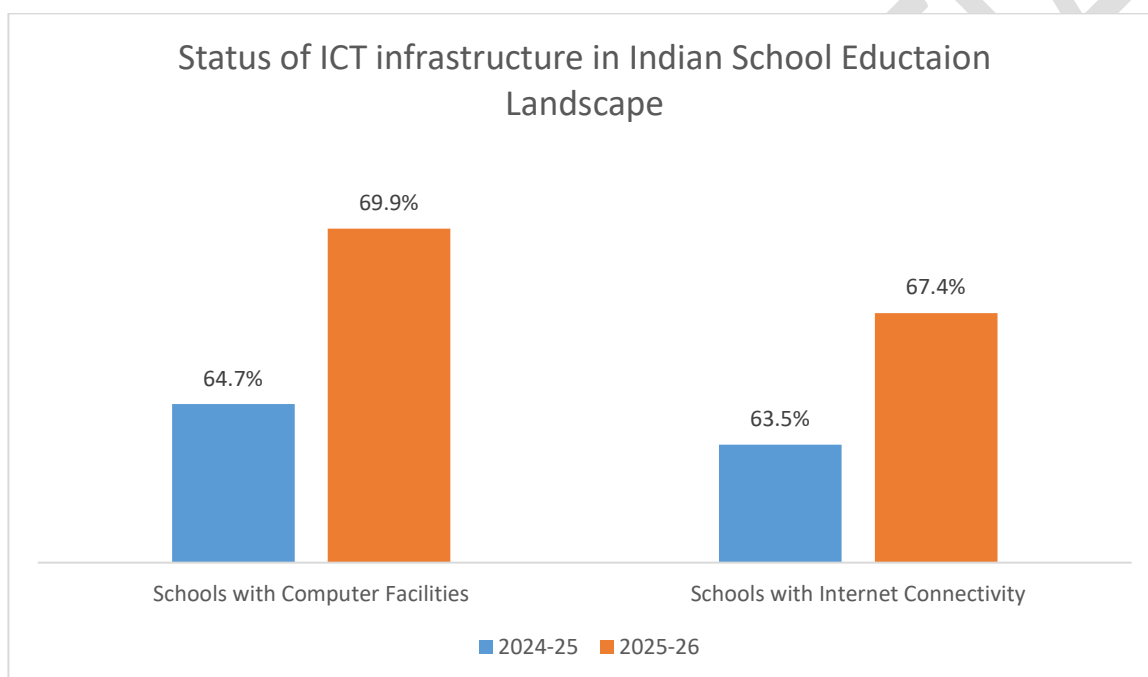
CONFIDENTIAL

IT Infrastructure Modernization in Public Education Sector

The rapid growth in internet penetration in the country have facilitated the integration of ICT into public education domain. The development of digital infrastructure has helped in improving the access to education specifically among rural population. The Union Government have implemented a range of policy initiatives to leverage the ICT infrastructure. These include Digital Infrastructure for Knowledge Sharing (DIKSHA) platform, and initiatives by various state Governments to popularity virtual classroom & digital learning.

Current Scenario

According to the Ministry of Education's UDISE+ 2025-26 Report⁹, digital infrastructure in Indian schools continued to strengthen, with 69.9% of schools equipped with computer facilities and 67.4% having internet connectivity. The steady improvement reflects the government's ongoing efforts to integrate technology into classrooms, support digital learning, and expand access to online educational resources



Source: Union Ministry of Education Releases the Report on Unified District Information System for Education Plus (UDISE+) 2025-

26

Government Schemes Promoting ICT Infrastructure in Education Sector

Samagra Shiksha Scheme:

- The ICT and Digital Initiatives component under Samagra Shiksha supports Government and Government-aided schools from Classes VI to XII by providing financial assistance for the establishment of ICT Labs and Smart Classrooms. Schools that have not previously received ICT support may opt for either ICT Labs or Smart Classrooms, while schools with existing ICT infrastructure can avail additional Smart Classrooms. The scheme continues to be one of the key interventions for strengthening digital learning infrastructure in line with

⁹ [Press Release Page](#) | [Press Information Bureau](#)

Recent Progress and Achievements

- As of May 2025, a total of 146,040 Smart Classrooms had been approved across India under the Samagra Shiksha scheme, significantly expanding access to technology-enabled learning environments in schools. The scheme provides a non-recurring grant of INR 2.40 lakh per school for establishing two Smart Classrooms, along with an annual recurring grant of INR 38,000 for digital content, electricity, and related operational expenses. Under the ICT Labs component, schools can receive a **non-recurring grant of up to INR 6.40 lakh** and an annual recurring grant of **up to INR 2.40 lakh** per school for five years to support hardware, software, connectivity, maintenance, and ICT instructors. To strengthen digital learning capabilities at the primary level, the Government has sanctioned **1.48 million tablets (14,82,565 TABs)** for teachers under the Learning Recovery Package introduced through Samagra Shiksha. The scheme, extended through **FY2025-26**, covers approximately **1.16 million schools, 156 million students, and 5.7 million teachers** across Government and aided institutions, making it the largest school education programme in the country.

PM e-VIDYA

The National Mission on Education through Information and Communication Technology (NMEICT) has been conceptualized as a Centrally Sponsored Scheme aimed at harnessing the potential of ICT to enhance the teaching and learning process for learners in Higher Education Institutions, accessible anytime and anywhere. Its primary objective is to narrow the digital gap, which refers to the disparity in the ability to utilize computing devices for educational purposes among urban and rural teachers/learners in higher education.

In response to the directives outlined in the National Education Policy 2020, which emphasize investment in digital infrastructure and innovative teaching methodologies, the government launched a comprehensive initiative known as PM e-VIDYA on May 17, 2020, as part of the Atma Nirbhar Bharat Abhiyaan. This initiative aims to consolidate all endeavors related to digital, online, and on-air education, facilitating multi-mode access to educational resources.

PM e-VIDYA offers a diverse range of educational resources and platforms to students across all states, free of cost. These resources include digital infrastructure, online teaching platforms and tools, virtual laboratories, digital repositories, online assessments, and technology and pedagogy for online teaching- learning. Additionally, PM e-VIDYA promotes multilingualism and recognizes the importance of language in teaching and learning by employing innovative and experiential teaching methods.

Through the PM e-VIDYA initiative, the government seeks to democratize access to education, ensuring that all students have equitable opportunities to engage with high-quality educational content regardless of their geographical location or socio-economic background.

Digital University

Government of India in its Budget 2022-2023 has announced establishment of Digital University. The University will provide access to students across the country for world-class quality universal education with personalized learning experience at their doorsteps. This will be made available in different Indian languages and Information & Communication Technology (ICT) formats.

The University will be built on a networked hub-spoke model, with the hub building cutting edge ICT expertise. The best public universities and institutions in the country will collaborate as a network of hub-spokes. The Department of Higher Education, in consultation with University Grants Commission (UGC), All India Council for Technical Education (AICTE) and other stakeholders has initiated the process to ensure the early start of this digital university

One Nation One Subscription

The **One Nation One Subscription (ONOS)** scheme, approved by the Union Cabinet in November 2024, is a landmark initiative aimed at democratizing access to global scholarly research across India's higher education and research ecosystem. Under the scheme, nearly **6,400 higher educational institutions and central government R&D institutions** are provided access to over **13,000 international journals published by 30 leading global publishers**, benefiting approximately **1.8 crore students, researchers, and faculty members**.

Implemented by the **Information and Library Network (INFLIBNET) Centre** under the University Grants Commission (UGC), the scheme consolidates multiple institutional subscriptions under a unified national framework, enabling equitable access to scientific and academic literature across disciplines including science, technology, engineering, medicine, social sciences, management, and humanities.

The initiative is expected to significantly strengthen India's research and innovation ecosystem, particularly for institutions in Tier-2 and Tier-3 cities that previously had limited access to high-quality scholarly resources. Aligned with the objectives of **Atmanirbhar Bharat, Viksit Bharat @ 2047**, and the **Anusandhan National Research Foundation (ANRF)**, ONOS seeks to enhance the quality, accessibility, and global competitiveness of Indian research while fostering a more inclusive knowledge ecosystem.

STEM Lab Infrastructure in Indian Education Sector

The integration of STEM (Science, Technology, Engineering, and Mathematics) labs in the Indian education system represents a transformative shift towards experiential and skill-based learning. STEM labs empower students to engage with real-world problems, explore solutions, and acquire critical thinking skills through hands-on activities. Here's an in-depth analysis of STEM lab infrastructure in India, highlighting the current scenario, components, key drivers, challenges, and outlook.

Current Scenario

K-12 Education

In the K-12 segment, schools across India are gradually embedding STEM labs into their curriculum to provide students with practical exposure to scientific concepts. Private schools lead the adoption curve, incorporating advanced equipment such as robotics kits, coding tools, and 3D printers to make science and technology engaging. These facilities encourage students to explore and innovate beyond textbooks.

Government schools, although relatively slower in implementation, have benefited significantly from initiatives like the Atal Tinkering Labs (ATLs) under the Atal Innovation Mission. With over 10,000 ATLs established across India, these labs serve as a bridge to STEM education for underserved regions. By enabling students to work on projects related to AI, IoT, and other futuristic technologies, these labs are transforming how rural and underprivileged students perceive and engage with STEM subjects.

Higher Education

STEM labs in higher education institutions cater to advanced research and industry needs. Universities and colleges are setting up specialized facilities focusing on areas such as artificial intelligence, biotechnology, and robotics. These labs provide students with the tools and platforms to work on real-world problems and prepare them for industry roles.

Collaborations between academia and industry are another hallmark of STEM education in higher education. Through partnerships, institutions are establishing Centers of Excellence, which provide students with access to cutting-edge technologies and methodologies used in industry. For instance, tech companies like Intel and Microsoft have collaborated with educational institutions to provide hands-on training and exposure to practical challenges.

Infrastructure Components

Physical Space

A well-designed STEM lab begins with a dedicated physical space that prioritizes safety, functionality, and creativity. These labs typically include well-ventilated rooms with modular furniture, allowing students to reconfigure the workspace for group activities or individual projects. Safety measures such as fire extinguishers, first aid kits, and proper electrical setups are essential to ensure a secure environment for experimentation.

Equipment and Tools

STEM labs are equipped with a wide range of tools to cater to varying levels of complexity. For younger students, basic kits for electronics, mechanics, and coding are common, introducing foundational concepts in a hands-on manner.

Advanced setups for older students or higher education may include 3D printers, AI development tools, IoT devices, and simulation software for engineering or design projects. These tools enable students to prototype and test their ideas effectively, bridging theoretical learning and practical application.

Digital Integration

The integration of digital tools is redefining STEM labs, making them more interactive and accessible. Cloud-based platforms allow students to store and access their projects remotely, while AI-driven tools provide personalized learning experiences. Technologies like Virtual Reality (VR) and Augmented Reality (AR) are being introduced to create immersive learning environments. For example, VR can simulate engineering tasks, and AR can help visualize molecular interactions in chemistry, enhancing understanding and engagement.

Key Drivers

Government Initiatives

The Indian government has been a driving force behind the growth of STEM lab infrastructure. Programs such as the **Atal Innovation Mission** focus on nurturing innovation and creativity among students by setting up ATLs in schools. Similarly, the **Rashtriya Avishkar Abhiyan** integrates STEM subjects into school curriculums, promoting inquiry-based learning. The **National Education Policy (NEP) 2020** emphasizes hands-on and experiential learning, advocating for the introduction of coding, robotics, and computational thinking from early grades. These initiatives collectively aim to make STEM education a cornerstone of the Indian education system.

Corporate Social Responsibility (CSR)

Corporations have been instrumental in supporting STEM labs through their CSR initiatives. Companies like TCS, Infosys, and Intel have contributed funding, resources, and training for setting up labs, especially in underserved areas. For example, TCS has funded STEM labs in rural schools, while Intel provides advanced training and equipment to schools and colleges. These efforts not only bridge resource gaps but also foster industry-academic collaboration, enhancing the quality of STEM education.

Technological Advancements

The declining costs of tools like Arduino kits, Raspberry Pi boards, and 3D printers have made it easier for schools and colleges to adopt STEM labs. Affordable, user-friendly technology has democratized access to innovation, enabling even small schools to provide hands-on experiences in areas like coding, robotics, and design. This trend has been a significant enabler of STEM lab expansion across different tiers of institutions.

Rising Demand for STEM Skills

With industries increasingly relying on technology, there is a growing demand for STEM-skilled professionals. STEM labs help bridge the gap between academic learning and industry expectations, ensuring students are well-prepared for future roles. Employers across sectors value hands-on experience and problem-solving skills, which STEM labs effectively nurture.

Key Challenges

Funding Issues: Many government schools, particularly in rural areas, lack the financial resources required to establish and sustain STEM labs. While government schemes and CSR initiatives help mitigate this, the scale of funding needed to ensure widespread access remains a significant hurdle.

Shortage of Skilled Educators: STEM labs require educators who are not only subject matter experts but also adept at using advanced tools and fostering innovation. However, there is a considerable shortage of such trained professionals. Frequent teacher turnover and limited professional development programs exacerbate the issue, leaving many STEM labs underutilized.

Maintenance and Upkeep: Advanced equipment in STEM labs requires regular maintenance and technical expertise, which many schools lack. Without proper upkeep, the functionality of the labs diminishes over time, impacting their effectiveness.

Accessibility Disparities: There is a stark divide in the accessibility of STEM labs between urban and rural areas. While urban schools enjoy better resources and support, rural schools often struggle with basic infrastructure, making it challenging to establish and sustain STEM labs.

Prospects / Outlook

Increased Adoption: Driven by government mandates and the rising importance of technology in education, more schools and colleges are expected to adopt STEM labs. This trend is likely to accelerate as stakeholders recognize the value of hands-on learning in fostering innovation and critical thinking.

EdTech Collaborations: EdTech startups like BYJU'S and STEMPedia are playing a pivotal role in enhancing STEM education. These collaborations bring innovative tools, digital resources, and training programs to schools, enriching the STEM learning experience.

Inclusive Growth: Focused efforts by NGOs, government subsidies, and CSR initiatives are working towards bridging the rural-urban divide in STEM lab access. Ensuring that marginalized communities benefit from STEM education is a priority for stakeholders.

AI and AR/VR Integration: Emerging technologies like AI, AR, and VR are set to revolutionize STEM labs by providing immersive, real-time simulations. These technologies make abstract concepts tangible, allowing students to experiment and learn in an engaging environment.

Upskilling Educators: Comprehensive training programs for teachers will ensure that educators can effectively utilize STEM labs. Certification programs and workshops focused on using advanced tools and fostering innovation will play a key role in addressing the shortage of skilled teachers.

STEM lab infrastructure in India is at the cusp of a major transformation. With collaborative efforts from the government, private sector, and educational institutions, these labs are paving the way for a technology-driven, innovation-led education system. Addressing challenges such as funding, accessibility, and skilled educators will be crucial for ensuring widespread adoption and sustainability. As these labs evolve with advanced technologies and inclusive policies, they hold the potential to redefine India's education landscape, preparing students to excel in a rapidly changing global environment.

Atal Tinkering Labs (ATL)

The Atal Innovation Mission, with its vision to nurture one million young innovators across India, is establishing Atal Tinkering Laboratories (ATLs) in schools. This initiative aims to promote curiosity, creativity, and imagination while equipping students with essential skills such as computational thinking, design mindset, and physical computing.

ATLs serve as dedicated workspaces where students can explore STEM (Science, Technology, Engineering, and Mathematics) concepts through hands-on, do-it-yourself activities. Equipped with educational kits, tools for robotics, electronics, open-source microcontroller boards, sensors, 3D printers, and computers, ATLs provide a platform for experiential learning. Additional facilities like meeting rooms and video conferencing enhance collaboration and communication.

The program also encourages innovation through activities such as competitions, exhibitions, workshops, and lecture series. These engagements aim to foster critical thinking, problem-solving, and ethical leadership among students, aligning with the 21st-century skill requirements.

The objectives of ATL include:

- Creating flexible workspaces for hands-on learning and idea development.
- Equipping youth with modern skills, including creativity, innovation, and cross-cultural collaboration.
- Encouraging the development of solutions for India's unique challenges to support its growth as a knowledge-driven economy.

This initiative underlines the commitment to preparing the next generation to thrive in a technology-driven world.

Impact of Atal Tinkering Labs (ATL) in India

The Atal Tinkering Labs (ATLs) initiative under the Atal Innovation Mission has achieved significant milestones in fostering a culture of innovation and creativity among students across India. With over 10,000 ATLs established, the program has made its presence felt in 722 districts across 35 states and union territories, ensuring wide geographical outreach and inclusivity.

Atal Tinkering Labs (ATLs), an initiative by NITI Aayog under the Atal Innovation Mission, serve as innovation workspaces designed to foster creativity, technological skills, and adaptive learning among students in grades 6 to 12. With the objective of equipping young minds for the AI-driven era, ATLs provide infrastructure and tools such as 3D printers, robotics kits, IoT tools, and advanced computing systems.

Funded through an initial grant of ₹12,00,000 and annual recurring support of ₹2,00,000 for operational expenses over four years, the labs focus on skill development in areas like artificial intelligence, design thinking, and problem-solving. In collaboration with NASSCOM and industry leaders like Microsoft, Adobe, SAP Labs, and Wipro, ATLs have introduced AI modules featuring videos, experiments, and interactive activities.

These labs play a pivotal role in bridging the gap between traditional education and technological advancements, offering students exposure to STEM and real-world applications. Through partnerships for hackathons, mentoring, and innovation challenges, ATLs are democratizing access to technological education and fostering grassroots innovation across India.

A robust mentorship network supports the program, with more than 6,200 *Mentors of Change* actively guiding students in their journey of innovation. These mentors play a pivotal role in enabling young minds to explore concepts in Science, Technology, Engineering, and Mathematics (STEM), inspiring them to develop solutions for real-world challenges.

The initiative has engaged over 1.1 crore students in hands-on activities and projects, empowering them with practical skills and innovative thinking. Notably, more than 60% of the ATLs are housed in government or government-aided schools, with 96% of these labs situated in girls' or co-educational institutions, reflecting the program's commitment to inclusivity and gender equality.

The impact is further evidenced by the creation of over 16 lakh innovation projects by students, showcasing their ability to think critically and develop solutions. These projects underline the success of ATLs in nurturing future innovators and leaders capable of addressing India's unique challenges.

The ATL initiative continues to play a transformative role in shaping India's education landscape, equipping the youth with 21st-century skills and fostering a culture of innovation essential for a knowledge-driven economy.

Challenges Faced by ATLs

- **Sustainability and Maintenance:** Regular maintenance of high-tech equipment and ensuring a consistent supply of tools and materials are ongoing challenges for some ATLs, especially in government schools with limited resources.
- **Teacher Training:** To maximize the potential of ATLs, teachers need continuous training in new technologies and educational methodologies. The lack of trained teachers in some regions hinders the effective utilization of these labs.
- **Accessibility in Rural Areas:** Although the aim is to democratize innovation across the country, ATLs are still concentrated in urban and semi-urban areas, with fewer resources allocated to rural schools.

Prospects / Outlook

- **Expansion and Outreach:** The government plans to increase the number of ATLs, particularly in rural and underprivileged areas, ensuring that every student across India has access to cutting-edge educational resources.
- **Integration with Global Networks:** Collaborations with international innovation networks and universities are expected to further enhance the learning experience in ATLs, providing students with exposure to global technologies and trends.
- **Sustainability Initiatives:** Focus on ensuring long-term sustainability of the ATLs through continuous funding, collaboration with industry stakeholders, and community involvement.

Atal Tinkering Labs have played a transformative role in the Indian education system by fostering an environment of creativity, innovation, and practical learning. With a focus on empowering students with the skills needed for the future, ATLs are shaping India's future innovators and entrepreneurs. However, to fully realize the potential of this initiative, addressing challenges related to teacher training, resource sustainability, and rural accessibility will be crucial.

IT Infrastructure Modernization Initiatives

India's Ministry of Education has embarked on a groundbreaking modernization journey by selecting Oracle Cloud Infrastructure (OCI) to transform the national education technology platform, 'Digital Infrastructure for Knowledge Sharing' (DIKSHA). This strategic migration not only enhances the accessibility of DIKSHA but also significantly reduces its IT costs, marking a pivotal advancement in India's educational landscape.

DIKSHA, a cornerstone of India's Digital Public Infrastructure (DPI) initiatives, was meticulously crafted to cater to school education and foundational learning programs. Leveraging the open-source platform Sunbird, DIKSHA empowers teachers to foster inclusive learning environments for underserved and disabled learners nationwide. With over 200 million students and 7 million teachers from government and private schools accessing content contributed by more than 11,000 collaborators, DIKSHA serves as a beacon of educational empowerment.

Since transitioning to OCI, DIKSHA has experienced a paradigm shift, reaping the benefits of enhanced scalability, security, cost-effectiveness, and dynamic capacity adjustment based on demand. This transformation has bolstered DIKSHA's ability to deliver vast amounts of content, accommodating the burgeoning needs of students and educators as the platform expands.

The monumental scale of the DIKSHA platform necessitated a cloud service provider capable of efficiently handling extensive data processing, storage, and distribution. OCI emerged as the ideal solution, equipped with robust capabilities to manage DIKSHA's diverse data formats and intricate workflows. Employing OCI Compute VMs, OCI Storage, and OCI Container Engine for Kubernetes (OKE), DIKSHA seamlessly manages its workload, stores application content, and orchestrates microservices to ensure uninterrupted service delivery.

Furthermore, OCI Media Flow and OCI Media Streams play a pivotal role in optimizing user access to DIKSHA's extensive library of nearly 1.5 million videos. By processing and storing video content in the appropriate formats and resolutions, OCI facilitates seamless content delivery tailored to users' preferences.

The adoption of OCI by India's Ministry of Education underscores a transformative shift towards leveraging cutting-edge technology to revolutionize education delivery and accessibility. As DIKSHA continues to evolve and expand its reach, Oracle Cloud Infrastructure remains a steadfast partner, driving innovation and empowerment within India's educational ecosystem.

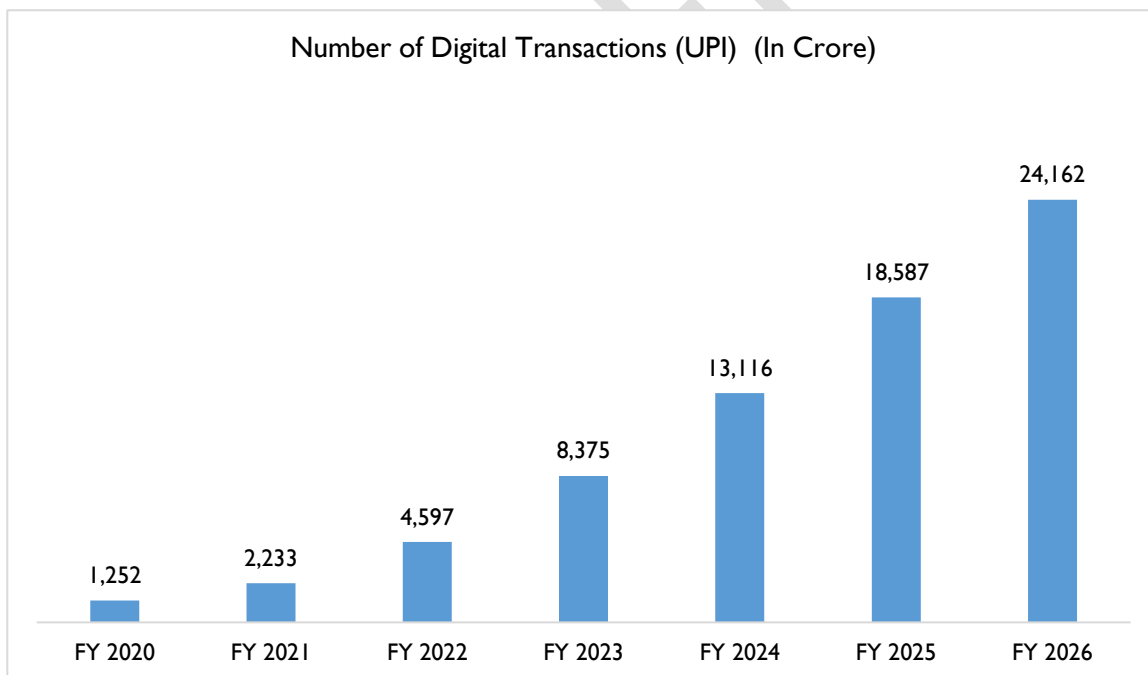
CONFIDENTIAL

IT Infrastructure Modernization in BFSI Domain

In recent years, the BFSI sector has witnessed a rapid shift towards digitalization, driven by changing consumer preferences, technological advancements, and regulatory mandates. The adoption of digital technologies has revolutionized banking, financial services, and insurance operations, enabling organizations to streamline processes, expand market reach, and deliver personalized services to customers. Moreover, IT infrastructure modernization has become imperative to support the growing demands of digital banking, data analytics, and cybersecurity in an increasingly interconnected world.

The Government of India's commitment to fostering a cashless economy, notably following the 2016 demonetization drive, has accelerated the country's transition to digital financial services. The Digital India initiative has also played a significant role in promoting awareness and adoption of digital payments. Over the past decade, India has witnessed a surge in digital transactions, facilitated by widespread smartphone penetration and the availability of affordable data plans.

As a result of rapid technological advancements and the widespread adoption of Digital Public Infrastructure (DPI), digital financial transactions in India have witnessed exponential growth over the past decade. According to the Economic Survey 2025-26, digital payment systems have become a key enabler of financial inclusion, providing secure, low-cost, and real-time transaction capabilities across the country. India's digital payments ecosystem processed 26,819 crore transactions in 2025, reflecting strong growth from 6,437 crore transactions in 2021 and highlighting the increasing adoption of cashless payment mechanisms by consumers and businesses.



Source: Department of Economic Affairs

Among the various digital payment platforms, the Unified Payments Interface (UPI) has emerged as the backbone of India's digital payments ecosystem since its launch in 2016. According to the Ministry of Finance, UPI processed a record 24,161.69 crore transactions during FY 2025-26, representing an annual growth of approximately 30% over FY 2024-25. The value of UPI transactions reached INR 314.23 lakh crore during FY 2025-26, underscoring its growing significance in facilitating retail digital payments across the country.

The Economic Survey 2025-26 notes that UPI has evolved beyond a payment platform into a critical component of India's financial infrastructure by enabling financial inclusion, expanding access to credit through digital transaction histories, and supporting seamless transactions across consumers and merchants. UPI recorded **22,830 crore transactions during calendar year 2025**, while monthly transaction volumes reached an all-time high of **21.6 billion transactions (2,160 crore)** in December 2025. By March 2026, over **700 banks** were connected to the UPI network, and the platform accounted for approximately **85% of India's digital payment transaction volume**, reaffirming its position as the world's largest real-time payments system.

IT Infrastructure Modernization Initiatives

In the dynamic landscape of the BFSI sector, IT infrastructure modernization plays a critical role in enabling organizations to adapt to evolving technological trends, enhance operational efficiency, and deliver seamless customer experiences. This section delves into the importance of IT infrastructure modernization in the BFSI domain, highlighting key initiatives and technologies driving transformation in this sector.

With the exponential growth of data and increasing customer expectations for real-time services, BFSI organizations are under pressure to modernize their IT infrastructure to meet the demands of the digital age. This modernization effort encompasses various components, including hardware, software, networking, and cybersecurity systems. Upgrading legacy systems to more agile and scalable architectures is essential for supporting the rapid pace of innovation and ensuring seamless integration with emerging technologies.

One of the primary drivers of IT infrastructure modernization in the BFSI sector is the adoption of cloud computing technology. Cloud solutions offer scalability, flexibility, and cost-effectiveness, allowing organizations to optimize resource utilization, improve data management, and enhance operational agility. By migrating data and applications to cloud platforms, BFSI organizations can streamline operations, reduce infrastructure costs, and accelerate time-to-market for new products and services.

Furthermore, the proliferation of digital channels and the increasing volume of online transactions have heightened the importance of cybersecurity in the BFSI sector. IT infrastructure modernization efforts include the implementation of advanced cybersecurity measures, such as multi-factor authentication, encryption, and threat detection systems, to safeguard sensitive data and mitigate cyber risks. Building a resilient cybersecurity framework is crucial for maintaining customer trust and complying with regulatory requirements in an increasingly interconnected and data-driven environment.

Additionally, BFSI organizations are leveraging emerging technologies such as artificial intelligence (AI), machine learning (ML), and robotic process automation (RPA) to enhance operational efficiency and customer engagement. AI and ML algorithms are being deployed for predictive analytics, fraud detection, and personalized customer services, enabling organizations to gain valuable insights from data and deliver tailored solutions to individual customers. RPA solutions are automating repetitive tasks, reducing manual errors, and improving process efficiency across various business functions.

Digital Transformation Initiatives

The BFSI sector is witnessing a profound digital transformation driven by changing consumer behaviours, technological advancements, and evolving regulatory landscapes. This section explores the key digital transformation initiatives undertaken by BFSI organizations to stay ahead in a competitive market and meet the evolving needs of customers.

One of the primary digital transformation initiatives in the BFSI sector is the development and deployment of mobile banking applications. Recognizing the increasing reliance on smartphones and mobile devices, banks and financial institutions have invested heavily in creating user-friendly and feature-rich mobile apps.

These apps enable customers to perform a wide range of banking transactions, such as account inquiries, fund transfers, bill payments, and mobile deposits, conveniently from their mobile devices. Mobile banking apps not only enhance customer experience but also drive customer engagement and loyalty.

Furthermore, BFSI organizations are leveraging advanced analytics and artificial intelligence (AI) technologies to gain actionable insights from vast amounts of data. By harnessing the power of data analytics, banks and financial institutions can better understand customer behavior, preferences, and needs. AI-powered chatbots and virtual assistants are being deployed to provide personalized recommendations, address customer queries, and facilitate self-service transactions, thereby improving customer satisfaction and reducing operational costs.

Another critical digital transformation initiative in the BFSI sector is the adoption of blockchain technology. Blockchain offers immutable and transparent transaction records, enhancing security, trust, and efficiency in financial transactions. BFSI organizations are exploring various use cases for blockchain, including cross-border payments, trade finance, identity verification, and smart contracts. By leveraging blockchain technology, banks and financial institutions can streamline processes, reduce fraud, and lower transaction costs, ultimately enhancing operational efficiency and fostering innovation.

Moreover, BFSI organizations are embracing open banking and API (Application Programming Interface) ecosystems to facilitate collaboration and innovation in the industry. Open banking initiatives enable banks to securely share customer data and services with third-party developers and fintech startups through APIs. This collaboration fosters the development of innovative financial products and services, such as personal finance management apps, peer-to-peer lending platforms, and robo-advisors, enriching the overall customer experience and expanding market opportunities.

IT Infrastructure Modernization in Government Service Delivery

UIADI Biometric Upgrade

The Unique Identification Authority of India (UIDAI) is mandating an upgrade from L0 to L1 biometric devices for Aadhaar authentication. This upgrade signifies a significant step towards enhancing security and accuracy in Aadhaar-based fingerprint and iris recognition systems.

The older L0 devices rely on basic sensors to capture fingerprints and iris scans. They offer a lower level of security and may be prone to errors due to limitations in sensor technology. This risk has prompted an upgrade to L1 devices which are equipped with advanced capacitive fingerprint sensors and high-resolution iris scanners. L1 devices offer improved image quality, leading to higher accuracy and better resistance to spoofing attempts.

Impact of Upgrade: Opportunities for IT Infrastructure Service Providers

The L1 biometric upgrade presents a lucrative opportunity for IT infrastructure companies in several ways:

Device Deployment and Maintenance: The rollout of millions of L1 devices across India necessitates efficient deployment and maintenance services. IT infrastructure companies can offer logistics and on-site support for device installation, configuration, and troubleshooting.

System Integration: Integrating L1 devices with existing Aadhaar infrastructure requires expertise in system integration. IT infrastructure companies can provide services for seamless integration and data transfer between devices and central systems.

Cybersecurity Solutions: The increased focus on security necessitates robust cybersecurity solutions for L1 devices and the overall Aadhaar infrastructure. IT infrastructure companies can offer security assessments, penetration testing, and vulnerability management services.

Training and Awareness: The transition to L1 devices requires training for users and administrators. IT infrastructure companies can develop training programs to educate users on the proper use of L1 devices and create awareness about Aadhaar security best practices.

Point of Sale (PoS) Mandate for Direct Benefit Schemes

The Indian government's initiative to mandate Point-of-Sale (PoS) machines for Direct Benefit Transfer (DBT) schemes signifies a significant shift towards financial inclusion and transparency. DBT involve electronically transferring government subsidies and benefits directly to beneficiaries' bank accounts. The PoS mandate requires using PoS machines for authenticating beneficiaries and recording transactions when they utilize these benefits at designated points.

Opportunities for IT Infrastructure Service Providers

The PoS mandate creates exciting opportunities for IT infrastructure companies in several areas:

- PoS Hardware and Software Providers: There will be a surge in demand for PoS machines, catering to various functionalities and price points. IT infrastructure companies can supply, and install these devices. Additionally, there's a need for developing and integrating secure PoS software solutions.

- **Connectivity Solutions:** Reliable internet connectivity is crucial for PoS transactions, especially in rural areas. IT infrastructure companies can provide solutions like satellite internet, VSAT, or robust broadband services to ensure seamless connectivity for PoS devices.
- **Payment Network Services:** The increased volume of PoS transactions necessitates efficient payment network processing. IT infrastructure companies can offer payment gateway solutions and network management services to ensure smooth transaction processing.
- **Data Security and Management:** Securing sensitive financial data from PoS transactions is paramount. IT infrastructure companies can provide data encryption solutions, security audits, and robust data management solutions to safeguard sensitive information.
- **Training and Support:** Rolling out PoS systems across a vast nation requires training for retailers, beneficiaries, and government officials. IT infrastructure companies can develop training programs and provide ongoing technical support for all stakeholders involved.

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDSA)

The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDSA), launched in 2017, is a flagship initiative of the Government of India aimed at empowering rural India with digital literacy skills.

Opportunities for IT Infrastructure Service Providers

The PMGDSA has opened doors for IT infrastructure companies to play a vital role in India's digital transformation journey:

- **Training and Development:** There's a demand for companies that can develop and deliver effective digital literacy training programs tailored to the needs of rural populations. This includes creating content in local languages and utilizing user-friendly training modules.
- **Technology Infrastructure:** Providing access to computers, tablets, or smartphones for training purposes is crucial. IT infrastructure companies can collaborate with the government to set up training centers or provide low-cost devices for rural communities.
- **Connectivity Solutions:** Bridging the digital divide in rural areas requires innovative solutions for internet connectivity. IT infrastructure companies can explore options like satellite internet, VSAT, as well as establishing robust broadband networks in rural areas.

Data Centre Policy 2020

The Data Centre Policy 2020, launched by the Ministry of Electronics and Information Technology (MeitY), aims to accelerate the growth of data center infrastructure in India. This policy introduces a series of reforms to streamline the setup process, incentivize investments, and position India as a global data center hub.

Opportunities for IT Infrastructure Service Providers

The Data Centre Policy 2020 presents a golden opportunity for IT infrastructure companies offering a range of services:

- **System Integration:** Designing and integrating complex data center infrastructure, including hardware, software, and network components, will be in high demand. Companies with expertise in system integration can play a crucial role.
- **Hardware Services:** Supplying, installing, and maintaining data center hardware like servers, storage solutions, cooling systems, and security equipment will see a surge in demand. IT infrastructure companies with robust hardware service portfolios are well-positioned.
- **Project Management Services:** Managing large-scale data center projects from planning and construction to deployment and ongoing maintenance requires skilled project managers. Companies with experience in managing complex IT infrastructure projects will be in high demand.
- **IT Facility Management Services:** Providing comprehensive data center facility management services, encompassing power management, environmental controls, physical security, and disaster recovery solutions, will be crucial. Companies with expertise in this area can capitalize on this opportunity.
- **IT Consulting Services:** Offering strategic IT consulting services to businesses planning to set up or migrate to data centers will be in high demand. This includes advising on data center design, technology selection, and implementation strategies.
- **IT Infrastructure Solutions:** Delivering complete IT infrastructure solutions encompassing hardware, software, managed services, and expertise in data center design and deployment will be attractive to businesses. Companies offering bundled solutions can gain a competitive edge.

Digital Personal Data Protection (DPDP) Act

The Digital Personal Data Protection Act (DPDP) Act, 2023, is a landmark legislation in India that governs the processing of digital personal data. It aims to strike a balance between protecting individual privacy and enabling businesses to leverage data for legitimate purposes.

Impact on Businesses Handling Data:

The DPDP Act will significantly impact businesses that handle personal data of Indian citizens.

- **Compliance Costs:** Businesses will need to invest in building processes and systems to comply with the Act's requirements. This includes obtaining consent management platforms, data security solutions, and potentially hiring data protection officers.
- **Shift in Data Governance:** Businesses will need to adopt a more transparent and accountable approach to data governance. This involves documenting data collection practices, purposes, and retention periods.
- **Potential for Disruption:** Non-compliance with the Act can lead to penalties and reputational damage. Businesses may need to review their data collection practices and marketing strategies to ensure compliance.

Opportunities for IT Infrastructure Service Providers

The DPDP Act presents significant opportunities for IT infrastructure companies that can help businesses achieve compliance:

- Data Security Solutions: The increased focus on data security creates a demand for solutions like data encryption, access controls, and intrusion detection systems. IT infrastructure providers can offer these solutions and consulting services to help businesses secure their data.
- Consent Management Platforms: Businesses will need tools to manage consent from individuals for data collection. IT infrastructure providers can develop or integrate consent management platforms that streamline this process.
- Data Governance Solutions: Software solutions for data lineage tracking, data discovery, and data anonymization can help businesses manage and govern their data effectively. IT infrastructure providers can offer these solutions or partner with existing providers.
- Cloud-based Compliance Solutions: Cloud service providers can offer solutions specifically designed to help businesses comply with the DPDP Act's data storage and residency requirements.

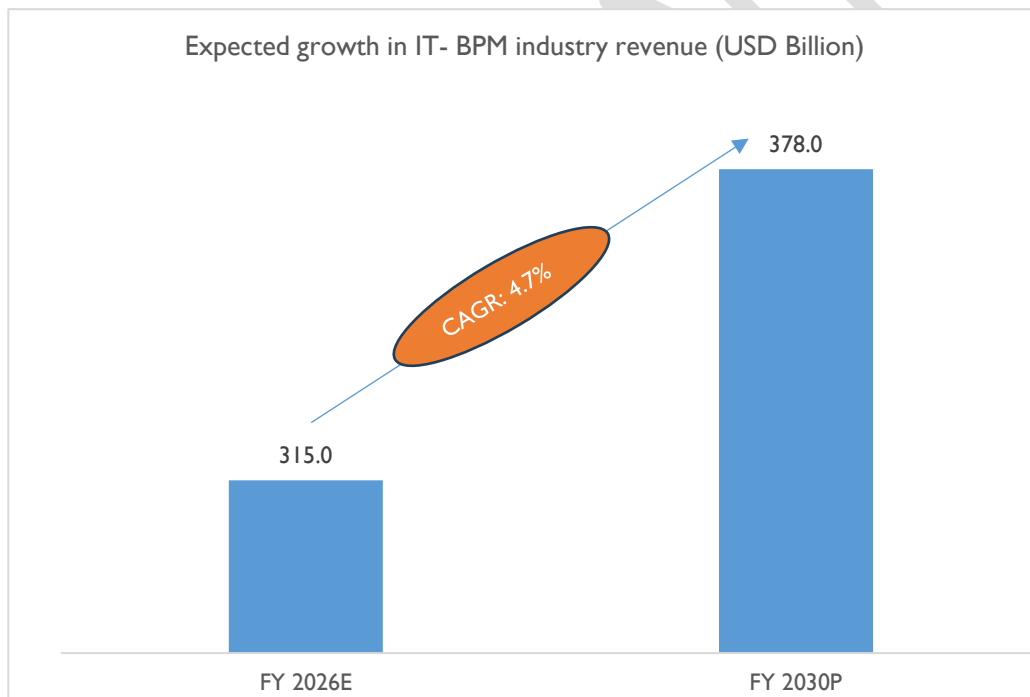
CONFIDENTIAL

Growth Forecast

The Indian IT-BPM (Information Technology- Business Process Management) industry revenue is estimated to grow from USD 315.0 billion in FY 2026E and USD 378 billion by FY 2030. This positive trend reflects the sector's continued expansion, driven by digital transformation, rising global outsourcing demand, and increasing investments in cloud, AI, and cybersecurity technologies.

The CAGR (Compound Annual Growth Rate) is marked at 4.7%, indicating a consistent pace of industry development. Contributing factors include the rise of Software as a Service (SaaS), global capability centres (GCCs), and government policies supporting digital public infrastructure and innovation. This consistent upward trajectory underlines the IT-BPM industry's critical role in India's economic growth and its strategic importance in the global digital economy.

Compared to developed economies, India offers competitive rates for IT services, making it an attractive option for businesses worldwide. This advantage, coupled with a large pool of skilled professionals, continues to attract global clients. The rise of technologies like artificial intelligence, blockchain, and the Internet of Things (IoT) is creating new opportunities for the Indian IT industry. Companies are investing in developing expertise in these areas to meet evolving client needs.



Source: NASSCOM, Industry Articles, D&B Research and Estimates

Notably, the domestic IT market is expected to grow even faster. This rapid expansion presents exciting opportunities for both Indian businesses and the global IT landscape. The Indian government is actively promoting digital adoption through initiatives like "Digital India," which aims to make government services more accessible online and bridge the digital divide.

This creates significant demand for IT infrastructure and services within the country. The rising middle class in India is driving demand for consumer-focused IT products and services, such as e-commerce platforms, digital payment solutions,

and online entertainment options. India's thriving start-up ecosystem is fueling demand for IT services as these new businesses require solutions for website development, app development, cloud infrastructure, and cybersecurity.

Threats & challenges Impacting the IT infrastructure Solution

1. Cyber Security Threats

- **Ransomware Attacks:** Ransomware remains a serious threat to servers, networks, endpoints, cloud environments and backup systems. Attackers may encrypt critical data, disrupt business operations or threaten to disclose sensitive information. The consequences can include operational downtime, recovery costs, data loss, regulatory action and reputational damage.
- **Data Breaches:** The increasing interconnection of on-premises, cloud and third-party systems expands the potential attack surface. Weak access controls, compromised credentials, unpatched systems and incorrect security configurations can expose confidential information. A breach may result in financial losses, legal liabilities, regulatory penalties and loss of customer trust.
- **Supply Chain Attacks:** IT infrastructure depends heavily on software providers, hardware manufacturers, managed service providers, open-source components and other third parties. A security weakness in any part of this supply chain can provide attackers with indirect access to an organisation's systems and data
- **Cloud Security:** Cloud computing introduces security challenges related to identity and access management, data protection, insecure interfaces, configuration errors and shared-responsibility arrangements. Organisations must understand which security responsibilities belong to the cloud provider and which remain with the customer.

2. Technological Disruptions

- **Rapid Technological Advancements:** Developments in artificial intelligence, automation, cloud computing, edge computing and the Internet of Things are changing how IT infrastructure is designed and managed. Organisations must continuously modernise their infrastructure, processes and workforce capabilities to remain secure, efficient and competitive.
- **Legacy-system limitations:** Older hardware, software and operating systems may become difficult to maintain, expensive to operate and incompatible with modern platforms. Unsupported systems also create security risks when vendors stop providing updates and security patches.
- **Emerging Technologies uncertainty:** Technologies such as generative AI, blockchain and quantum computing may create new opportunities, but they can also introduce uncertain costs, security concerns and integration requirements. Organisations must evaluate their practical business use before making significant infrastructure investments.

3. Economic and Political Factors

- **Economic Slowdown:** Economic uncertainty can cause organisations to reduce technology expenditure, postpone infrastructure upgrades or cancel major transformation projects. Delayed investment may increase dependence on inefficient or unsupported legacy systems.
Geopolitical Risks: Geopolitical tensions, trade restrictions and supply-chain disruption can affect the availability and cost of servers, networking equipment, semiconductors and other critical components. Dependence on a limited number of suppliers or geographic regions can increase operational vulnerability.
- **Regulatory Changes:** Changes in data-protection, cybersecurity, data-localisation and industry-specific regulations may require organisations to modify how they store, process, secure and transfer information. Compliance may require additional investment in monitoring, reporting, access management and data-governance systems.
- **Rising infrastructure costs:** Organisations may face increasing costs for cloud services, software licences, cybersecurity tools, skilled professionals, energy and specialised hardware. Unexpected increases can affect IT budgets and reduce the financial benefits expected from infrastructure modernisation.

4. Talent Shortages

- **Skill Gaps:** The IT infrastructure sector faces shortages of professionals with expertise in cybersecurity, cloud architecture, artificial intelligence, network engineering, automation and data-centre operations. A lack of suitable talent can delay projects, increase labour costs and weaken infrastructure management.
- **Upskilling and Reskilling:** Rapid technological change requires employees to update their skills continuously. Organisations must invest in training, certifications and practical development programmes to ensure that their workforce can manage modern infrastructure securely and efficiently.

5. Sustainability Challenges

- **Environmental Impact:** Data centres and computing infrastructure require substantial electricity for processing, storage and cooling. Inefficient equipment and poor capacity management can increase operating costs and environmental impact. Frequent replacement of servers, computers, network equipment and storage devices contributes to electronic waste. Improper disposal can create environmental, data-security and regulatory risks.

Sustainable infrastructure requirements: Organisations are under increasing pressure to adopt energy-efficient equipment, optimise data-centre utilisation, use renewable energy and dispose of obsolete assets responsibly. Sustainable procurement and lifecycle management should therefore form part of the IT infrastructure strategy.

Threats & challenges Impacting the IT Managed Services

Artificial Intelligence and Delivery-Model Disruption

- **Automation of Routine Work:** Artificial Intelligence and "agentic" automation can now perform much of the coding, testing and support-desk work that traditionally drove headcount-led growth. This threatens the long-standing model of deploying more people to grow revenue.

- **Shift to Outcome-Based Buying:** Clients increasingly wish to pay for outcomes and productivity rather than for hours worked, requiring providers to re-shape their delivery, pricing and staffing models or risk losing relevance.

Pricing and Margin Pressure

- **Rate Compression at Renewal:** As automation reduces the time needed to complete tasks, clients seek lower rates when contracts come up for renewal, squeezing the traditional time-and-material billing model.
- **Decoupling of Revenue and Headcount:** Revenue growth is increasingly outpacing headcount growth, and unless billing declines are matched by cost savings and productivity gains, operating margins remain under sustained pressure.

Market Concentration and Policy Risks

- **Dependence on Key Export Markets:** A large share of industry revenue is concentrated in a few overseas markets, leaving providers exposed to demand slowdowns and policy shifts in those geographies.
- **Immigration and Visa Uncertainty:** Higher visa costs and changes to visa selection rules raise the cost and complexity of cross-border delivery, prompting a shift toward offshore and local hiring.
- **Trade and Tariff Uncertainty:** Potential tariffs, outsourcing taxes and broader geopolitical friction create uncertainty that can delay client decisions and disrupt delivery.

Competitive Landscape

The Indian IT infrastructure industry is flourishing, driven by a growing demand for digital solutions. The competitive landscape is dynamic, with established players facing competition from innovative mid-tier players and niche specialists. The market is teeming with both established players and emerging ones, creating a dynamic competitive environment. Major players like TCS, Wipro, Infosys, and HCL Technologies offer comprehensive IT infrastructure solutions, including data center services, network management, and cloud solutions. These companies leverage their vast experience, global reach, and diverse service portfolios to gain a competitive edge.

Mid-sized players like L&T Infotech, Tech Mahindra, and Mphasis are also making their mark, offering cost-effective solutions and catering to specific market segments. Additionally, niche players with specialized expertise in areas like cloud migration, network security, and disaster recovery are carving out their space, further intensifying the competitive landscape.

Competition is evolving beyond just cost and service offerings. Factors like innovation, agility, and specialization are becoming increasingly important. Companies are differentiating themselves by investing in cutting-edge technologies like artificial intelligence and automation, adopting agile methodologies, and developing domain-specific expertise. Additionally, the rise of cloud-based solutions is disrupting traditional business models, forcing players to adapt and develop new competitive strategies.

The Government of India's Digital India initiative fuels the demand for IT infrastructure solutions as businesses and government entities across the country rapidly digitize their operations to facilitate e-governance, citizen services, and business enablement. The rapid adoption of cloud-based solutions drives the need for IT infrastructure services focusing on cloud migration, management, and optimization. Companies look for providers to help them move workloads to the cloud and manage hybrid cloud environments. Rising cybersecurity threats increase the demand for robust network, data, and infrastructure security solutions. Companies require assistance in vulnerability assessments, threat detection, and incident response. The need for data centers to store and process increasing volumes of data is pushing the requirement for IT infrastructure players with specialized expertise in data center design, build-out, and management.

The domestic IT infrastructure industry in India is highly competitive, featuring a mix of established global players, large Indian conglomerates, and specialized mid-sized firms. Companies like TCS, Wipro, Infosys, and HCL Technologies dominate the market, leveraging their global reach, extensive resources, and diversified portfolios. These players offer a full range of IT infrastructure services, from cloud solutions and data center management to network security and managed services. Mid-sized players like L&T Infotech, Tech Mahindra, Mphasis, and others compete by providing a mix of cost-effectiveness, niche specialization, and focus on specific industry verticals. They often have strong regional presence and established relationships with specific clientele. Smaller, niche players compete by focusing on specialized areas like cloud migration, network security, cybersecurity, or infrastructure solutions for specific sectors like healthcare or education.

Entering the domestic IT infrastructure industry requires significant technical expertise and investment in skilled resources. Setting up modern data centers, establishing cloud solutions, and building robust networking infrastructure can be capital intensive. Especially to cater to the government sector, where pre-qualifications are mandatory, which often

involve a minimum number of years of experience, proven track record of successfully executing similar projects, and financial stability. Additionally, obtaining security clearances and adhering to stringent compliance regulations can be challenging for new entrants. Government contracts often require domain-specific expertise and experience in handling large-scale projects. Additionally, specific security certifications and adherence to data privacy regulations are mandatory.

TCS provides a comprehensive portfolio of IT infrastructure services, including data center operations, managed services, and cloud solutions. For example, TCS established and currently maintains the infrastructure for the Passport Seva, a government initiative facilitating passport issuance.

Wipro offers a comprehensive portfolio of IT infrastructure services for government agencies, including cloud solutions, data center management, and network security. They have been involved in projects like the implementation of the Integrated Traffic Management System (ITMS) for Delhi and the National Knowledge Network (NKN) project.

HCL Technologies offers a diverse IT infrastructure service portfolio for the government sector, encompassing data center operations, network management, and cloud solutions. They have implemented projects like the National e-Governance Plan (NeGP) and the digitization of land records for various state governments.

L&T Infotech specializes in offering IT infrastructure solutions catering to specific needs of government agencies. They have been involved in projects like the implementation of the Goods and Services Tax Network (GSTN) and the automation of various processes for the Ministry of Defence.

While the government sector presents unique challenges with its stringent entry barriers and specific requirements, it also offers significant opportunities for players with the right expertise and experience.

Moreover, The Company also operates in the renewable energy sector, which is characterized by the presence of several established listed and unlisted market participants. The relevant listed entities operating in this sector include **KPI Green Energy Limited, Oriana power limited, Waaree Energies Limited, and Tata Power Company Limited**. In addition, notable unlisted participants include **Jakson Green Limited and Avaada Energy**

Key Factors Shaping Competition

Cost-effective Solutions	Indian IT service providers are known for their ability to offer cost-efficient solutions compared to many developed nations. This cost advantage remains a primary factor attracting domestic businesses seeking to maximize the value of their IT investments
Competitive Bidding	The Indian IT market has many established players and emerging firms, leading to a highly competitive bidding environment for projects. This can drive price pressure, particularly for commoditized services
Flexible Pricing Models	IT providers in India often offer flexible pricing models to cater to diverse client needs. These could include fixed-price contracts, pay-as-you-go models, or outcome-based pricing, allowing clients to tailor their IT spend

Service Offerings	
Broad Range of Services	Indian IT firms offer a comprehensive spectrum of services, including software development, IT infrastructure management, cloud services, cybersecurity, business process outsourcing, and analytics. This allows businesses to find a single vendor for multiple needs.
Specialization in Emerging Technologies	Many Indian IT companies are differentiating themselves by specializing in areas like artificial intelligence, machine learning, blockchain, IoT, and advanced analytics. This specialization in niche areas helps them stand out in a crowded market.
Emphasis on Innovation	Top Indian IT companies invest significantly in research and development to stay ahead of the technology curve. They prioritize innovation, offering cutting-edge solutions for a rapidly evolving digital landscape

Other Factors	
Talent Pool	India's large and skilled IT workforce is a significant driver of the industry's growth and competitiveness. The continuous supply of engineers and IT professionals provides an advantage in terms of resource availability and cost optimization.
Domestic Market Understanding	Indian IT service providers have a deep understanding of the local business dynamics, regulatory requirements, and cultural nuances. This understanding can be a key differentiator when working with Indian businesses..
Government Support	Government initiatives like "Digital India" and "Make in India" have fostered a conducive environment for the domestic IT industry. Programs promoting technology adoption and innovation contribute to the industry's growth.

CONFIDENTIAL

Key Player Profiles

Company Name	Brief Profile	Services Offered
Telecommunications Consultants India Limited (TCIL)	It is a wholly-owned Government of India Public Sector Undertaking under the administrative control of the Department of Telecommunications (DoT), Ministry of Communications. Established in 1978, it is a leading engineering and consultancy company offering services in the fields of telecommunications, information technology, and civil construction.	TCIL offers various IT services, such as: • IT infrastructure planning, design, and implementation • Software development and maintenance • Cybersecurity solutions • Data center services

Company Name	Brief Profile	Services Offered
Larsen & Toubro (L&T)	It is a multinational conglomerate headquartered in Mumbai, India. Established in 1938, it has a long history and strong presence in several key sectors such as Engineering & Construction (E&C) , Information Technology & Services (IT&S), Financial Services, making it a leading player in the Indian economy.	Information Technology & Services segment is represented by L&T Technology Services (LTTS), a listed subsidiary focusing on: Engineering design and development: LTTS offers services like product development, embedded systems, and engineering process management for various sectors. Digital transformation: The company assists clients in implementing digital solutions like automation, data analytics, and cloud adoption.

CONFIDENTIAL

Company Name	Brief Profile	Services Offered
Extramarks Education	It is an Indian education technology (EdTech) company established in 2007. It offers a comprehensive suite of online and offline learning solutions for students across various age groups and educational needs.	Pre-school and K-12: Extramarks provides curriculum-based resources and interactive learning modules for students ranging from pre-school to class 12. Higher Education and Test Prep: The company offers dedicated online courses and preparation materials for various competitive exams like JEE (engineering entrance), NEET (medical entrance), and other university entrance exams.

CONFIDENTIAL

Company Name	Brief Profile	Services Offered
Team Computers	It is a leading IT infrastructure and information solutions provider established in India in 1987. With a presence across over 25 cities in the country, it serves over 2500 clients and boasts a workforce exceeding 4,000 individuals.	Core Services: Team Computers offers a comprehensive range of hardware & software solutions Team Computers offers a wide range of IT services, including: • System management • Application management • Network management • Security • management • Cloud services • Managed print services • IT consulting

Company Name	Brief Profile	Services Offered
Hitachi Systems Micro Clinic (HISYS-MC)	It is a system integration (SI) company operating under the umbrella of Hitachi Systems India Pvt. Ltd. Established in 1991, HISYS-MC has carved a niche for itself in the Indian IT landscape, empowering businesses with advanced IT solutions.	• Infrastructure Solutions • Cloud Solutions • Networking Solutions • Security Solutions • Digital Workplace Solutions • Managed Services

Dynacons Systems & Solutions Ltd.	Established in 1995 and headquartered in Mumbai, India, has carved a niche for itself in the IT service industry. They offer a comprehensive suite of IT solutions catering to diverse needs of corporations across various industry verticals.	- Infrastructure Managed Services (IMS) - Break-Fix Services - Managed Print Services (MPS) - Cloud Computing - Systems Integration Services - Applications Development and Maintenance
-----------------------------------	---	--

Company Name	Brief Profile	Services Offered
Value Point Systems Private Limited	It is a leading IT infrastructure solutions and services provider headquartered in Bengaluru, India. Established in 1991 as a partnership firm and reconstituted as a private limited company in 1995, VPSPL has established itself as a trusted partner for businesses seeking reliable and comprehensive IT solutions.	End-to-End Infrastructure Solutions: VPSPL provides a full spectrum of services to design, build, manage, and optimize IT infrastructure, including: - Network infrastructure solutions (LAN, WAN, wireless) - Data center solutions (design, construction, management)

- Cloud computing solutions (migration, management, optimization)
- Cyber security solutions (threat detection, vulnerability management)
- IT infrastructure management (monitoring, maintenance, optimization)

Life Cycle Services: VPSP offers a comprehensive

CONFIDENTIAL

Company Name	Brief Profile	Services Offered
Aabasoft Technologies India Private Limited	It is a global Information Technology (IT) and Information Technology Enabled Services (ITeS) solutions provider headquartered in Kochi, Kerala, India. Established in 2002, the company has grown to serve clients across various industries.	• IT Infrastructure • Cloud Services • Web Technology • Mobile Applications • Enterprise Applications • Business Services • Internet Marketing

CONFIDENTIAL

Solar EPC Industry

Renewable Energy Landscape in India¹⁰

India has emerged as a global leader in renewable energy, ranking 3rd globally in renewable energy installed capacity, additions, 4th¹¹ in installed wind power capacity. At COP26, India pledged to achieve 500 GW of non-fossil fuel-based energy by 2030, marking the world's largest renewable energy expansion plan. As of July, 2026, India's installed non-fossil fuel capacity stands at over 300.51 GW, which is more than 54% of the country's total power capacity. Solar power remained the principal driver of the expansion, with installed capacity of 164.59 GW by July 2026.

The renewable energy sector in India benefits from favourable government policies, including 100% Foreign Direct Investment (FDI) under the automatic route. The government has also allocated INR 32,914.7 crore to the Ministry of New and Renewable Energy in the Union Budget 2026-27, a 30% increase from the previous year. Additional support includes INR 22,000 crore for the PM Surya Ghar: Muft Bijli Yojana and targeted customs-duty concessions for selected solar-manufacturing, battery-storage and critical-mineral-processing inputs

India's renewable energy capacity, which includes wind, solar, biomass, hydro, and waste-to-energy, totals approximately 291.73 GW. With solar power accounting for 164.59 GW and wind power contributing 58.14 GW, India is well-positioned to meet its ambitious goals of reducing carbon emissions, with a commitment to achieve net-zero by 2070. As of February 2026,¹² the government had sanctioned 55 solar parks with a combined capacity of approximately 39.97 GW, of which 16.12 GW had been commissioned by December 2025. offshore wind energy and the National Green Hydrogen Mission are key growth areas, targeting 30 GW of wind capacity and 5 MMT of green hydrogen production by 2030.

The Production Linked Incentive (PLI) Scheme is a crucial initiative supporting India's renewable energy sector, specifically targeting solar PV manufacturing. Launched under the Atmanirbhar Bharat initiative, the scheme aims to build 65 GW of annual manufacturing capacity, providing direct and indirect employment opportunities while promoting import substitution. The renewable energy landscape in India continues to attract significant investment, with numerous projects and opportunities, reflecting the country's strong commitment to sustainable growth and energy security.

Solar Power Generation Scenario in India

India has rapidly ascended as a global leader in solar power generation, ranking 3rd globally in solar power capacity and 3rd in renewable energy installations, including large hydro. As of July 2026,, India has achieved a cumulative installed solar power capacity of 164.59 GW. This includes 122.57 GW from ground-mounted solar plants, 30.74 GW from grid-connected solar rooftop systems, 4.77 GW from the solar component of hybrid projects, and 6.51 GW from off-grid solar installations.¹³ These figures highlight the diverse contributions of various solar technologies toward the country's renewable energy goals, showcasing steady progress in expanding solar capacity across different segments.

¹⁰ Ministry of New and Renewable Energy

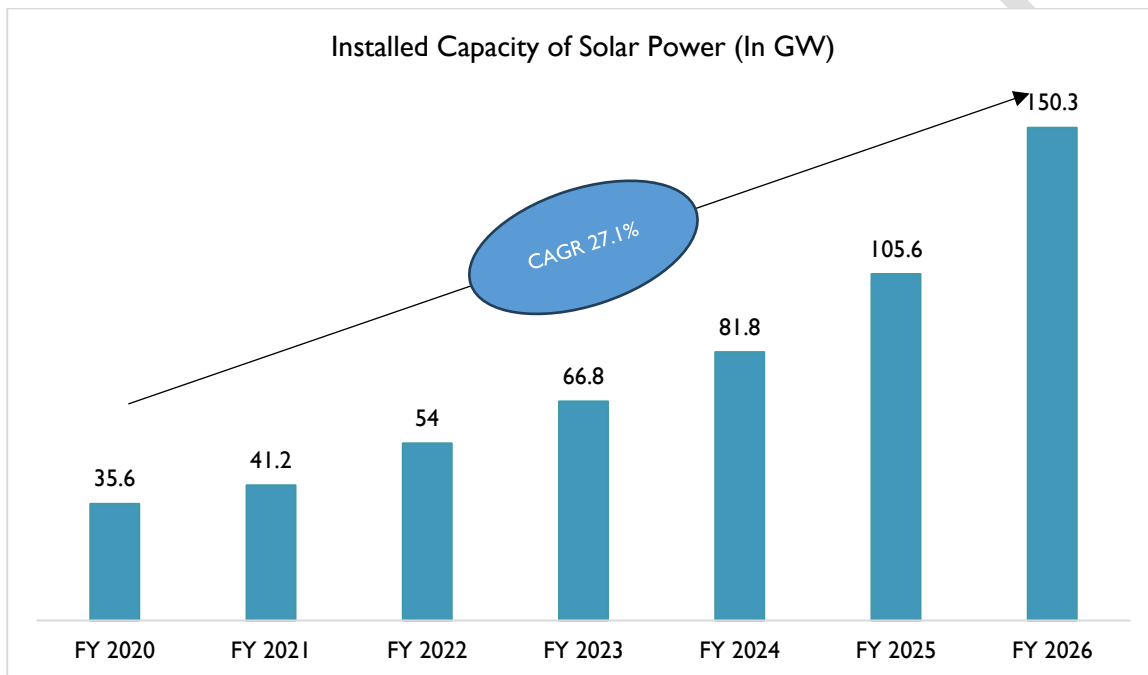
¹¹ <https://www.pib.gov.in/FactsheetDetails.aspx?id=150868&NotelId=150868&ModuleId=16®=48&lang=2>

¹² https://sansad.in/getFile/loksabhaquestions/annex/187/AU913_OrUEGe.pdf?source=pqals

¹³ Ministry of New and Renewable Energy

India has witnessed remarkable technological advancements in solar power, with the installed solar capacity growing 30 times over the past nine years. A new study by The Energy and Resources Institute (TERI) has estimated India's total solar potential at 10,830 GW, a sharp increase from the 748 GW assessed in 2014 by the Ministry of New and Renewable Energy (MNRE), highlighting not only the vast scope across the country's 300 sunny days annually but also additional opportunities beyond conventional deployment on barren and unculturable lands.

The TERI report, "Reassessment of Solar Potential in India: A Macro-level Study," projects 4,909 GW from ground-mounted PV, 100 GW from floating solar, 960 GW from rooftops, 4,177 GW from agrivoltaics, and 684 GW from urban and infrastructure-integrated systems, presenting a comprehensive and scalable roadmap for India's renewable energy ambitions.



Source: Ministry of New and Renewable Energy

India's solar power sector has demonstrated robust growth, marked by a significant increase in installed capacity over the past six fiscal years. Beginning at 35.6 GW in FY 2020, the country's solar power capacity surged to 150.3 GW by FY 2026, reflecting a notable compound annual growth rate (CAGR) of 27.1%. This rapid expansion underscores India's strategic push towards renewable energy, with substantial investments and policy initiatives driving the adoption of solar technologies across the nation. The upward trajectory in solar installations highlights India's commitment to achieving energy security, reducing carbon emissions, and leveraging its abundant solar resources for sustainable development.

India's solar power sector has seen significant growth and development, reflecting the country's commitment to renewable energy. As of 2026, India aims to achieve a solar power capacity of 280 GW by 2030, with current installations reaching 150.3 GW. Rajasthan leads with 42.17 GW, driven by projects like the Bhadla Solar

Park, the world's largest fully operational solar park. Gujarat follows with 32.30 GW, emphasizing projects like the Charanka Solar Park and plans for a massive renewable energy park in Kutch. Maharashtra ranks third with 20.26 GW, anchored by the Maha Solar Park. Tamil Nadu and Karnataka round out the top five states with 13.90 GW and 11.34

GW, respectively. Each state showcases ambitious targets and substantial investments in solar energy infrastructure, underscoring India's rapid advancement in green power generation.

As of FY 2026¹⁴, Bhadla Solar Park in Rajasthan is one of India's largest solar parks, with an installed capacity of **2,245 MW** spread across approximately **5,700 hectares (56 km²)**. Developed in phases, the park has established Rajasthan as a major hub for utility-scale solar power and is recognised as **one of the world's largest solar power complexes**. Securing a long-term power purchase agreement ensures the sale of generated electricity, underscoring India's commitment to renewable energy transition. Moreover, India's initiatives extend to innovative projects like the Kutch Solar Project, aimed at providing electricity to remote regions through advanced technologies such as solar ponds and integrated solar stills with greenhouses. These efforts highlight India's strategic focus on sustainable development and reducing reliance on fossil fuels, positioning it as a global leader in the solar energy sector.

Solar Power: Technologies Deployed

Solar power harnesses energy from the sun using various technologies, each suited for different applications and environments. The primary technologies deployed in solar power generation in India include:

Solar Photovoltaic (PV) Technology

Solar Photovoltaic (PV) technology converts sunlight directly into electricity using semiconductor materials, primarily silicon, and is the most widely deployed technology in India, significantly contributing to the country's installed capacity.

PV systems include monocrystalline solar panels, known for high efficiency and space optimization but typically more expensive; polycrystalline solar panels, which are more affordable but less efficient; and thin-film solar panels, which are lightweight and flexible but generally have lower efficiency.

Tata Power Solar produces both monocrystalline and polycrystalline panels and is involved in large-scale solar PV projects across India, while Adani Solar, a subsidiary of Adani Group, manufactures both types of panels and operates a significant 2,000 MW solar farm in Khavda, Gujarat, part of the world's largest solar park.

Rooftop solar systems have gained popularity for residential and commercial buildings due to government incentives and net metering policies that allow self-generated electricity, while large-scale ground-mounted solar farms, known as solar parks, include notable examples like Bhadla Solar Park (2,245 MW) in Rajasthan and Pavagada Solar Park (2,050 MW) in Karnataka.

The combination of these technologies and manufacturers demonstrates India's commitment to expanding its solar energy capacity and transitioning to renewable energy sources.

Concentrated Solar Power (CSP)

CSP technology utilizes mirrors or lenses to concentrate sunlight onto a small area, generating heat that is then used to produce electricity through steam turbines. This process enables efficient conversion of solar energy into electricity, making CSP a viable option for large-scale energy production.

¹⁴ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2293256®=24&lang=15>

CSP systems are most effective in large-scale utility projects, where they can harness significant amounts of solar energy. One of the key advantages of CSP is its ability to incorporate thermal energy storage systems. This capability allows CSP plants to store heat generated during sunny periods and use it to produce electricity even when sunlight is not available, providing a more stable and reliable energy supply.

The 100 MW solar thermal power plant located in Dhursar village, Rajasthan, exemplifies CSP technology in India. This plant utilizes parabolic trough technology, which consists of curved mirrors that focus sunlight onto a receiver tube filled with heat transfer fluid. The heated fluid then produces steam that drives a turbine to generate electricity, showcasing the practical application of CSP in the country.

While Bhadla Solar Park is primarily known for its photovoltaic (PV) installations, it has also begun experimenting with hybrid systems that integrate CSP technologies. This innovative approach aims to enhance energy output by combining the strengths of both PV and CSP, potentially improving efficiency and reliability in solar energy generation.

Although CSP technology is less common than photovoltaic (PV) technology in India, it is increasingly being explored for its potential to provide effective energy storage solutions. As India seeks to diversify its renewable energy portfolio and enhance energy security, CSP's ability to store thermal energy could play a significant role in the future of the country's solar energy landscape.

Solar Thermal Systems

Solar thermal systems collect sunlight to produce heat, which can be utilized for various applications, including residential water heating and space heating. These systems play a vital role in promoting the use of renewable energy for domestic and industrial purposes.

Solar Water Heaters: These systems utilize solar collectors to heat water for domestic use, offering an efficient and sustainable alternative to traditional water heating methods, thereby reducing energy costs and reliance on fossil fuels.

Solar Air Heaters: Designed to heat air for space heating, solar air heaters are commonly employed in buildings and industrial processes. They contribute to reducing energy consumption and enhance overall energy efficiency in various applications.

Solar Thermal Projects:

Rajasthan Solar Water Heating Project: This comprehensive initiative has been implemented across residential, commercial, and industrial sectors in Rajasthan. The project promotes the adoption of solar water heating systems, significantly reducing reliance on fossil fuels and lowering energy costs for users.

Sundarbans Solar Thermal Project: This initiative focuses on providing solar thermal systems for cooking and water heating in rural areas of the Sundarbans. By enhancing energy access and promoting sustainability, the project aims to improve the quality of life for residents in these regions through the utilization of renewable energy resources.

Building-Integrated Photovoltaics (BIPV)

Building-Integrated Photovoltaics (BIPV) systems incorporate solar cells into building materials, such as windows, roofs, and facades, enabling buildings to generate energy while maintaining aesthetic appeal. This innovative technology serves the dual purpose of energy generation and structural support.

The Indian Institute of Technology (IIT) Madras has successfully integrated solar panels into its building structures. This initiative demonstrates the feasibility of BIPV in urban environments and promotes energy efficiency on campus, showcasing a commitment to sustainable building practices.

The Solar House Project, located in Delhi, the Solar House project exemplifies BIPV technology, where solar panels are seamlessly integrated into the building's facades and roofs. This project highlights the potential for energy generation while preserving the aesthetic integrity of architectural designs.

By integrating solar technology into building materials, BIPV systems can reduce reliance on traditional energy sources, lower energy costs, and contribute to the overall sustainability of urban infrastructure. As cities continue to grow, BIPV offers a promising solution for incorporating renewable energy into the built environment, potentially transforming urban landscapes into energy-producing structures while enhancing their visual appeal.

Floating Solar Farms

- Floating solar farms consist of solar panels mounted on floating structures on bodies of water. This innovative approach helps reduce land use, minimizes evaporation, and can enhance the efficiency of solar panels due to the cooling effects provided by the water.
- Kolar Floating Solar Project: Located in Karnataka, the Kolar Floating Solar Project has a capacity of 54 MW. This project effectively utilizes water surfaces for deploying solar panels, thereby minimizing land use and enhancing overall efficiency.
- NTPC Floating Solar Project: The National Thermal Power Corporation (NTPC) has commissioned a floating solar project in Andhra Pradesh with a capacity of 100 MW. This initiative showcases the potential of floating solar technology in utilizing water bodies for renewable energy generation.
- Mudasarlova Reservoir Floating Solar Project: Another significant project is the Mudasarlova Reservoir Floating Solar Project in Andhra Pradesh, which has a capacity of 2 MW. This installation exemplifies the application of floating solar technology in enhancing energy production while conserving land resources.
- Expansion of Floating Solar Technology: NTPC has also developed floating solar plants in Telangana and other states, indicating a growing interest and investment in floating solar technology across India, aimed at maximizing renewable energy output while minimizing ecological impact.

Hybrid Solar Systems

- Hybrid solar systems combine different solar technologies or integrate solar power with other renewable energy sources to optimize energy generation and enhance reliability. This approach allows for a consistent power supply by addressing fluctuations in solar energy availability.
- Integration with Other Sources: For instance, solar photovoltaic (PV) systems can be paired with wind energy or energy storage systems, creating a more stable and reliable energy solution for various applications.
- Tata Power Hybrid Solar Projects: Tata Power has successfully developed hybrid solar projects that integrate solar PV with wind energy. These projects are strategically implemented in various locations, significantly enhancing energy reliability and consistency in power supply.

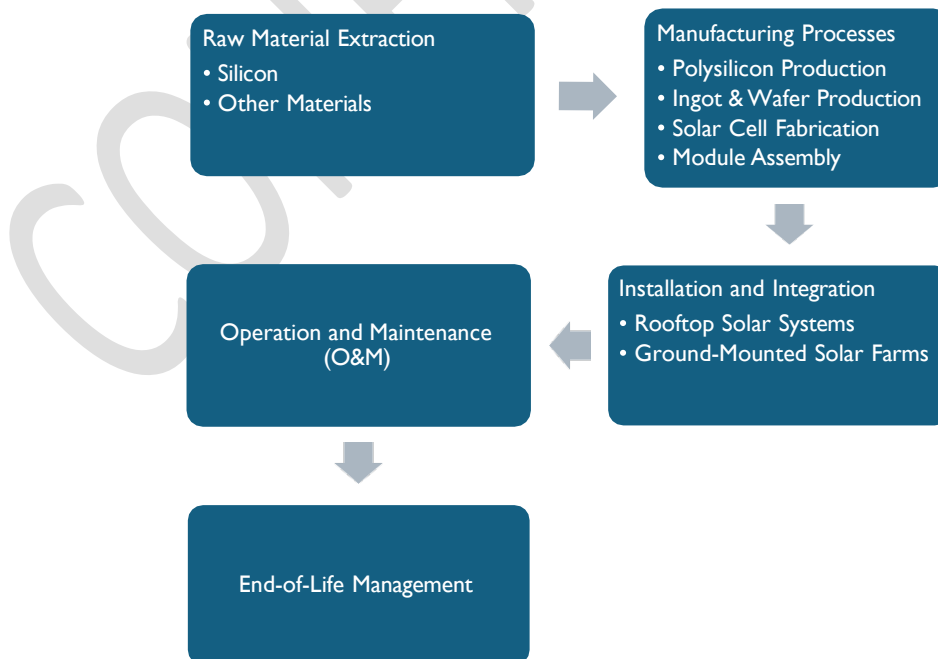
- **Renew Power Initiatives:** Renew Power has made substantial investments in hybrid projects that combine solar PV with energy storage systems. This innovative approach not only improves grid stability but also helps meet peak demand, making renewable energy more accessible and dependable.
- By leveraging multiple energy sources, hybrid solar systems enhance overall energy security, reduce dependency on a single source, and contribute to a more resilient and efficient power grid.

Agrivoltaics

- Agrivoltaics is an emerging technology that involves co-locating solar panels with agricultural activities. This innovative approach allows for simultaneous solar energy generation and crop production, maximizing land use and providing dual benefits for energy and food production.
- An agrivoltaics pilot project in Gujarat exemplifies this technology by installing solar panels on agricultural land. This setup enables farmers to cultivate crops beneath the solar panels while generating renewable energy.
- The agrivoltaics approach optimizes land use, allowing farmers to increase their income by leveraging both crop production and renewable energy generation.
- By integrating solar energy with agriculture, agrivoltaics contributes to sustainable land management practices and supports the transition to cleaner energy sources.
- This technology holds significant potential for expansion across various regions in India, promoting food security while contributing to the country's renewable energy goals.

Value Chain of Solar Parts

The solar power value chain encompasses various stages, from raw material extraction to the final installation of solar systems. Understanding this value chain is crucial for analyzing the solar industry's dynamics and identifying opportunities for efficiency and innovation.



- **Raw Material Extraction:** The primary material used in solar panel production is silicon, extracted and purified to create polysilicon. Other essential materials include silver, used for conductive layers, glass for panel coverings, and aluminium for framing.
- **Manufacturing Processes:** Polysilicon undergoes purification to produce chunks, which serve as the feedstock for solar cells. In the subsequent stages, polysilicon is melted and formed into cylindrical ingots. These ingots are sliced into thin wafers, the foundation for solar cell fabrication. The wafers are then processed to create solar cells, which convert sunlight into electricity. Finally, these cells are assembled into solar modules or panels and encapsulated for environmental protection.
- **Installation and Integration:** Solar installations are implemented either as rooftop systems, typically deployed on residential and commercial buildings, or as ground-mounted solar farms, large-scale installations connected to the electrical grid or operating off-grid.
- **Operation and Maintenance (O&M):** Post-installation, solar systems require regular maintenance to ensure efficient performance. This includes cleaning solar panels, inspecting electrical connections, and monitoring overall system functionality.
- **End-of-Life Management:** As the solar industry evolves, recycling processes for decommissioned solar panels are gaining importance, with efforts focused on recovering valuable materials for reuse.

Solar Cell & Module Scenario

India's solar manufacturing sector is expanding rapidly, supported by the Production-Linked Incentive (PLI) Scheme and the Approved List of Models and Manufacturers (ALMM). Solar PV module manufacturing capacity reached about 72 GW as of 31 March 2026¹⁵, reflecting a substantial expansion of domestic manufacturing capability. Solar cell manufacturing capacity has also increased, with 27 GW enlisted under ALMM List-II by March 2026. The ALMM framework for solar PV cells became applicable from 1 June 2026, strengthening domestic sourcing requirements for eligible solar projects. India's solar deployment continues to provide strong domestic demand for locally manufactured equipment. Cumulative solar power capacity reached ¹⁶164.59 GW as of July 2026, supporting further expansion of the domestic solar manufacturing ecosystem. Going forward, continued PLI support, ALMM requirements and rising solar installations are expected to strengthen domestic cell and module manufacturing. The government has also expanded the ALMM framework to ingots and wafers, with implementation scheduled from 1 June 2028, supporting greater domestic value addition across the solar PV supply chain.

The PLI scheme continued to strengthen India's domestic solar manufacturing ecosystem during FY 2026, with 11 selected manufacturers under Tranche-II awarded 39.6 GW of fully or partially integrated manufacturing capacity. The scheme has a total outlay of INR 24,000 crore, including INR 19,500 crore for Tranche-II, supporting the development of an integrated domestic supply chain for high-efficiency solar PV modules.¹⁷

¹⁵ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2250039&lang=1®=3>

¹⁶ <https://mnre.gov.in/en/physical-progress>

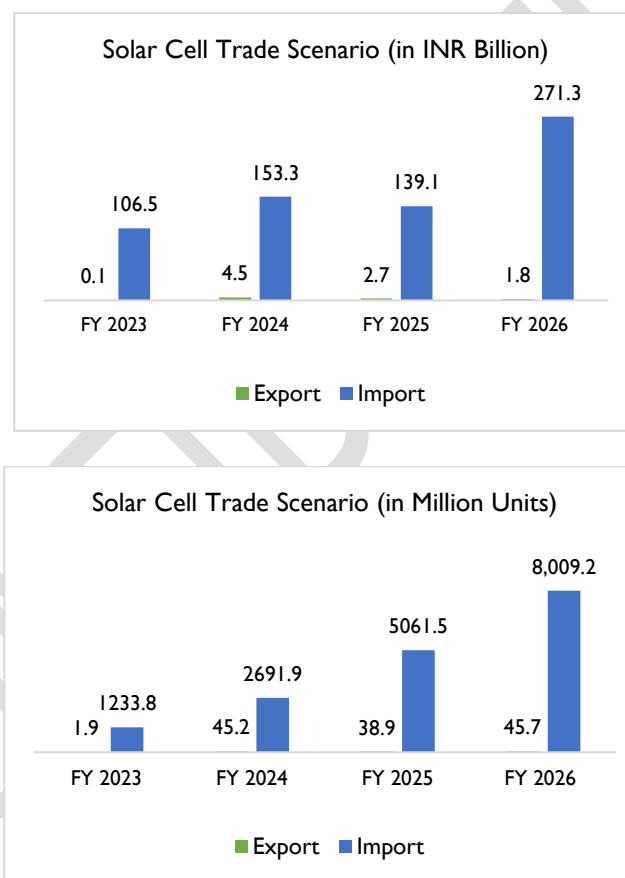
¹⁷ <https://mnre.gov.in/en/production-linked-incentive-pli/>

Foreign Trade: Export & Import Scenario

Solar Cell¹⁸

India's solar-cell trade continued to show a substantial imbalance between imports and exports during FY 2023 to FY 2026. In value terms, solar-cell imports increased from INR 106.5 billion in FY 2023 to INR 153.3 billion in FY 2024, before moderating to INR 139.1 billion in FY 2025. Imports then rose sharply to a record INR 271.3 billion in FY 2026, nearly doubling from the previous year. In comparison, exports increased from INR 0.1 billion in FY 2023 to INR 4.5 billion in FY 2024, before declining to INR 2.7 billion in FY 2025 and INR 1.8 billion in FY 2026.

In volume terms, solar-cell imports increased from 1,233.8 million units in FY 2023 to 2,691.9 million units in FY 2024, 5,061.5 million units in FY 2025 and a record 8,009.2 million units in FY 2026. Export volumes rose from 1.9 million units in FY 2023 to 45.2 million units in FY 2024, declined to 38.9 million units in FY 2025 and recovered to 45.7 million units in FY 2026.



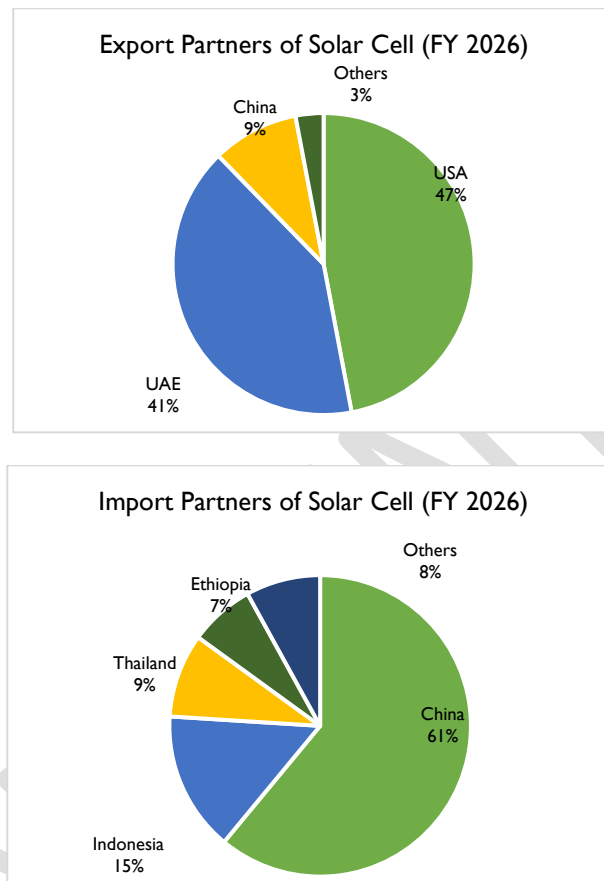
Source: Ministry of Trade and Commerce

In FY 2026, India imported approximately 8,009.2 million solar cells valued at INR 271.3 billion, compared with exports of only 45.7 million units valued at INR 1.8 billion. The widening trade gap indicates that India remains heavily dependent on imported solar cells despite the expansion of domestic manufacturing capacity. This highlights the need to accelerate domestic cell manufacturing, strengthen upstream integration and improve the cost competitiveness of locally manufactured products.

¹⁸ HSN Code Considered: 85414200

Trading Partner

India's solar-cell exports in FY 2026 were highly concentrated in two key markets. The United States accounted for 47% of total exports, followed closely by the United Arab Emirates at 41%. Together, these two destinations represented 88% of India's solar-cell exports during the year. China accounted for a further 9%, while all other markets collectively contributed only 3%.



Source: Ministry of Trade and Commerce

On the import front, China remained India's largest source of solar cells in FY 2026, accounting for 61% of total imports. Indonesia was the second-largest supplier with a 15% share, followed by Thailand at 9% and Ethiopia at 7%, while other countries collectively accounted for the remaining 8%. Although India sourced solar cells from several markets, China's dominant share indicates continued dependence on a concentrated overseas supply base. The import pattern highlights the gap between domestic demand and local cell-manufacturing capacity, reinforcing the need to expand domestic production, strengthen upstream integration, adopt advanced technologies and improve the cost competitiveness of India's solar-manufacturing industry.

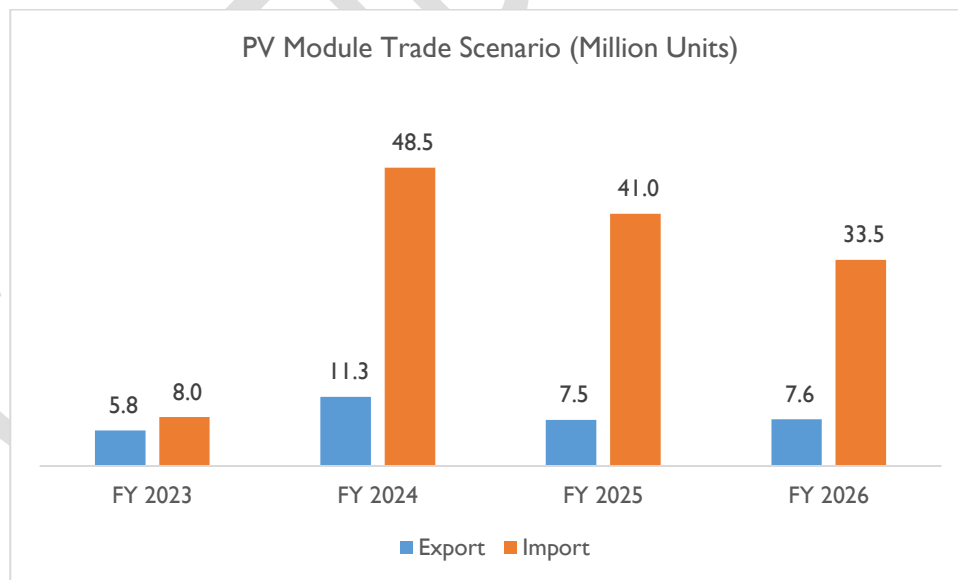
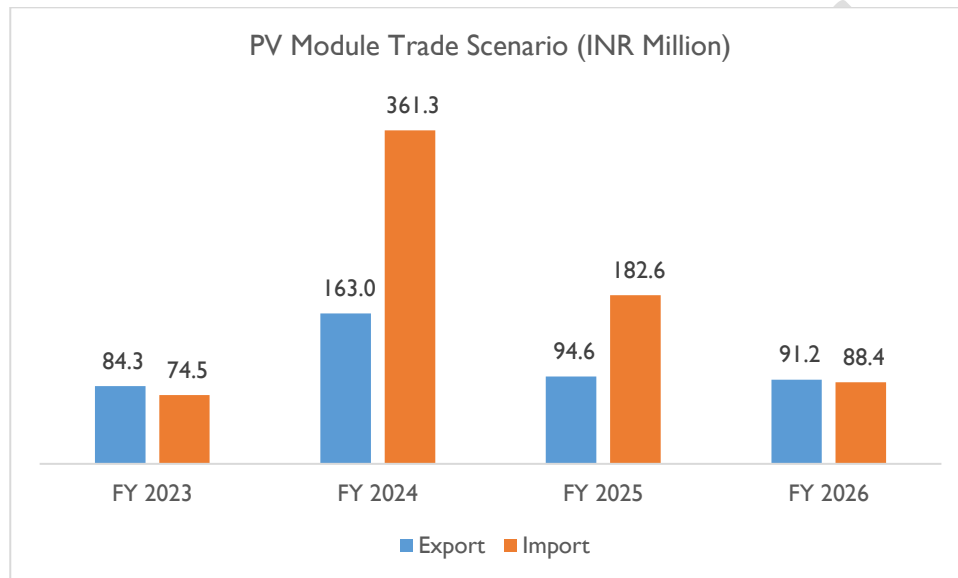
Solar PV module¹⁹

India's photovoltaic module trade recorded considerable fluctuations between FY 2023 and FY 2026. In value terms, PV module exports stood at INR 84.3 billion in FY 2023, exceeding imports of INR 74.5 billion and resulting in a modest

¹⁹ HSN code considered: 85414300

trade surplus. In FY 2024, exports increased to INR 163.0 billion, but imports rose more sharply to INR 361.3 billion, turning India into a substantial net importer. Both trade flows moderated in FY 2025, with exports declining to INR 94.6 billion and imports falling to INR 182.6 billion.

In FY 2026, exports eased further to INR 91.2 billion, while imports declined significantly to INR 88.4 billion. Consequently, India returned to a small trade surplus of approximately INR 2.8 billion in value terms. Although export value was slightly higher than import value, the narrow margin indicates a broadly balanced trade position rather than a decisive shift toward export dominance.



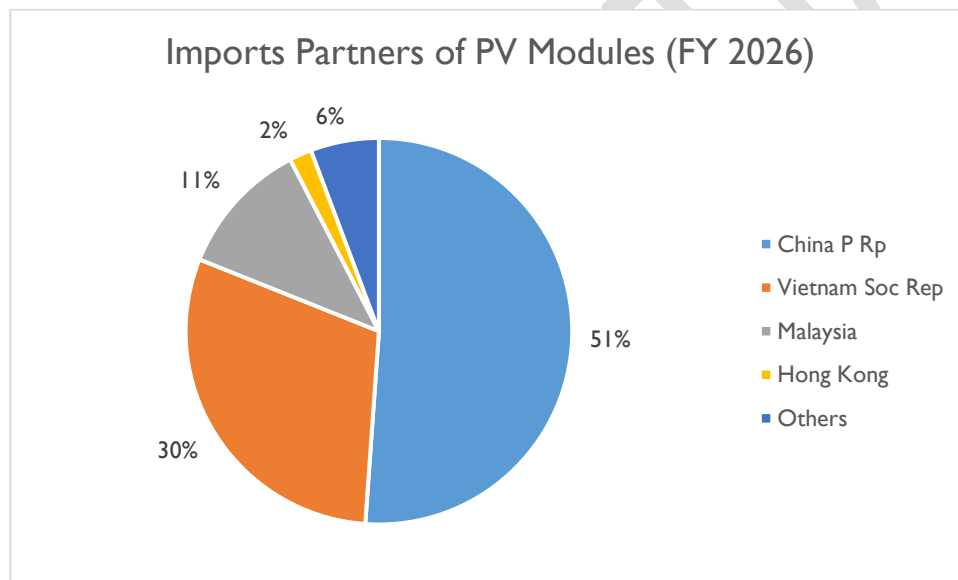
Source: Ministry of Trade and Commerce

In volume terms, India exported 5.8 million PV modules in FY 2023, compared with imports of 8.0 million units. In FY 2024, export volume nearly doubled to 11.3 million units, while import volume increased sharply to 48.5 million units. Export volume subsequently declined to 7.5 million units in FY 2025 before recovering marginally to 7.6 million units in

FY 2026. Imports also moderated, falling from 48.5 million units in FY 2024 to 41.0 million units in FY 2025 and 33.5 million units in FY 2026.

Trading Partner

In FY 2026, China remained India's largest source of imported photovoltaic modules, accounting for 51% of total imports. Vietnam was the second-largest supplier with a 30% share, followed by Malaysia at 11% and Hong Kong at 2%. Other countries collectively contributed the remaining 6%. China and Vietnam together supplied 81% of India's PV module imports, indicating that India's import base remained highly concentrated in a small number of Asian manufacturing markets. Although sourcing from Malaysia and other countries provided some diversification, the import pattern highlights the continued need to expand domestic manufacturing, strengthen upstream supply chains and improve the cost competitiveness of locally produced PV modules.



Source: Ministry of Trade and Commerce

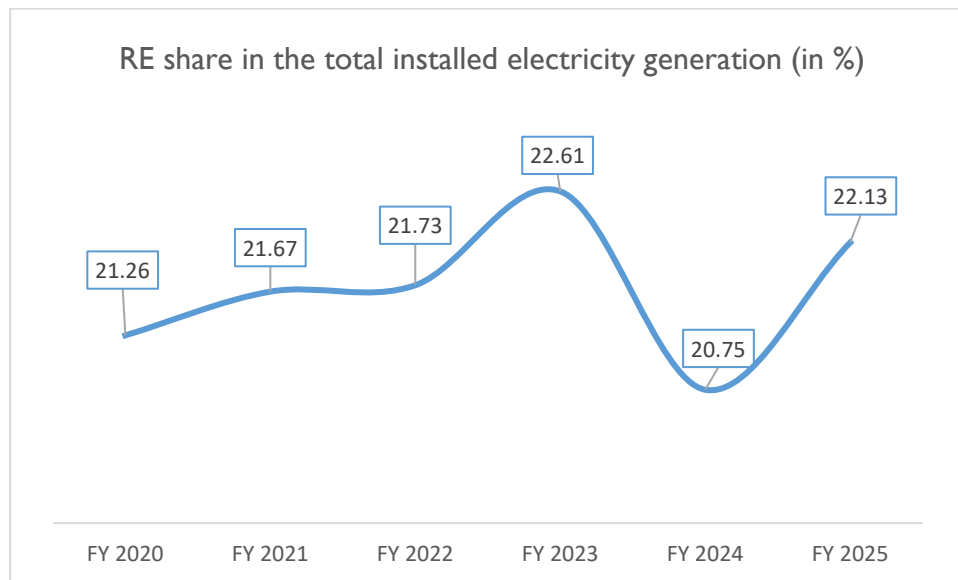
On the export side, India's PV module exports were almost exclusively directed to the United States, with a staggering 97% share in FY 2026. This reflects strong demand from the U.S., likely driven by policies promoting renewable energy adoption and efforts to diversify its supply chain away from China. The minimal export to other markets, comprising only 3%, suggests that while India is making strides in PV module manufacturing, its focus on the U.S. market could present risks if it does not broaden its export base. Diversification into additional markets may be necessary to sustain long-term growth and reduce dependency on a single trade partner.

Key Demand Drivers: Analysis of factors driving the growth in India.

India's solar energy sector is rapidly expanding, driven by several key factors that are shaping the future of this industry. As the country strives to meet its energy needs sustainably and reduce its carbon footprint, solar energy has emerged as a vital solution. Here are ten key factors that are propelling the future of solar energy in India

Rising Energy Demand

The rapid population growth and industrialization in India have driven a significant surge in electricity demand. As urbanization accelerates and the middle class expands, the prevalence of energy-intensive devices has risen, underscoring the urgent need to transition to sustainable energy sources such as solar power to ensure reliable and affordable electricity for all. Between FY 2019-20 and FY 2024-25, the share of renewable energy (in %) towards total installed electricity generation has stayed between 20.75% and 22.61%. With peak in FY 2023, reaching 365.66 BU (22.61%), the generation capacity saw a dip in the successive year to 20.75% share. However, FY2025 electricity generation % with renewable energy is now showing a positive trend (22.13%).



Source: MNRE Statistics FY2025

The Indian government launched the Solar Mission with an ambitious goal of deploying 100 gigawatts (GW) of solar power by 2022. As per the latest data released by the Ministry of New and Renewable Energy (MNRE), India has now reached a cumulative installed solar capacity of 164.59 GW as of July 2026, demonstrating strong progress toward long-term renewable energy goals.

As energy demand continues to surge particularly in rural and semi-urban regions with limited access to conventional electricity solar energy presents a highly viable solution. Its rapid scalability, declining costs, and suitability for decentralized deployment position it as a key driver in bridging the energy access gap and ensuring reliable, affordable, and sustainable electricity for households across both urban and rural India.

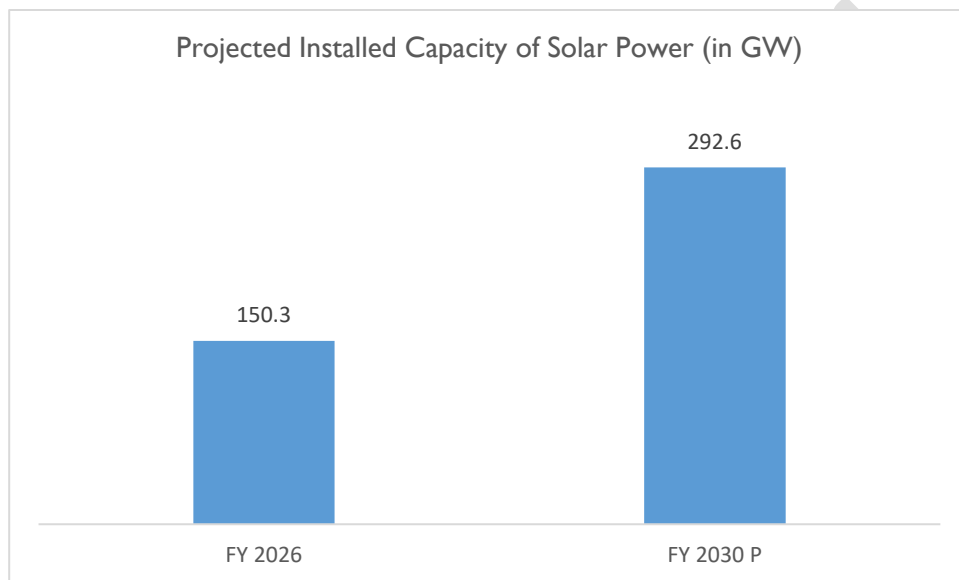
Utilization of Wasteland for Solar PV Installation

India is confronted with substantial waste generation due to its vast population. However, the National Institute of Solar Energy (NISE) highlights the potential of this wasteland for solar power generation. NISE estimates that if merely 3% of India's wasteland were outfitted with solar photovoltaic (PV) modules, the country could harness approximately 748 gigawatts (GW) of solar energy. This is further supported by India's abundant sunlight, receiving an estimated 5,000 trillion kilowatt-hours (kWh) of energy annually, with most regions enjoying between 4 and 7 kWh per square meter each day.

Growth Forecast: Installed Capacity in Solar Power Generation Segment

India's solar power generation segment is on a remarkable growth trajectory, driven by ambitious government initiatives and substantial investments in renewable energy. By the end of 2029-30, the total installed capacity in the country is projected to reach 777,144 MW, with a diverse breakdown that includes 292,566 MW from solar power.

This projection positions India to meet its Nationally Determined Contribution (NDC) commitment, which mandates that 50% of the total installed capacity be derived from non-fossil fuel sources by 2030. As of July 2026, India's installed solar capacity has reached 164.59 GW, a remarkable rise from just 4.0 GW in FY 2015. This represents an increase of more than 41 times over roughly a decade, underscoring the rapid expansion of India's solar-energy sector



Source: CEA, Report on Optimal Generation Capacity Mix For 2029-30 Version 2.0

India's solar power generation capacity has experienced remarkable growth, reflecting the country's commitment to renewable energy. By fiscal year 2019, the installed solar capacity reached 29.1 GW, showcasing a solid foundation for future expansions. The growth trajectory continued, with capacity increasing to 35.6 GW in FY 2020 and 41.2 GW in FY 2021.

This upward trend culminated in significant milestones, as the installed capacity surged to 54.0 GW by FY 2022, 66.8 GW in FY 2023, and further accelerated to 81.8 GW in FY 2024. As of FY 2026, India has achieved an installed solar capacity of 150.3 GW, indicating a robust pace of development in the solar sector. Looking ahead, projections suggest that the country is on track to reach 292.6 GW of solar power capacity by FY 2030.

This ambitious goal aligns with India's broader renewable energy targets and underscores the importance of solar power in the nation's energy landscape. The substantial increases in capacity over the past years not only highlight the effectiveness of government policies and initiatives but also reflect growing investments and advancements in technology, positioning India as a key player in the global renewable energy.

The Energy and Resources Institute (TERI) has estimated India's total solar potential at 10,830 GW, a sharp increase from the 748 GW assessed in 2014 by the Ministry of New and Renewable Energy (MNRE). signifying considerable opportunities for further capacity additions. As India strives to achieve net-zero carbons emissions by 2070, the solar

power sector is set to play a pivotal role in shaping the nation's sustainable energy landscape, aligning with global climate objectives while positioning India as a leader in renewable energy.

CONFIDENTIAL

Solar EPC Business Model

Solar EPC Business Model

The Engineering, Procurement, and Construction (EPC) business model is widely adopted in the solar industry due to its comprehensive, turnkey nature. In this model, a solar EPC company takes full responsibility for designing, procuring materials, and constructing a solar power project. The process starts with the engineering phase, where technical teams develop detailed project designs, including electrical schematics, structural layouts, and energy output forecasts. These designs are aligned with both the client's specifications and regulatory requirements. The goal is to create an efficient, high-performing solar system tailored to the project's site and conditions.

Next is the procurement phase, where the EPC company sources all the essential components needed for the solar installation. This includes solar panels, inverters, wiring, mounting structures, and other equipment. Leveraging strong supplier relationships, the company can secure high-quality materials at competitive prices, which is critical for ensuring both cost efficiency and system longevity. The final stage of the EPC model is construction, where the project is physically built, installed, and connected to the grid. During this phase, the company oversees the on-site installation, project management, and commissioning of the solar system to ensure it meets performance guarantees and is completed on time and within budget. This end-to-end service model makes EPC highly appealing to developers and investors seeking turnkey solutions for solar power projects.

Utility-Scale Solar Technology

Utility-scale solar refers to large solar power plants, typically ranging from several megawatts (MW) to gigawatts (GW) in capacity, designed to supply electricity to the grid. These projects occupy vast land areas and contribute significantly to national renewable energy targets. India has emerged as a leader in the global utility-scale solar market, driven by government initiatives such as the National Solar Mission and favourable policies like competitive bidding for solar projects.

Utility-scale solar systems primarily consist of ground-mounted solar arrays that supply electricity directly to the grid. The energy generated is then distributed through the national grid to meet the demand of residential, commercial, and industrial consumers. As of 31 March 2026, India's utility-scale solar capacity reached 110.43 GW, up from the 50 GW-plus level recorded earlier, with large-scale projects continuing to expand across major solar-producing states such as Rajasthan, Gujarat, and Karnataka. Utility-scale projects remain a key driver of India's solar expansion, contributing to the country's 150.26 GW of cumulative installed solar capacity as of March 2026.

One of the key advantages of utility-scale solar is its ability to generate power at a lower cost per kilowatt-hour (kWh) due to economies of scale. However, these projects face challenges such as land acquisition, grid integration, and intermittency issues. Investments in transmission infrastructure and technological advancements in energy storage are critical to overcoming these barriers and ensuring the stable growth of utility-scale solar.

Hybrid Solar Technology

Hybrid solar systems combine solar PV with other energy sources, such as wind, battery storage, or diesel generators, to create a more reliable and efficient energy solution. Hybrid systems are particularly useful in areas with unreliable grid access or frequent power outages, as they offer flexibility in power generation and consumption.

Hybrid systems are gaining traction in India, especially in rural or remote locations where grid connectivity is limited. For example, solar-wind hybrid projects are being developed in states like Tamil Nadu and Gujarat, where the complementary nature of solar and wind resources ensures more consistent power generation throughout the day. The government has introduced specific policies to promote hybrid projects, including favourable tariffs and land-use incentives.

The integration of **battery storage** in hybrid systems further enhances their reliability by storing excess solar power generated during the day for use during night or cloudy periods. This feature addresses one of the major challenges of solar power – its intermittent nature – and ensures a continuous power supply, which is critical for commercial and industrial applications.

Application Basis

Solar technology can be broadly categorized based on its application into **residential**, **commercial**, and **industrial** sectors. Each application has different energy needs, installation scales, and financial incentives.

- **Residential:** Solar energy systems for residential applications typically involve small-scale rooftop installations. These systems are designed to meet the electricity needs of individual households, reducing their dependency on the grid and lowering electricity bills. In India, residential rooftop solar has been growing, supported by government subsidies and falling solar PV prices.
- **Commercial:** Commercial applications of solar energy often involve medium to large-scale rooftop installations for businesses, shopping malls, hotels, and office buildings. These systems provide significant cost savings on electricity bills, especially for businesses operating in high electricity tariff zones. Additionally, companies can benefit from tax incentives, making solar a lucrative option.
- **Industrial:** Industrial solar installations are typically larger in scale and may involve both rooftop and ground-mounted systems. The industrial sector consumes a large amount of energy, and solar power provides a cost-effective solution to reduce operational costs. Many large factories and manufacturing units in India are investing in solar to reduce their carbon footprint and improve energy efficiency.

Basis of Project Size

Solar projects can also be classified based on their size – **small**, **medium**, and **large** – depending on the capacity and energy output.

- **Small Projects:** These are typically residential solar systems with a capacity ranging from a few kilowatts (kW) to 100 kW. Small solar projects are easy to install and maintain, and they offer significant savings on electricity bills for individual households or small businesses.
- **Medium Projects:** Medium-sized solar projects often fall between 100 kW to 1 MW. These are commonly found in commercial applications or large residential complexes. Medium-sized installations offer higher energy savings and are typically more financially attractive, especially with favorable net metering policies and government incentives.

- **Large Projects:** Large-scale solar projects, which can range from 1 MW to several hundred megawatts, are usually utility-scale or industrial projects. These projects are often developed by solar companies or energy providers and feed electricity into the grid. Large projects require significant land and capital investment but offer economies of scale, making solar energy generation more cost-efficient per unit of energy.

India's solar energy industry, driven by the rapid adoption of these technologies across different sectors, plays a key role in meeting the country's renewable energy goals. Expanding the use of rooftop solar, utility-scale plants, and hybrid systems will be essential in ensuring India's energy security and sustainability in the coming decades.

EPC Services in the Solar Power Generation Segment

The Engineering, Procurement, and Construction (EPC) model is vital for the effective execution of solar power projects, offering a comprehensive approach that covers the entire lifecycle of solar installations. This model addresses the inherent complexities of the solar industry, providing tailored engineering designs based on feasibility studies, site surveys, and environmental assessments. EPC companies are responsible for procuring high-quality components such as solar panels and inverters while ensuring compliance with industry standards. During construction, these firms manage all aspects of the project, from site preparation to installation and integration, while adhering to safety regulations to mitigate risks.

EPC services extend beyond construction to include rigorous commissioning and ongoing operation and maintenance (O&M) support. Once a solar installation is complete, systems undergo thorough testing to ensure optimal performance before handing over the project to the client, complete with operational guidelines. This model offers significant advantages, including a single point of responsibility that simplifies communication and project management. By streamlining processes and enhancing resource allocation, EPC providers play a crucial role in advancing India's solar market, ultimately facilitating the nation's transition toward renewable energy and sustainable development.

EPC Business Model and Revenue Streams

EPC Business Models

Integrated Project Management: The EPC model emphasizes a holistic approach to managing solar power projects, encompassing all phases from initial design to final commissioning. This integration ensures seamless coordination among various project components, reducing delays and inefficiencies. EPC companies often employ project managers who oversee timelines, budgets, and quality control throughout the project lifecycle.

Single Point of Responsibility: By functioning as a single contractor responsible for all aspects of the project, EPC firms simplify communication between stakeholders. This streamlined approach minimizes potential conflicts and miscommunication, as clients have one primary contact for updates, changes, and issues. It also fosters accountability, as the EPC provider is fully invested in the project's success.

Contractual Framework: The EPC business model operates within clearly defined contractual agreements that specify the roles, responsibilities, and deliverables for all parties involved. These contracts outline the scope of work, timelines, payment schedules, and performance expectations, providing a structured foundation for project execution. Such transparency helps in managing client expectations and mitigating risks.

Revenue Streams

Engineering Services Fees

Revenue from engineering services includes fees charged for design, technical planning, and feasibility studies. EPC companies leverage their expertise to create customized solar solutions tailored to specific site conditions and client needs. This phase may also involve conducting site surveys and environmental assessments to ensure regulatory compliance and optimal energy production.

Procurement Margins

EPC firms generate profits through strategic sourcing of materials, including solar panels, inverters, and mounting structures. By establishing strong relationships with manufacturers, they can negotiate competitive pricing and favourable warranty terms. The procurement process not only contributes to project cost efficiency but also ensures the quality of components, which is crucial for the longevity of solar installations.

Construction Contracts

Revenue from construction contracts comes from the actual installation of solar systems. This includes site preparation, installation of solar panels, electrical wiring, and system integration. The construction phase is critical as it directly impacts the project timeline and budget. EPC providers oversee all construction activities, ensuring adherence to safety regulations and industry standards.

Operation and Maintenance (O&M) Contracts

Many EPC companies offer long-term O&M contracts to monitor and maintain system performance post-installation. These services include regular inspections, repairs, and performance optimization to ensure that solar installations generate energy efficiently throughout their lifespan. O&M contracts provide a stable revenue stream for EPC firms and foster long-term client relationships.

Performance Guarantees

Some EPC providers offer performance guarantees, which are additional fees tied to achieving specific energy output or efficiency metrics. By ensuring that the solar power systems meet predetermined performance standards, EPC companies not only enhance their service offerings but also build trust with clients. This model incentivizes the EPC firm to prioritize quality and efficiency throughout the project lifecycle.

Consulting Services

Revenue from consulting services encompasses fees for providing expert guidance on project development, financing, and regulatory compliance. EPC companies often possess in-depth knowledge of the solar industry, enabling them to offer valuable insights to clients seeking to navigate complex regulatory environments or optimize their energy strategies. This consulting revenue stream diversifies the EPC firm's offerings and enhances its market position.

Key Growth Drivers: Analysis of factors driving the growth in India

The Engineering, Procurement, and Construction (EPC) sector in India is witnessing robust growth, driven by several key factors that enhance its overall landscape. These drivers are not limited to any specific industry but encompass the broader EPC framework, leading to increased investments and project execution capabilities across various sectors.

Infrastructure Development

India's ongoing infrastructure development initiatives are a significant catalyst for the EPC business. Government investments in transportation, highways, railways, airports, and urban infrastructure projects continue to create substantial demand for EPC services. Government capital expenditure stood at ₹11.21 lakh crore in FY 2026 (BE), while effective capital expenditure was INR15.48 lakh crore, reinforcing infrastructure as a key driver of economic growth. The national highway network reached 1,46,572 km by December 2025, while high-speed corridors expanded to 5,364 km, creating significant opportunities for EPC companies. As India aims to become a USD 5 trillion economy, continued public investment in infrastructure is expected to support the EPC sector. The Union Budget 2026–27²⁰ proposed public capital expenditure of INR12.2 lakh crore, around 9% higher than the FY 2025–26 budget estimate, with continued emphasis on transport, logistics and infrastructure development.

Additionally, continued investments in rural roads, irrigation, water supply and urban infrastructure are expected to drive demand for EPC services and expand opportunities beyond major metropolitan centres. Infrastructure development is increasingly being supported through large public programmes, creating a sustained pipeline of construction and engineering projects across different regions. The emphasis on renewable energy projects, transportation networks and digital infrastructure will further increase the need for specialised EPC solutions. Rising public capital expenditure, together with greater private-sector participation and infrastructure financing, is expected to sustain project activity and strengthen the role of EPC companies in India's infrastructure development.

Government Policies and Initiatives

Proactive government policies, such as the Make in India initiative and the National Policy on Electronics, encourage domestic manufacturing and infrastructure development. These initiatives aim to reduce import dependence and promote self-sufficiency, thereby increasing the demand for EPC services in various sectors, including energy, manufacturing, and construction.

Public-Private Partnerships (PPP)

The growing trend of public-private partnerships in infrastructure projects has opened new avenues for EPC firms. Collaborations between the government and private players enhance project financing and execution capabilities, fostering an environment conducive to large-scale infrastructure development. The PPP model

²⁰ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2222521®=3&lang=1>

allows for shared risks and resources, making it attractive for EPC companies to participate in high-value projects.

The Government of India's Ministry of Finance is actively promoting public-private partnerships (PPPs) as a key strategy for infrastructure development. The Infrastructure Finance Secretariat (IFS) has been established to harmonize policies and initiatives, aiming to boost private investment in critical sectors such as railways, roads, urban infrastructure, and power. The Private Investment Unit, which operates under the IFS, is responsible for formulating policies, managing financial support schemes like the Viability Gap Funding (VGF) and India Infrastructure Project Development Funding (IIPDF), and providing guidance for PPP projects.

Recent PPP initiatives continue to strengthen private-sector participation in India's infrastructure development. As of FY 2026²¹, the PPP project pipeline comprised 1,022 projects with an estimated value of INR 15.96 lakh crore, including 249 central-sector projects worth INR 11.40 lakh crore and 773 state/UT projects worth INR 4.56 lakh crore. The expanding pipeline highlights the government's focus on leveraging private investment and expertise to accelerate infrastructure development, create employment opportunities and support long-term economic growth.

Urbanization and Smart Cities

Rapid urbanization in India is driving the demand for modern infrastructure and smart city initiatives. The Smart Cities Mission aims to develop 100 cities with advanced infrastructure, technology, and sustainable practices. EPC firms play a crucial role in executing these projects, leading to increased investments in urban development and related services.

India is strengthening its manufacturing ecosystem through the National Industrial Corridor Development Programme (NICDP), under which 12 new industrial smart cities across 10 states were approved with a total project cost of INR 28,602 crore. These projects cover around 25,975 acres, have a combined investment potential of INR 1,52,757 crore, and are expected to generate approximately 9.39 lakh jobs. As of FY 2026²², implementation has progressed across all 12 projects, with SPVs established for all and EPC contractors appointed for 9 projects, supporting the development of integrated, plug-and-play industrial infrastructure and creating significant opportunities for EPC and manufacturing companies.

Additionally, railway infrastructure continues to create significant opportunities for EPC companies. As of 1 April 2026, Indian Railways had 514 infrastructure projects covering 40,000 km, with a total estimated cost of INR 8.31 lakh crore. These include new-line, gauge-conversion and doubling projects aimed at expanding connectivity and improving freight and passenger movement across the country.

Furthermore, hydropower development remains an important infrastructure opportunity, particularly in Northeast India. The government is supporting the development of 15,000 MW of hydropower capacity in the Northeast over eight years, alongside financial assistance for major projects. These investments are

²¹ <https://www.pppinindia.gov.in/ppp-projects-pipeline>

²² <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2232996&lang=2®=48>

expected to strengthen regional power infrastructure, improve energy availability and create opportunities for EPC companies in hydropower generation and associated infrastructure

Technological Advancements

Innovations in construction techniques, project management software, and automation are transforming the EPC sector. The adoption of Building Information Modeling (BIM), modular construction, and digital project management tools enhances efficiency, reduces project timelines, and lowers costs. These technological advancements enable EPC firms to deliver projects more effectively and respond to market demands swiftly.

Sector Diversification

EPC companies are increasingly diversifying their service offerings beyond traditional sectors such as infrastructure and construction. The entry into emerging sectors like renewable energy, healthcare, and environmental management is opening up new growth avenues. This diversification helps EPC firms mitigate risks associated with economic fluctuations in specific industries.

EPC contractors are increasingly expanding into water and urban infrastructure, supported by large-scale government programmes. Under AMRUT 2.0, 592 sewerage and septage management projects worth INR 68,254.90 crore had been approved by FY 2026, creating a substantial pipeline for engineering and construction companies. The growing participation of private players through PPP-based infrastructure projects is further broadening opportunities for EPC contractors, marking a gradual shift towards a more diversified and partnership-driven infrastructure development model.

Increased Private Investments

The influx of private equity and venture capital into the EPC space is driving growth. Investors are recognizing the potential of the EPC sector, particularly in infrastructure and energy projects. This increased funding supports expansion, innovation, and the ability to take on larger projects, enhancing the competitive landscape for EPC firms.

The projected growth of Build-Operate-Transfer (BOT) projects in India, especially within the road sector, indicates a significant shift in the dynamics of infrastructure funding. Starting from FY25, the private sector's share in capital expenditure (capex) is anticipated to rise as government-led investments begin to moderate. In the road sector, the government's capital expenditure—primarily supporting projects under the Hybrid Annuity Model (HAM) and Engineering, Procurement, and Construction (EPC)—is expected to slow down.

Road construction awards are projected to remain strong, with 26,425 km awarded under the Bharatmala Pariyojana by FY26, of which 22,590 km had been constructed. The programme represents an awarded project cost of INR 8.54 lakh crore, while the increasing use of EPC, HAM and BOT models continues to support private-sector participation in road infrastructure. The Bharatmala scheme therefore continues to provide a substantial pipeline of opportunities for EPC contractors.

Rising Energy Demand

The continuous increase in energy demand in India necessitates the expansion of energy infrastructure, including power plants, transmission lines, and renewable energy projects. EPC firms are integral to the development and implementation of these energy projects, driving growth in the sector. The push for renewable energy sources offers substantial opportunities for EPC businesses.

The Indian government continues to expand solar deployment through large-scale and rooftop solar programmes. As of July 2026, India's cumulative solar capacity reached 164.59 GW, while rooftop solar capacity stood at 30.74 GW. Under the PM Surya Ghar: Muft Bijli Yojana, 26.19 lakh rooftop solar systems had been installed by 19 March 2026, with the scheme targeting rooftop solar adoption for 1 crore households by March 2027.

Focus on Sustainability

The global shift towards sustainability and environmental responsibility is influencing EPC practices in India. The demand for eco-friendly construction methods and sustainable project execution is on the rise. EPC companies that prioritize sustainable practices and comply with environmental regulations are likely to gain a competitive edge in the market.

EPC business in India is poised for significant growth due to a combination of factors, including government support, technological advancements, and increasing private investments. The emphasis on infrastructure development, urbanization, and sustainability further enhances the prospects for EPC firms, positioning them as key players in India's economic development trajectory.

Key Success Factors for EPC Companies in India

The success of Engineering, Procurement, and Construction (EPC) companies in India, particularly in the solar power sector, is contingent upon several critical factors that enable these firms to navigate industry complexities and seize growth opportunities.

Technical Expertise and Innovation

A highly skilled workforce proficient in engineering, project management, and construction is imperative for EPC companies. Continuous training and development programs are essential to ensure that employees remain informed about the latest technologies and best practices. Moreover, the integration of cutting-edge technologies, such as Building Information Modeling (BIM), Internet of Things (IoT) for smart projects, and automation, significantly enhances project efficiency and quality, allowing companies to deliver superior results in a competitive market.

Strong Project Management Capabilities

Effective project management is vital for ensuring that projects are completed on time and within budget. This involves meticulous planning, efficient resource allocation, and proactive risk management to anticipate and mitigate potential issues. Additionally, robust supply chain management is crucial for procuring high-

quality materials at competitive prices, which supports project timelines and budgetary constraints. Together, these capabilities contribute to the overall success of EPC projects.

Diversification of Services

Providing a broad spectrum of services—from design and engineering to procurement and maintenance—enables EPC companies to cater to diverse client needs and market segments. This comprehensive offering allows firms to build stronger client relationships and adapt to varying market demands. Furthermore, geographical diversification into international markets helps mitigate risks associated with domestic economic fluctuations and creates additional revenue streams, enhancing the firm's stability and growth potential.

Strong Relationships with Stakeholders

Establishing long-term relationships with clients fosters trust and encourages repeat business, which is vital for sustained growth. Understanding client requirements and delivering customized solutions enhances client satisfaction and loyalty. In addition, collaboration with government agencies facilitates smoother project approvals and access to incentives or subsidies, thereby streamlining operations and providing firms with a competitive edge in the market.

Financial Stability

Maintaining a robust financial position is essential for EPC companies to invest in new technologies, expand operations, and withstand economic downturns. Access to capital enables firms to pursue innovative projects and enhance their service offerings. Effective risk management strategies are also critical, as they help address potential challenges such as cost overruns, regulatory changes, and project delays, ensuring sustained profitability in a volatile market environment.

Commitment to Sustainability

Adopting sustainable practices not only aligns with global trends but also enhances the company's reputation in an increasingly environmentally conscious market. This includes using eco-friendly materials and ensuring minimal environmental impact during construction processes. Furthermore, with India's commitment to increasing its renewable energy capacity, EPC companies that specialize in solar and other green technologies are well-positioned for substantial growth, capitalizing on the demand for sustainable energy solutions.

Government Support and Policy Alignment

Aligning business strategies with national policies, such as the National Solar Mission, provides EPC firms with a competitive advantage through access to funding and incentives. Understanding and effectively navigating the regulatory landscape is also essential, as it ensures compliance and helps avoid potential legal challenges that could delay projects. By leveraging government initiatives, EPC companies can enhance their operational efficiency and contribute to the broader goals of India's renewable energy sector.

The success of EPC companies in India is rooted in a blend of technical expertise, strong project management capabilities, service diversification, stakeholder relationships, financial stability, sustainability commitments, and alignment with government policies. By focusing on these key success factors, EPC firms can bolster their competitiveness in the rapidly evolving solar power sector and make significant contributions to India's renewable energy objectives.

Challenges Faced by EPC Players in India

EPC (Engineering, Procurement, and Construction) companies in India encounter a range of challenges that can hinder their operations and impact their overall effectiveness in delivering projects, particularly in the renewable energy sector. Below are some of the primary challenges faced by EPC players in India:

Regulatory Hurdles

The complex regulatory landscape in India presents significant challenges for EPC companies. Obtaining necessary approvals and clearances can be time-consuming and often involves navigating bureaucratic red tape. Frequent changes in regulations and policies can further complicate compliance, leading to project delays and increased costs.

Funding and Financial Constraints

Access to adequate financing is a persistent challenge for EPC firms, particularly for large-scale projects. Limited availability of funds, high-interest rates, and stringent lending criteria can restrict the ability of companies to secure the necessary capital for project execution. This financial pressure can affect the planning and delivery of projects, ultimately impacting profitability.

Skilled Labor Shortage

The EPC industry in India faces a shortage of skilled labor, which is critical for the successful execution of projects. Despite a growing number of engineering graduates, there is often a gap between academic training and practical skills required in the field. This shortage can lead to project delays, quality issues, and increased labor costs as companies compete for a limited talent pool.

Supply Chain Disruptions

EPC companies rely heavily on a robust supply chain for timely procurement of materials and equipment. Disruptions caused by global supply chain issues, transportation delays, or fluctuating material prices can significantly impact project timelines and budgets. Companies must develop effective supply chain management strategies to mitigate these risks and ensure consistent material availability.

Technological Adaptation

While adopting advanced technologies can enhance project efficiency, the initial investment and learning curve associated with new technologies can pose challenges for EPC players. Many firms may struggle with

integrating digital tools, such as Building Information Modeling (BIM) and IoT, into their existing processes. This can hinder their ability to leverage technology for improved project outcomes.

Environmental Concerns and Compliance

Increasing environmental awareness and stricter sustainability regulations necessitate that EPC companies adopt environmentally friendly practices in their operations. Compliance with environmental regulations can add complexity to project planning and execution, requiring companies to invest in sustainable technologies and practices, which can increase project costs.

Competition and Price Sensitivity

The EPC sector in India is highly competitive, with numerous players vying for projects. This intense competition often leads to price undercutting, resulting in reduced profit margins. Companies must balance the need to remain competitive with the necessity of delivering quality services while managing costs effectively.

Project Management Challenges

The execution of large-scale projects involves managing multiple stakeholders, tight timelines, and varying client expectations. Ineffective project management can lead to delays, cost overruns, and quality issues. EPC firms need to implement robust project management frameworks to ensure effective coordination and execution of projects.

Ineffective Communication

EPC projects involve multiple stakeholders, including contractors and subcontractors, often spread across different locations. This complexity can lead to communication breakdowns, resulting in costly rework and delays. To mitigate this risk, it is vital to establish clear communication channels. Owners should seek contractors with integrated teams to minimize reliance on subcontractors and simplify stakeholder management, ensuring everyone is informed of progress and any changes.

Budget Overruns

Unexpected increases in material costs, changes in project scope, and inaccurate estimations can lead to budget overruns, sometimes resulting in project failure. To manage this risk, creating detailed budgets and monitoring them throughout the project lifecycle is essential. Contractors should involve experienced estimators and comprehensive staff in budget preparation to enhance accuracy, ensuring all potential variables are accounted for to avoid financial pitfalls.

Project Timeline Delays

Project timelines can be disrupted by various factors, including scope changes, shipping delays, and labor shortages. Such schedule delays jeopardize customer satisfaction and can trigger cost overruns. To mitigate this risk, owners should carefully vet contractors for proven project management methodologies. Techniques

like the Critical Path Method (CPM) help in establishing realistic timelines, while cross-functional teams can streamline execution to maintain project momentum.

Accountability Deficiencies

When problems arise, stakeholders who avoid responsibility can slow down resolution, increasing project costs and timelines. Establishing quality control measures at the project's outset is essential for ensuring performance standards are met. Using contractors that minimize reliance on subcontractors can reduce accountability issues, fostering a collaborative environment where responsibilities are clearly defined and addressed.

Design and Quality Assurance Issues

Poor initial design can lead to performance issues later in the project. To prevent this risk, adopting a project-centred delivery approach that uses proven technologies allows for better customization. This ensures that designs meet the unique specifications of the end-user, leading to enhanced performance and satisfaction.

Outlook for the EPC Market

The outlook for India's Engineering, Procurement, and Construction (EPC) market remains highly positive, supported by strong government-led infrastructure spending and a robust pipeline of ongoing projects. Under the Union Budget 2026–27, India has committed **INR 12.22 lakh crore towards capital expenditure**, equivalent to 3.1% of GDP, ensuring sustained EPC demand across sectors. Continued expansion of highways, railways, and other transport infrastructure, along with the government's focus on long-term infrastructure development, further strengthens the sector's growth prospects.

In addition, government-backed initiatives in renewable energy, including the target of achieving 500 GW of non-fossil fuel capacity by 2030, are driving a large pipeline of EPC opportunities in solar parks, wind farms, hydropower, and transmission networks. As of 31 March 2026, India had 283.46 GW of installed non-fossil fuel capacity, strengthening the outlook for renewable-energy and power-transmission EPC projects. Urban infrastructure programs like AMRUT 2.0 continue to boost EPC requirements in water supply, sewerage and septage management, water-body rejuvenation, and municipal development, with the government's AMRUT 2.0 project pipeline continuing to expand. Government policy support has also continued to encourage private-sector participation in infrastructure development, creating additional opportunities for EPC companies across transportation, energy, and urban infrastructure.

Battery Energy Storage Systems (BESS)

India's Battery Energy Storage System (BESS) sector has emerged as a critical enabler of the country's clean energy transition. As of 31 March 2026,²³ India's installed renewable energy capacity stood at 274.68 GW, with BESS increasingly supporting grid stability and renewable integration. India's BESS deployment is also gaining momentum, with 9,653.94 MW/26,729.32 MWh of BESS capacity under construction and 19,797.65 MW/61,013.40 MWh under tendering stage, highlighting the rapidly expanding project pipeline.

These capacities are expected to scale steadily, with the National Electricity Plan projecting 47.24 GW/236,220 MWh of BESS capacity by 2031–32. The government has also introduced measures such as the Viability Gap Funding (VGF) scheme to support BESS deployment, with the scheme capacity increased to 13,200 MWh within an approved budgetary allocation of INR 3,760 crore. This growth will be vital for managing renewable intermittency, enabling flexible power dispatch, and strengthening grid resilience, highlighting India's strategic commitment to energy storage.

Overview of BESS: key applications

Battery Energy Storage Systems (BESS) are advanced technologies that store electrical energy in rechargeable batteries for use at a later time. In simple terms, BESS allows electricity to be saved when generation is higher than demand and released back into the grid or consumed when demand is higher than supply. This capability makes BESS a vital component of modern power systems, especially as renewable energy sources like solar and wind become more widespread.

Unlike traditional energy storage methods such as pumped hydro, which are location-specific and capital intensive, BESS offers modularity, flexibility, and rapid response. They can be installed at various scales, from large grid-connected systems that stabilize power supply, to commercial facilities that reduce peak demand charges, to residential homes supporting rooftop solar.

A typical BESS consists of four main components:

- **Battery cells and packs** – where the energy is stored (commonly using lithium-ion, lead-acid, or emerging chemistries like sodium-ion and flow batteries).
- **Battery Management System (BMS)** – which ensures safe operation, monitors performance, and protects against overcharging or overheating.
- **Power Conversion System (PCS)** – converts stored DC electricity into AC for grid or household use and vice versa.

²³ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2220087&lang=2®=48>

- **Control and Monitoring System** – integrates the BESS into the grid, enabling automated energy dispatch, demand response, and optimization.

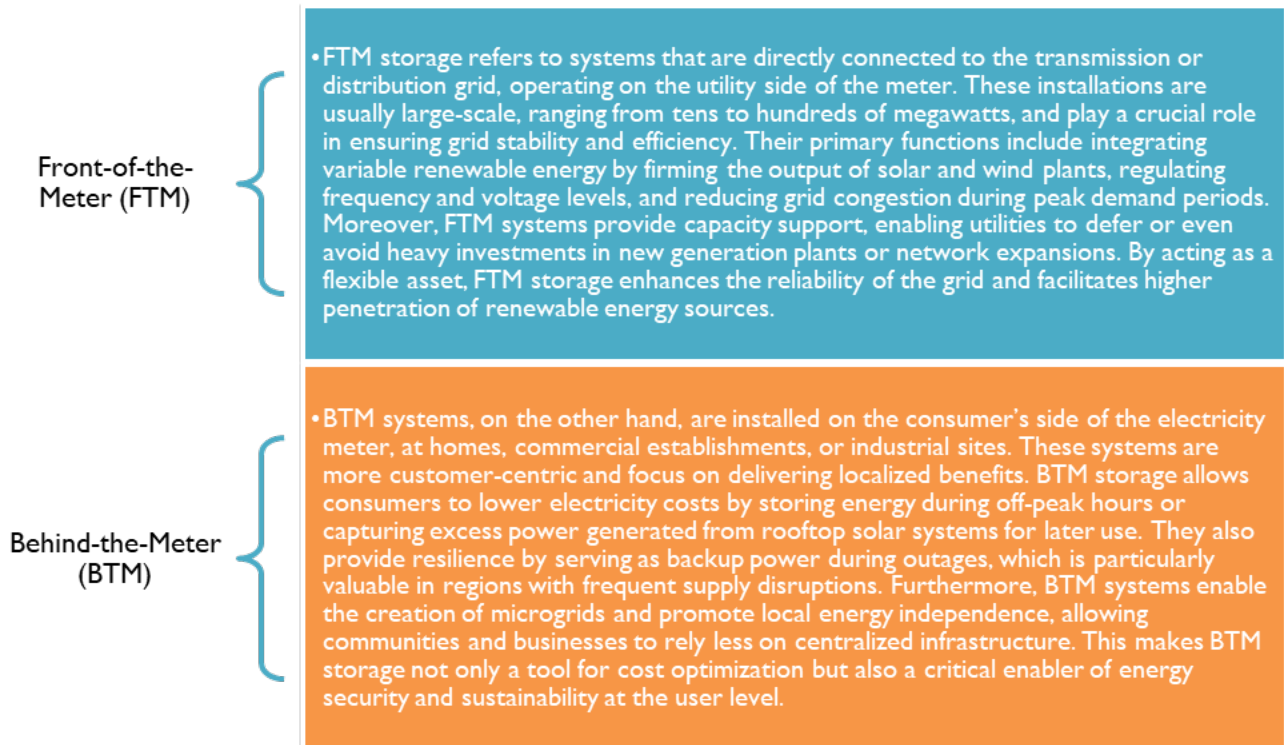
BESS is used for multiple applications, including renewable energy integration, peak load shaving, frequency regulation, backup power, and supporting electric vehicle charging infrastructure. With declining battery costs, technological innovation, and strong policy support, BESS is rapidly becoming a cornerstone of the global clean energy transition.

Type of battery chemistry

Battery Type	Key Advantages	Limitations	Cycle Life	Efficiency	Applications
Lithium-ion (LFP, NMC)	High energy density, long life, fast response, scalable	Costly, safety risks if poorly managed	5,000-10,000	90-95%	Utility-scale, frequency regulation, EVs, homes
Lead-Acid	Low cost, mature, recyclable	Short life, bulky, low efficiency	500-1,500	70-80%	Backup power, telecom, small off-grid
Flow Batteries	Long-duration, safe, scalable (tank size)	Expensive, bulky, lower density	10,000+	70-85%	Grid-scale, long-duration renewable storage
Sodium-Sulphur (NaS)	High energy density, proven for grid	Needs high temp, safety concerns	4,500-7,000	75-90%	Large grid storage, peak shaving
Emerging (Metal-air, Solid-state)	Very high potential density, safer (solid-state)	Still R&D, limited use	-	~95% (expected)	Future EVs, advanced grid storage

Type of BESS

Battery Energy Storage Systems (BESS) are typically classified into two categories depending on where they are installed in relation to the power grid: **Front-of-the-Meter (FTM)** and **Behind-the-Meter (BTM)**. Both serve distinct purposes and together form the backbone of a modern, flexible energy ecosystem.



Together, FTM and BTM deployments represent complementary layers of the energy storage ecosystem, FTM serving the broader grid-level needs and BTM empowering end-users, both essential for a cleaner, more reliable, and future-ready power system.

Key Applications: Battery Energy Storage Systems (BESS) have emerged as a versatile solution serving multiple stakeholders, including utilities, grid operators, industries, and end-consumers. Their applications span across enhancing renewable integration, strengthening grid reliability, improving cost efficiency, and enabling new energy services.

Renewable Energy Integration: One of the most prominent applications of BESS is enabling higher adoption of renewable energy sources like solar and wind. Since these sources are variable and weather-dependent, BESS helps by storing excess electricity during peak generation (e.g., midday solar output) and discharging it when renewable output drops (e.g., evening hours). This not only balances intermittency but also allows for delivering round-the-clock (RTC) renewable power. By bridging the mismatch between renewable generation and demand patterns, BESS supports cleaner, more reliable electricity supply.

Grid Reliability and Ancillary Services: Modern grids demand flexibility, and BESS excels in providing real-time support services. With fast response times, BESS can regulate frequency, stabilize voltage fluctuations, provide spinning reserves, and even supply black-start capability (restarting a grid after a

blackout). By acting as a flexible balancing tool, storage improves grid resilience and ensures smooth operation even under high renewable penetration or sudden demand spikes.

Peak Load Management & Energy Arbitrage: Electricity demand often peaks in the evening or during seasonal extremes, creating stress on grids and requiring expensive peaker plants. BESS helps shave these peaks by discharging during high-demand periods, reducing reliance on costly and polluting backup generation. Additionally, storage enables energy arbitrage, where electricity is bought or stored during off-peak hours (low tariff) and discharged during peak demand (high tariff), optimizing costs for both utilities and consumers.

Backup Power & Resilience: For critical infrastructure such as hospitals, data centers, telecom networks, airports, and defense establishments, uninterrupted power supply is non-negotiable. BESS provides reliable backup power, ensuring continuity during outages or grid disruptions. Its ability to deliver instant response makes it a safer and cleaner alternative to traditional diesel generators, while also reducing dependency on fossil fuels.

Electrification of Transport: With the rapid growth of electric vehicles (EVs), BESS plays a crucial role in supporting charging infrastructure. By stabilizing demand surges at EV fast-charging stations, storage reduces stress on the local grid. Looking ahead, integration with Vehicle-to-Grid (V2G) systems could allow EVs themselves to act as distributed storage assets, further expanding grid flexibility and enhancing energy efficiency.

Decentralized Energy Systems and Microgrids: In remote areas, rural communities, and islanded grids, BESS is central to building decentralized power systems. When combined with renewable sources, storage allows the creation of self-sufficient microgrids that provide stable, clean, and continuous electricity without relying on fossil fuel-based generation. This is especially transformative for rural electrification in developing countries, where access to grid infrastructure is limited.

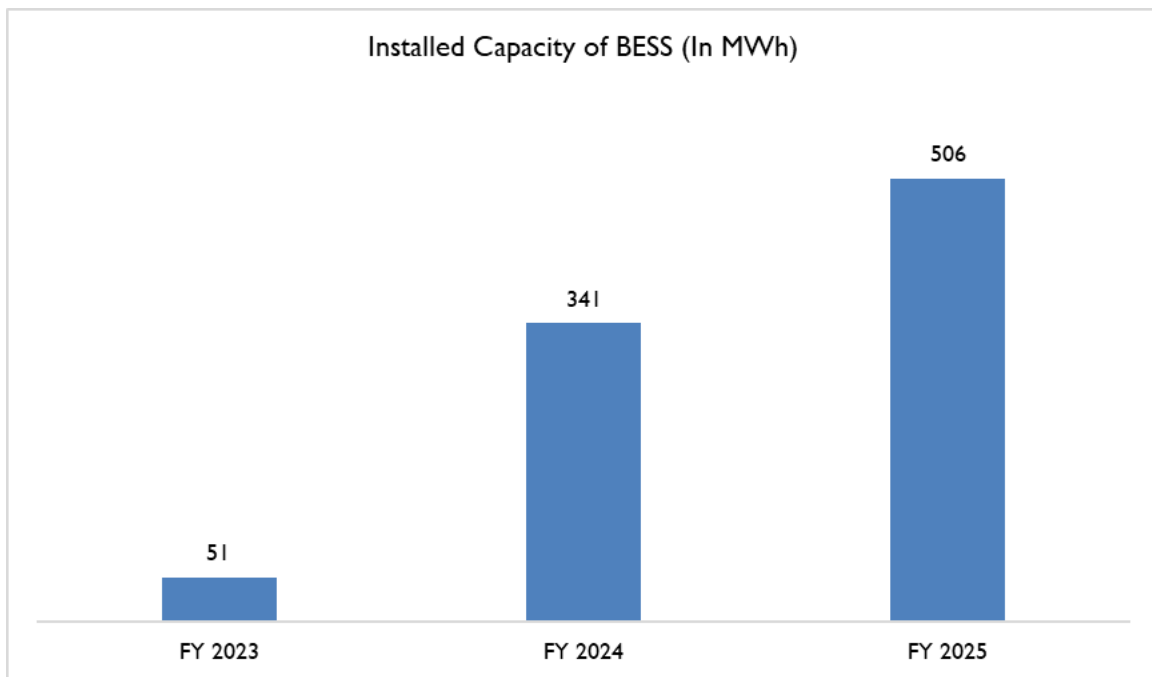
Current scenario of BESS

India's Battery Energy Storage System (BESS) sector is experiencing a marked expansion, driven primarily by the growing integration of renewable energy sources and the need for grid stability. By FY 2026, India's BESS deployment pipeline had expanded substantially, supported by increasing procurement of standalone and renewable-linked storage projects. The Central Electricity Authority's planning framework estimates that India will require 47.24 GW/236.22 GWh of Battery Energy Storage Systems by 2031–32, highlighting the significant scale-up expected in the sector. The government is also promoting BESS deployment through measures including viability-gap funding and regulatory support for integrating energy storage with renewable generation.²⁴

This substantial rise demonstrates a strong compound annual growth trend in installations, highlighting the country's accelerating adoption of energy storage solutions to address renewable intermittency and optimize

²⁴ https://cea.nic.in/wp-content/uploads/notification/2023/06/NEP_2022_32_FINAL_GAZETTE_English.pdf

power dispatch. The current landscape includes a mix of urban, rural, and remote installations, ranging from utility-scale storage paired with solar PV projects to standalone BESS deployments.



Source: Government of India, Ministry of Power, Industry Sources

Growth Scenario of BESS

India's Battery Energy Storage System (BESS) sector has experienced a rapid transformation over the past few years. From a modest installed capacity of 51 MWh in FY 2023, the country's BESS capacity rose to 341 MWh in FY 2024 and further increased to approximately 506 MWh (205 MW) by FY 2025. India's cumulative installed Battery Energy Storage System (BESS) capacity reached approximately 5.9 GWh (5,900 MWh) as of March 2026²⁵

Looking ahead, India's Battery Energy Storage System (BESS) sector is poised for significant growth, driven by rising renewable energy penetration and the increasing need for grid stability. According to the Central Electricity Authority (CEA), approximately 3,300 MW of BESS capacity, representing around 8,500 MWh of storage, is currently in the pipeline and expected to be commissioned over the next two years. An additional 12,500 MW, equivalent to approximately 42,000 MWh, is under tender.

Over the longer term, the CEA's National Electricity Plan projects India's BESS requirement to increase from 8.68 GW with 34 GWh of storage capacity in FY 2026-27 to 47.24 GW with 236 GWh by FY 2031-32. Achieving this capacity is expected to require an estimated investment of ₹3.49 lakh crore. This expansion underscores India's strategic commitment to energy storage, which will be essential for managing the

²⁵ <https://www.ibef.org/news/india-adds-4-6-gwh-of-energy-storage-capacity-in-first-quarter-of-2026-report>

variability of renewable energy, enabling flexible power dispatch, strengthening grid resilience, and ensuring a reliable electricity supply as the country advances its clean energy transition.

Analysis of key factors driving BESS demand in India

The demand for Battery Energy Storage Systems (BESS) in India is being shaped by a convergence of policy ambitions, market economics, and energy system requirements. Several structural drivers are accelerating adoption, making storage central to India's clean energy transition.

Renewable Energy Expansion and Integration Needs

India's renewable energy targets form the foundation for BESS growth. The government has committed to installing **500 GW of non-fossil fuel capacity by 2030**, out of which over 300 GW is expected to come from solar and wind. These sources are inherently variable, generating power only when sunlight or wind is available. To ensure round-the-clock (RTC) renewable supply, storage becomes indispensable. The Central Electricity Authority (CEA) estimates that the grid will require **32 GW/160 GWh of battery storage capacity by 2030** for balancing, peak shifting, and frequency control. Without storage, renewable curtailment would rise, undermining India's climate and energy security goals.

Government Incentives and Viability Gap Funding (VGF)

To overcome the high upfront costs of BESS, the government has introduced direct financial support. The Union Cabinet recently approved a plan to develop **13.2 GWh of BESS projects by June 2027** under a Viability Gap Funding (VGF) mechanism, covering up to 40% of the project cost. This move is critical to make storage commercially attractive for utilities, developers, and distribution companies. As storage costs fall, such support will taper off, but in the near term, VGF is expected to catalyse rapid adoption and create economies of scale.

Declining Battery Costs and Expanding Auctions

The falling cost trajectory of battery energy storage is another important driver. As of FY 2026, the government is supporting approximately 43 GWh of BESS through two VGF schemes, including 13,220 MWh under the initial scheme and 30 GWh under the scheme launched in June 2025. With solar/wind-plus-storage and firm and dispatchable renewable-energy projects increasingly being incorporated into procurement tenders, BESS is becoming economically viable not only for grid balancing but also for peak shifting, renewable integration, and firm power delivery.

Supportive Policy and Regulatory Environment

India's policy landscape is becoming increasingly favourable for storage deployment. The Ministry of Power has extended a **waiver of inter-state transmission system (ISTS) charges** for renewable energy projects with storage until **June 2028**, which significantly improves project economics. Additionally, renewable energy tenders now often mandate the inclusion of storage components, leading to a sharp

increase in hybrid projects — from just **12% of RE tenders in 2021** to nearly **49% in 2024**. Regulatory clarity on ancillary services markets is also enabling BESS to participate in frequency regulation and voltage support, creating new revenue streams.

Grid Stability, Peak Load Management, and Resilience

Finally, the rising electricity demand and evolving grid dynamics make storage essential for stability. CEA's National Electricity Plan projects that by **2031-32, India will need 236.2 GWh of BESS and 175.2 GWh of pumped hydro storage** to manage peak loads and frequency fluctuations. BESS also plays a crucial role in enhancing resilience, by providing backup power to critical facilities such as hospitals, defence installations, and data centers, and by supporting localized microgrids in rural and remote areas. As India electrifies its economy, including transport and industry, the demand for flexible and resilient storage solutions will only intensify.

Growth of energy storage system (installed capacity) in India

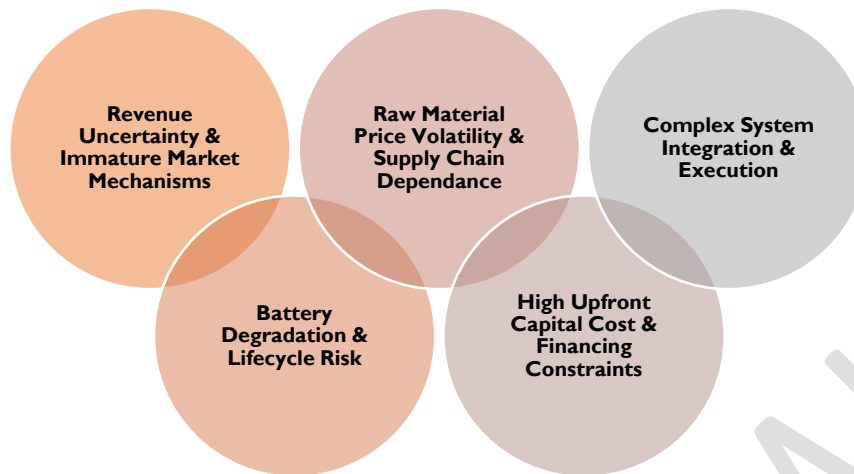
India's push toward clean energy has placed Energy Storage Systems (ESS) at the core of its power sector transformation. With the target of achieving **50% cumulative installed capacity from non-fossil fuels by 2030** and reducing emission intensity of GDP by **45% (from 2005 levels)**, storage will play a pivotal role in managing the variability of solar and wind energy. ESS ensures grid stability, enables peak shifting, provides ancillary services, and facilitates larger renewable integration, all of which are critical for India's energy transition.

The installed capacity requirement for ESS is projected to grow **exponentially** in the coming decades, driven by rising renewable penetration. According to the **National Electricity Plan (NEP) 2023 of the Central Electricity Authority (CEA)**:

- **By 2026-27, India will need 82.37 GWh of energy storage capacity, comprising 47.65 GWh from Pumped Storage Projects (PSP) and 34.72 GWh from Battery Energy Storage Systems (BESS).**
- **By 2031-32, the requirement is expected to surge nearly fivefold to 411.4 GWh, with 175.18 GWh from PSP and 236.22 GWh from BESS.**
- **By 2047, aligned with India's net zero target for 2070, the projected storage requirement reaches a massive 2,380 GWh, including 540 GWh from PSP and 1,840 GWh from BESS.**

To ensure this growth, the government has also introduced a **long-term Energy Storage Obligation (ESO) trajectory**, mandating distribution companies and other obligated entities to procure increasing levels of stored renewable energy. The ESO begins at **1% of total consumption in FY 2023-24** and will rise gradually to **4% by FY 2029-30**, with an annual increase of 0.5%. Importantly, at least **85% of stored energy must come from renewable sources** to qualify, ensuring ESS deployment is aligned with India's decarbonization goals.

Key Threats & Challenges Impacting BESS



- **Revenue Uncertainty & Immature Market Mechanisms**

One of the most critical risks in BESS is the lack of fully developed and stable revenue models across markets. While storage systems can theoretically generate income through multiple streams such as energy arbitrage, ancillary services, and capacity payments, many markets do not yet have mature frameworks to support seamless revenue stacking. This creates uncertainty in cash flow visibility and makes it difficult for developers and investors to accurately assess long-term project returns, impacting financing and investment decisions.

- **Battery Degradation & Lifecycle Risk**

Battery performance degrades over time due to charge-discharge cycles, temperature conditions, and usage patterns, directly affecting system efficiency and output. If degradation rates or augmentation requirements are miscalculated during project planning or bidding, it can lead to higher-than-expected replacement costs and failure to meet contractual performance guarantees. This poses a significant risk of margin erosion over the lifecycle of the project, especially in long-term contracts such as firm or dispatchable power agreements.

- **Raw Material Price Volatility & Supply Chain Dependence**

BESS relies heavily on critical minerals such as lithium, cobalt, and nickel, which are subject to global supply-demand imbalances and geopolitical dynamics. Price volatility in these materials can significantly impact battery costs, leading to fluctuations in overall project capex. Additionally, concentrated supply chains and dependence on a few geographies increase the risk of disruptions, delays, and cost escalations, affecting both project timelines and financial viability.

- **High Upfront Capital Cost & Financing Constraints**

BESS projects require substantial upfront investment, with battery systems accounting for a major share of total project costs. Despite declining prices, storage remains capital-intensive compared to conventional power assets. At the same time, evolving business models and uncertain revenue streams make lenders

cautious, limiting access to affordable financing. This creates barriers to large-scale deployment, particularly in emerging markets where financial ecosystems for storage are still developing.

- **Complex System Integration & Execution**

Deploying BESS involves integrating multiple components, including battery packs, inverters, energy management systems (EMS), and thermal management solutions, with existing grid infrastructure. This multi-layered integration increases technical complexity and execution risk, requiring specialized expertise and robust project management. Any gaps in design, coordination, or system compatibility can lead to delays, performance issues, or increased operational costs, making execution a key challenge for developers and EPC players.

Key Threats & Challenges Impacting Renewable Energy PPA

Contracting and Off-take Risks

- **PPA/PSA Signing Delays:** Winning a tender does not guarantee an executed contract. Prolonged delays in signing Power Purchase Agreements and Power Sale Agreements can leave awarded capacity stranded, holding up financial closure and delaying project commissioning.

Counterparty and Payment Risks

- **Discom Financial Weakness:** Almost every project ultimately sells to a state distribution utility whose financial health underpins the entire PPA. Chronic losses and high debt at these utilities raise the risk of delayed or defaulted payments.
- **Payment Delays and Receivable Stress:** Off-takers frequently pay generators well beyond contracted terms, creating liquidity strain that can affect a developer's ability to service debt and fund operations.

Grid, Curtailment and Evacuation Risks

- **Transmission Infrastructure Lag:** Evacuation infrastructure often fails to keep pace with generation capacity, leaving commissioned assets unable to dispatch power and eroding project returns.
- **Connectivity Constraints:** Projects operating under temporary or provisional connectivity face higher curtailment and uncertainty around long-term evacuation, weakening bankability.

Execution and Project Delivery Risks

- **Commissioning Delays:** Land acquisition disputes, right-of-way issues, forest clearances and equipment supply constraints can delay project completion, triggering penalties or loss of scarce grid connectivity.
- **Loss of Grid Access and Guarantees:** Regulators have tightened the consequences of missed deadlines, and developers that fail to meet extended timelines risk forfeiting their connectivity rights and encashment of bank guarantees.

- **Cost Overruns:** Extended timelines and additional charges levied to retain connectivity increase project costs and pressure returns.

Regulatory and Contract-Sanctity Risks

- **PPA Renegotiation and Repudiation:** The value of a PPA rests on a fixed tariff honoured over its full term. Attempts by counterparties to renegotiate, revise or repudiate signed agreements can disrupt cash flows and trigger prolonged litigation.
- **Evolving Procurement Norms:** Shifts in procurement design — such as mandatory co-located storage and firm, round-the-clock supply obligations — change project economics and may raise compliance costs.
- **Policy and Regulatory Uncertainty:** Changes in tariff regulations, connectivity rules and central or state-level policy can alter the commercial assumptions underlying long-term PPAs.

Technology and Cost-Structure Risks

- **Rising Storage and Integration Requirements:** As renewable penetration grows, energy storage is increasingly a baseline requirement rather than an add-on, raising capital intensity for developers.
- **Firming and Dispatchability Obligations:** Meeting firm, dispatchable and peak-supply commitments requires significant additional investment in batteries and hybrid configurations, which may strain project viability if not adequately priced.
- **Technology Obsolescence:** Rapid evolution in module, turbine and storage technology can pressure the competitiveness of older assets and the tariffs at which they were contracted.

Armee Infotech²⁶

Profile

Founded in 2003, Armee Infotech is an IT infrastructure and IT managed services company headquartered in Ahmedabad. The Company has ventured into the retail sales space through Experience Zones engaged in the sale of IT, consumer electronics, and gaming and merchandise products, and have recently commenced operations in the renewable energy sector, including engineering, procurement and construction (“EPC”) of renewable energy power projects and development of renewable energy power projects under power purchase agreements (“PPAs”) and renewable energy Battery Enabled Storage System (“BESS”).

The company operates across Renewable energy space:

- **Renewable Energy EPC:** Provides end-to-end engineering, procurement, and construction services, including project assessment, design, equipment procurement, construction, commissioning, and handover of solar power plants for public- and private-sector clients.
- **Renewable Energy PPA:** developing, owning, operating, and maintaining solar power assets under long-term arrangements with clients. The company enters into agreements for the supply of electricity generated by these solar assets at predetermined tariffs, for a specified duration. Responsibility for operation and maintenance of the solar plant rests with the company, in accordance with contractual terms.
- **Renewable Energy BESS:** Company enters into long term contracts for supply of energy from its battery storage system at a pre-determined rate for a specified duration. Under this arrangement, we are also responsible for operation and maintenance of BESS plants.

Armee provides their services to both Government/public sector undertakings (PSUs) and private sector clients which operate across a wide variety of industries. Bulk of the company’s revenue is currently derived from services provided to Government/ PSU projects.

Armee Infotech: Snapshot

Establishment Year: 2003

20+ years of operational experiences

Headquartered in Ahmedabad

²⁶ As per the information provided and stated by Armee Infotech.

USP: End-to-End Project Management and Implementation
Key Services
IT Infrastructure
IT Managed Services
Renewable Energy
- Renewable Energy PPA - Renewable Energy BESS - Renewable Energy EPC

The Company offer a comprehensive suite of services categorized into: IT Infrastructure Solutions, IT Managed Services and Renewable Energy Solar EPC

IT Infrastructure Solutions

- Procurement and Implementation: They supply IT hardware and software, including computers, servers, interactive panels, and their peripherals. Their team expertly installs and integrates these solutions to meet specific requirements of the clients.
- Maintenance: They also provide ongoing maintenance for the IT infrastructure they install, ensuring its optimal performance throughout the contractually specified period.
- Seamless User Experience: To ensure seamless transition for their clients, they offer functional training on the newly implemented IT infrastructure.
- Project Experience: They have a proven track record of success in diverse projects. This includes setting up ICT labs, smart classrooms, digital infrastructure for gram panchayats, mobile workforce management solutions, and digitalization of primary agriculture credit societies.

Their commitment to IT Infrastructure Solutions has fueled significant growth. Revenue from IT Infrastructure Solutions stood at INR 93,500.81 lakhs in FY 2024, accounting for 91.62% of total revenue from operations of INR 1,02,057.47 lakhs. This further increased to INR 1,22,431.53 lakhs in FY 2025, contributing 93.22% of the total revenue from operations of INR 1,31,331.37 lakhs. In FY2026, revenue from the IT infrastructure segment stood at INR 1,19,848.88 lakh, representing 85.81% of total revenue from operations of approximately INR 1,39,662.61 lakh.

IT Managed Services

Building upon the foundation laid by their IT Infrastructure Solutions, their IT Managed Services encompass:

- **Technical Staffing:** They provide skilled IT personnel to support clients ongoing needs.
- **Skill Development:** They also provide training to ensure that clients team possesses the latest expertise.
- **Annual Maintenance Services:** They offer comprehensive annual maintenance plans to keep the clients IT infrastructure running smoothly.
- **Operational Support:** Their team delivers exceptional on-site and off-site operational support and maintenance, as outlined in each service level agreement. Payments are structured for convenience, with pre-defined billing intervals or according to contractual terms.

The IT Managed Services segment contributed INR 8,556.66 lakhs (8.38% of total revenue) in FY2024, rising to INR 8,899.84 lakhs (6.78%) in FY2025, before moderating to INR 7,344 lakhs (~5.2%) in FY2026. Over FY2024–FY2026, segment revenue registered a marginal CAGR of ~-7.4%, as the Company's revenue mix shifted toward IT Infrastructure and the newly added Renewables vertical.

Renewable Energy EPC: In FY2026, revenue from the Renewable Energy EPC segment stood at INR 12,469.60 lakh, accounting for 8.93% of the company's total revenue from operations.

Commitment to Quality and Expertise

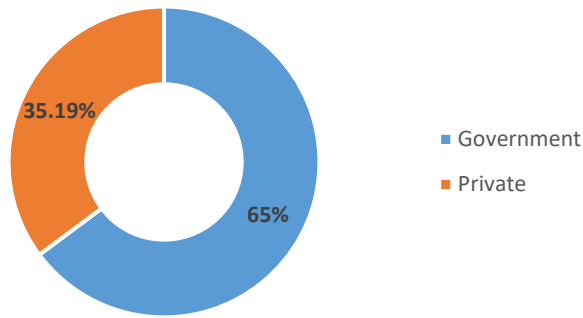
They are dedicated to maintaining the highest quality standards in everything they do. This commitment is reflected in their achievement of several prestigious certifications, including ISO/IEC 20000-1:2018 (Information Technology Services Management), ISO 14001:2015 (Environmental Management System), ISO/IEC 27001:2022 (Information Security Management System), and CMMI- DEV V.2.0, Maturity Level 3.

For certain activities, such as site preparation, electrification, and IT infrastructure commissioning, they leverage the expertise of their trusted third-party vendors, including their wholly-owned subsidiary company, Armeet Technology Services Private Limited.

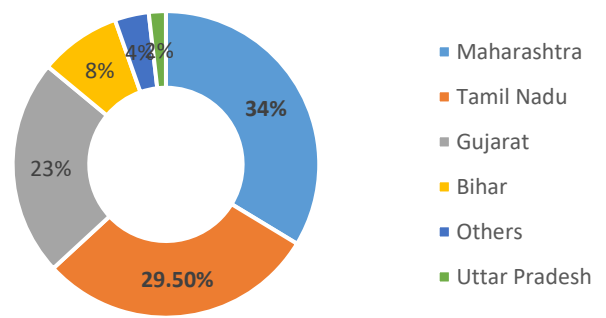
Strong Government Focus: Armeet infotech boasts a remarkable 65% of its clientele within the government sector, showcasing its established position and expertise in catering to public sector IT infrastructure needs. This deep understanding and successful track record make them a trusted partner for government agencies.

Regional Reach: The company has a diversified presence across India, with its client base concentrated primarily in Maharashtra at 34.0%, followed by Tamil Nadu at 29.5% and Gujarat at 23.0% in FY2026. Bihar accounted for 8.0% of clients, while Uttar Pradesh and other regions contributed 2.0% and 4.0%, respectively. The distribution reflects a strong presence in western and southern India, with opportunities to expand further across eastern, northern, and other regions.

Percentage Distribution of Clients Catered on the basis of Government Vs Private Sector (FY 2026)



Percentage Distribution of Clients Catered of region (FY 2026)



Key Clients Catered across different Industries



In Renewable energy space, the Company has won projects in solar EPC domain as well as for developing solar parks via PPA mode.

- Notable clients in Renewable Energy EPC Project space: NACOF OORJA Private Limited, PratapTechnocrats Private Limited, Bondada Engineering Limited
- Notable projects in Renewable Energy PPA domain: PPA from Maharashtra State Electricity Distribution Company Limited (MSIEDCL) and Uttar Pradesh Power Corporation Limited (UPPCLP)

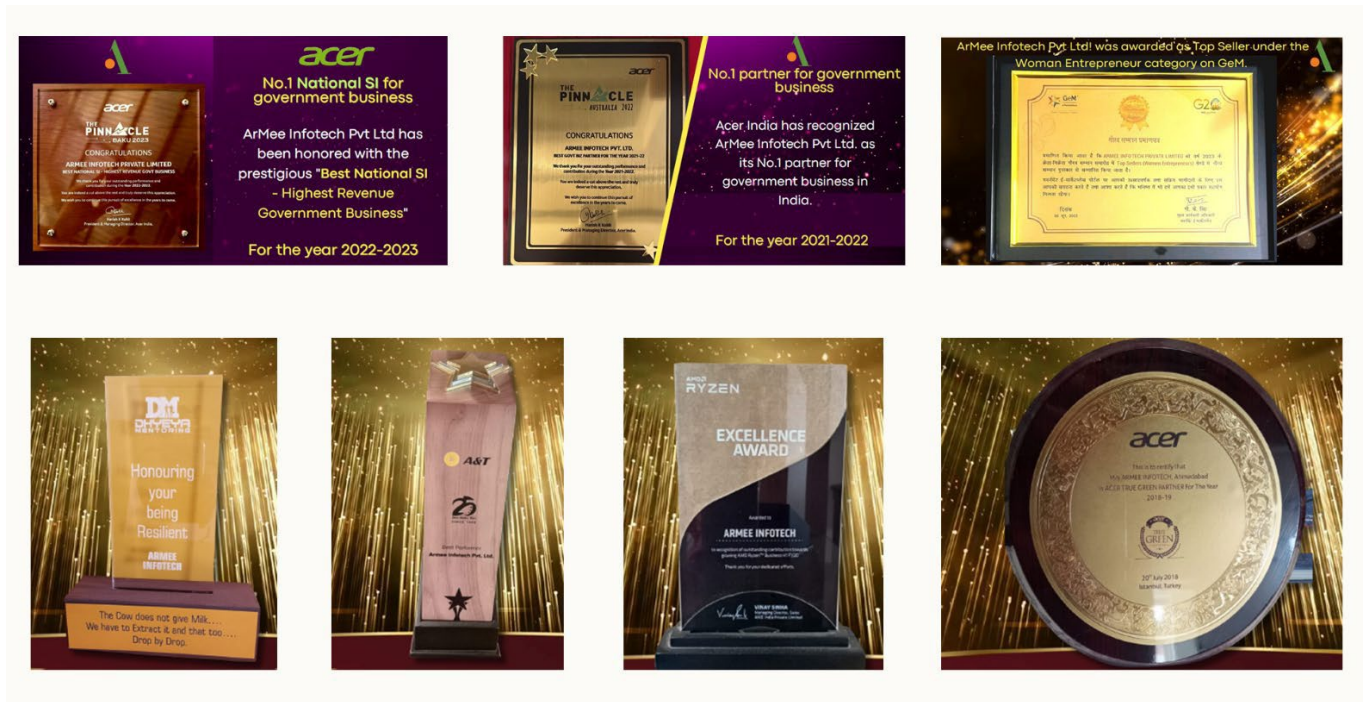


Numbers of Ongoing Projects as of June 2026

Service categories	No. of projects as of June 30, 2026
IT Infrastructure	65
IT managed services	21
Renewable energy - EPC	10
Renewable energy - PPA	1
Renewable Energy BESS	2
Total	99

Some of the Awards and Recognition received by ArMee Infotech

- In the Blindwink India Business Award 2025, the Company was awarded as in the category “Most Innovative & Successful IT Infrastructure Company in Gujarat”



Financial Performance

In FY2026, the Company reported a Total Income of ₹1,410.1 Cr with a Profit After Tax (PAT) of ₹45.5 Cr. Over the period FY2022 to FY2026, the Company's revenue demonstrated remarkable expansion, registering a strong CAGR of around 80%, reflecting consistent business scale-up despite margin pressures. Profitability tracked a similar uptrend, with PAT growing more than tenfold over the period, underscoring improved operational efficiency and a stronger earnings base.

Financial Summary (All figures in INR Lakhs)				
	FY 2023	FY 2024	FY 2025	FY 2026
Revenue	51,960.00	1,02,399.34	1,31,578.49	141,009.33
EBDITA	3,398.38	7,499.45	6,111.38	7,563.77
PAT	1,957.60	5,013.04	4,166.64	4,546.65

Source: Armee Infotech Financial Reports

Rural India

Traditionally, India has been a nation dominated by rural life. Based sixth economic census, nearly 7 out of 10 people (68.8%) and an even higher proportion of the workforce (72.4%) lived in rural areas. However, this is changing rapidly. India is experiencing a steady shift towards urbanization. Between 2001 and 2011, cities grew at a much faster pace (31.8%) compared to rural areas (12.18%). This trend is driven by two factors: people moving from villages to cities, and some existing rural settlements being reclassified as urban.

While India is expected to remain primarily rural until 2050, projections suggest a tipping point after that. By mid-century, the urban population is likely to surpass the rural population for the first time in India's history.

There's a concern that people are migrating to cities from rural areas, often driven by a desperate search for jobs, are creating major problems. These rapid influxes strain city resources and force many low-wage migrants to live in poor conditions. To address this challenge and improve the lives of most Indians, there is a need to focus on making rural areas more economically attractive. This means creating jobs in villages and towns, boosting the rural economy & infrastructure, and narrowing the significant gap between rural and urban incomes. Achieving this requires significantly faster economic growth in rural areas compared to cities. Traditionally, agriculture has been the backbone of rural India. However, for long-term economic success, a shift is needed. By fostering a more productive and diverse rural economy, with a focus on non-agricultural sectors, India can unlock its full economic potential.

In the 1970s, rural areas provided the bulk of the workforce (84.1%) and generated a significant share of national output (62.4%). However, this contribution dropped sharply by 1999-00. Interestingly, the decline in rural jobs wasn't as steep as the decline in output. This suggests economic growth was happening in urban areas, particularly in capital-intensive industries that didn't create many jobs. As a result, the gap between rural share of output and employment widened. The rural economy picked up pace after 1999-00, matching the growth rate of urban areas. This led to a stabilization of the rural share of national output at around 48%. However, despite this growth, the rural share of output dipped slightly between 2004-05 and 2011-12. While the rural share of output fluctuated, the share of employment in rural areas declined steadily from 76.1% in 1999-00 to 70.9% in 2011-12. This faster decline in rural jobs compared to output share narrowed the gap between rural output and employment to 24% by 2011-12.

Share of rural areas in total NDP and workforce ⁷		
Year	Economy(%)	Workforce(%)
1970-71	62.4	84.1
1980-81	58.9	80.8
1993-94	54.3	77.8

1999-00	48.1	76.1
2004-05	48.1	74.6
2011-12	46.9	70.9

⁷ The share of Net domestic product and workforce contributed by rural regions to overall India NDP and workforce.

Source: The data on rural and urban net domestic product (NDP) is available for the years 1970-71, 1980-81, 1993-94, 1999-00, 2004-05 and 2011-12 at current prices from Central Statistical Office. Workforce information in the country was extracted from the unit-level data of quinquennial employment and unemployment surveys conducted by National Sample Survey Office (NSS-EUS).

Surprisingly, rural areas contribute a significant portion of non-agricultural output (around a third) and nearly half of all non-farm jobs (48.7%). The most dramatic shift is in manufacturing. Between 1970 and 2012, the rural share of manufacturing output doubled, exceeding urban production. However, this growth didn't translate to more jobs. In fact, the rural share of manufacturing jobs declined. This suggests a shift towards more capital-intensive manufacturing in rural areas, creating fewer employment opportunities. The construction sector presents a contrasting picture. The rural share of construction output increased moderately, but the employment share rose significantly (10%). This indicates faster job growth in construction compared to manufacturing. When it comes to services, rural areas seem to be losing ground. After 2004, their share of service sector output dropped significantly, reaching only 25.9% by 2012. This suggests a growing gap between rural and urban areas in service-based professions.

Government Initiatives for improving IT Infrastructure in Rural India

In recent years, the Government of India (GOI) has recognized the crucial role of Information Technology (IT) infrastructure in bridging the digital divide and fostering socio-economic development in rural India.

BharatNet Project

- Launched in 2017, this ambitious project aims to connect all Gram Panchayats (village councils) with high-speed optical fiber networks. As of Feb 2026, over 2.14 lakh Gram Panchayats have been connected.

Pradhan Mantri Gramin Digital Literacy Mission (PMGDL M)

- Launched in 2016, this scheme aims to impart basic digital literacy training to rural citizens. Over 1.5 crore individuals have been trained under the program by December 2023.

Increased Spending on IT Infrastructure:

- **Budgetary Allocation:** The government has significantly increased its budgetary allocation for the Department of Telecommunications (DoT) in recent years. The Union Budget 2026-27 allocated ₹73,990.94 crore to the Department of Telecommunications (DoT).
- **Digital India Flagship Mission:** Launched in 2015, this umbrella program has allocated substantial resources for improving rural IT infrastructure. The total expenditure under Digital India crossed ₹6 lakh crore (US\$ 80 billion) by March 2023

Initiatives like Pradhan Mantri Schools for Rising India (PM SHRI) and Saakshar Bharat Mission are not just about education; they're building a future workforce equipped for the digital age. As digital literacy rises and people become comfortable with technology, the demand for internet-based services like e-commerce, online education, and telemedicine will soar. This creates a fertile ground for managed service providers to offer solutions like cloud storage, data analytics, and cybersecurity.

The Indian government's multi-pronged approach is laying a strong foundation for a digital revolution in rural India. Initiatives like BharatNet, PMGDL Mission, are rapidly expanding IT infrastructure, while PM SHRI and Saakshar Bharat Mission are fostering a more tech-savvy rural population. This confluence of factors will create a surge in demand for IT infrastructure services. As internet penetration deepens and digital literacy rises, a vast new market will emerge for these services.

Private Sector contribution in enhancing the IT infrastructure in rural India

While the government lays the groundwork for IT infrastructure in rural India, the private sector plays a crucial role in driving its growth and creating opportunities for IT service providers. Many IT and IT-enabled services (ITES) companies are exploring expansion to Tier 2 and 3 cities. This is driven by factors like lower operational costs, readily available talent, and government incentives. Companies like Infosys, TCS, and Wipro have established campuses in Tier 2 cities like Mysore, Indore, and Bhubaneswar. Additionally, smaller IT companies are increasingly setting up operations in these locations. This expansion creates a demand for improved internet connectivity, data centers, and network security solutions. Local IT infrastructure and managed service providers can cater to these needs.

Several BPOs are setting up operations in rural areas, attracted by a large talent pool and government subsidies. Companies like Aegis and WNS have rural BPO centers. The government is encouraging PPPs for developing IT infrastructure in rural areas. Private companies can invest in building and managing fiber optic networks, data centers, and other critical infrastructure. Private companies are partnering with government programs like PMGDL M to provide digital literacy training in rural communities by providing the required IT infrastructure and managed services. This creates a more tech-savvy population, increasing demand for IT services.

The private sector's growing focus on Tier 2 & 3 cities, the rise of rural BPOs, and collaboration with government initiatives are driving the demand for IT infrastructure and managed services in rural India. This

presents a significant opportunity for service providers to develop innovative solutions, cater to a new market segment, and contribute to bridging the digital divide.

Payment Devices

India is witnessing a phenomenal rise in digital payments, rapidly transforming the financial landscape. This surge is driven by a potent combination of government initiatives, infrastructure development, and a growing ecosystem of players.

Government Initiatives:

Jan Dhan Yojana

- Launched in 2014, this scheme provides basic bank accounts to the unbanked population. As of February 2024, over 46 crore (460 million) Jan Dhan accounts have been opened.

Digital India Mission

- Launched in 2015, this flagship program aims to create a "cashless society" by promoting digital payment adoption. The initiative focuses on infrastructure development, awareness campaigns, and financial inclusion

Unified Payments Interface (UPI)

- Developed by the National Payments Corporation of India (NPCI), UPI is a revolutionary platform enabling instant interbank money transfers through mobile apps. Its simplicity and ubiquity have been key drivers of digital payments adoption.

BHIM App

- Launched by the government, BHIM is a user-friendly mobile app that allows easy access to UPI services. This has helped bridge the digital divide and empower people with basic feature phones to participate in the digital payments ecosystem.

Aadhaar Enabled Payment System (AEPS)

- This system leverages Aadhaar, a unique biometric identification system, for cashless transactions at micro ATMs in rural areas. This has improved financial inclusion for the unbanked and underbanked population.

Infrastructure Development:

- Jan Dhan-Aadhaar-Mobile (JAM) Trinity: This framework leverages existing infrastructure – bank accounts (Jan Dhan), unique identity numbers (Aadhaar), and mobile phones – to facilitate secure and efficient digital transactions.
- Increased Internet Penetration: Improved internet connectivity, particularly in rural areas, is crucial for digital payment adoption. Initiatives like BharatNet aim to bridge the digital divide.
- Point-of-Sale (PoS) Infrastructure: The government incentivizes the deployment of PoS terminals in small shops and businesses, making digital payments accessible to a wider audience.

Merchant Onboarding

- Government initiatives incentivize businesses to adopt digital payment methods by offering fee waivers and cashback schemes. This has significantly increased the acceptance of digital payments across various sectors.

Digital Transactions for Government Services

- The government encourages citizens to pay taxes, utility bills, and other dues electronically, creating a strong use case for digital payments.

Demand for Payment Devices:

- Increased Digital Transactions: The volume of digital transactions in India has grown exponentially. As per the RBI, digital transactions reached a staggering 28,174 crore in FY 2026
- UPI's Dominance: As per NPCI, UPI recorded over 24,161.69 Crore transactions in FY 2026. This signifies the immense popularity and reach of UPI in India. It has emerged as the most popular digital payment method in India. Its compatibility with various mobile wallets and banking apps allows for seamless transactions using smartphones, a ubiquitous device even in rural areas.
- Card Adoption: Debit and credit cards continue to play a vital role, particularly for online transactions and larger purchases. Increased financial inclusion has led to a rise in debit card usage.
- Small Business Adoption: Small businesses have embraced digital payments due to convenience, faster settlements, and reduced cash handling costs. UPI and QR code payments have been particularly beneficial for micro-merchants who can now accept cashless payments easily.

The government's relentless push for digital payments, coupled with the development of a robust infrastructure and ecosystem, has significantly transformed India's financial landscape. The increasing adoption of digital payment devices by individuals and businesses across urban and rural areas signifies a paradigm shift towards a cashless future. As digital payment solutions continue to evolve and offer greater convenience and security, their penetration is expected to soar further, fostering financial inclusion and economic growth in India.

Data Migration

Data migration, the process of transferring data from one storage system to another, has undergone a significant shift in India. Traditionally, data resided on physical media like tapes and disks. However, the digital revolution has driven a massive migration towards cloud-based and digital storage solutions. This shift presents a growing demand for data migration services.

Evolution of Data Migration:

From Physical to Digital

- Early data migration involved manual processes like transporting physical tapes and disks. This approach was time-consuming, prone to errors, and limited scalability.

Digital Transformation

- The rise of cloud computing, big data analytics, and digital business models necessitates the efficient movement of vast amounts of data. This has spurred the adoption of automated data migration tools and methodologies

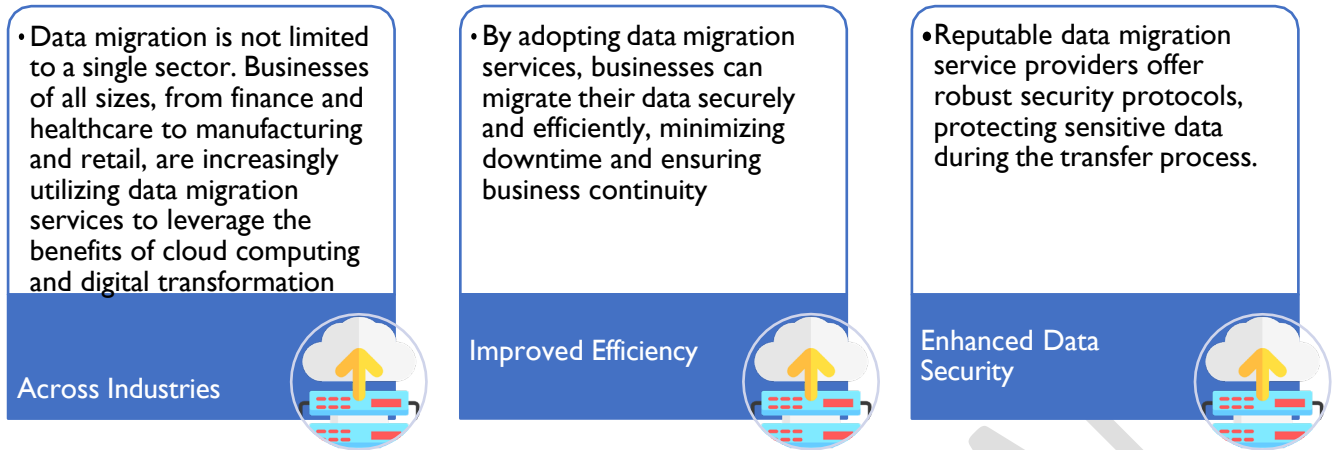
Driving Forces for Data Migration Services:

- **Government Initiatives:** India's "Digital India" mission emphasizes digitalization across various sectors. This promotes cloud adoption and data center consolidation, driving the need for secure and efficient data migration services.
- **Compliance Requirements:** Regulations like the Data Protection Bill necessitate robust data security practices. Data migration services ensure compliance by facilitating the secure transfer of sensitive data to secure cloud environments.
- **Business Process Optimization:** Companies are migrating data to the cloud to optimize operations, improve data accessibility, and benefit from scalability and cost-effectiveness.
- **Evolving Technologies:** As technologies like artificial intelligence and machine learning become more prevalent, the need for efficient data migration to support these applications grows.

Government Facilitation:

- **Digital Infrastructure Development:** The government is investing in building a robust digital infrastructure, including high-speed internet connectivity. This facilitates faster and more reliable data transfer processes.
- **Skilling Initiatives:** Government programs are focusing on developing a skilled workforce for the IT sector, including data migration specialists. This ensures the availability of qualified professionals to manage data migration projects.

Adoption by Businesses:



The digital revolution in India has transformed data migration from a manual process to a critical element of digitalization. Government initiatives, evolving technologies, and the growing need for secure and efficient data movement are driving the demand for data migration services. As businesses across industries embrace the cloud and digital transformation, the future of data migration in India is bright, offering significant opportunities for service providers in this dynamic market.

Experience Zones

The Indian retail landscape is undergoing a paradigm shift, moving from purely transactional stores to immersive experiences. Enter experience zones – interactive spaces designed to engage all five senses and create a deeper connection between brands and consumers.

Factors Fuelling the Growth of Experience Zones in India:

Shifting Consumer Preferences

- Indian consumers, particularly millennials and Gen Z, seek engaging experiences that go beyond just buying a product. They value authenticity, personalization, and a connection with the brand story.

Rising Disposable Income

- As disposable incomes increase, consumers are willing to spend more on experiences that add value and create lasting memories.

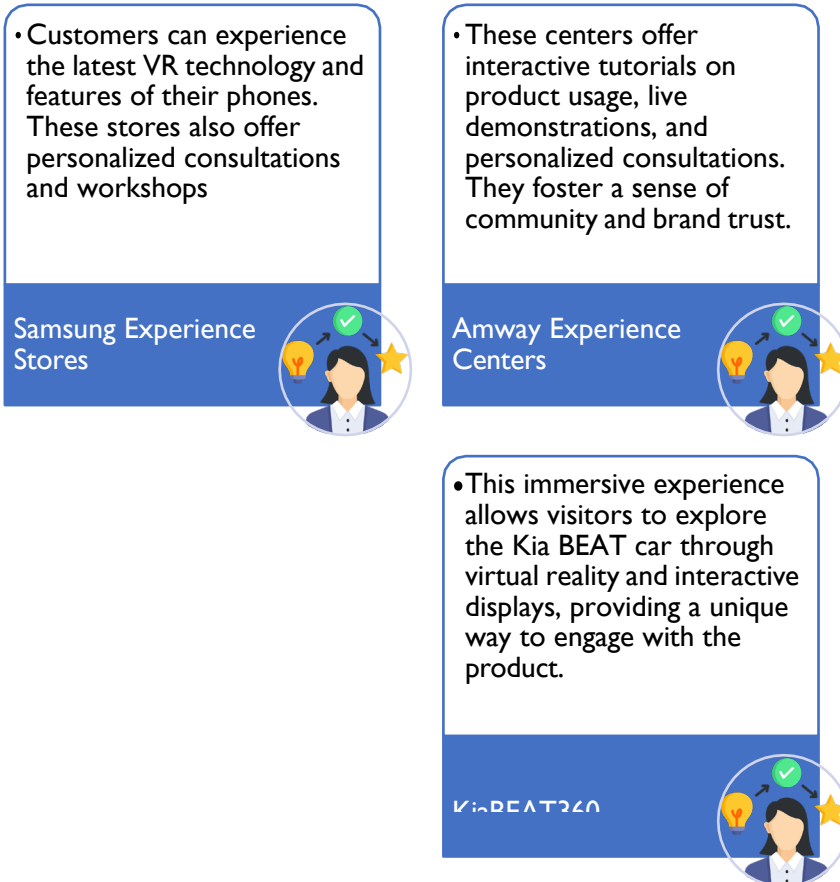
Digital Natives

- Growing digital adoption has fueled a demand for interactive experiences that mirror the online world

Demand Drivers for Experience Zones:

- **Brand Differentiation:** Experience zones provide a unique platform for brands to differentiate themselves from competitors. They can showcase product functionalities, highlight brand values, and create a lasting impression.
- **Increased Customer Engagement:** Interactive elements and engaging activities lead to higher customer engagement, fostering brand loyalty and advocacy.
- **Data Collection and Insights:** Experience zones allow brands to collect valuable customer data through interactive elements. This data can be used to personalize future interactions and tailor product offerings.

Current Examples of experience zones operating in India:



Experience zones are poised for significant growth in India. With increasing urbanization, rising living standards, and a growing tech-savvy population, the demand for engaging and interactive experiences will continue to rise. Brands across various sectors – from automobiles and electronics to fashion and beauty – are likely to embrace this trend to enhance their customer connect.