N·S·D·C
National
Skill Development
Corporation

Sector Handbook

Briefing Notes on Sectoral Markets and Policies

December 2019

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Introduction

The Indian economy grew at 6.8 per cent in 2018-19, slightly lower than 7.2 per cent in 2017-18. Yet, India continued to be the fastest growing major economy in the world. There are several reasons for India being able to hold onto its economic growth in times when the global Gross Domestic Product (GDP) growth declined from 3.8 per cent in 2017 to 3.6 percent in 2018. India's commitment to contain fiscal imbalance, sound external position, rising FDI inflows, comprehensive structural reforms, financial inclusion and policy initiatives such as Make in India, Skill India, Start-up India, etc. have provided a robust framework for sustaining strong and inclusive growth. Furthermore, India's performance in the Doing Business Ranking, Global Competitiveness Index, Logistics Performance Index and Global Innovation Index are all positive and encouraging.

India offers an expanding market with income levels and size of middle class increasing. Over the medium term, infrastructure investments are expected to lead to better connectivity and reduced logistics costs for businesses. In addition, digitalization led by technologies such as Internet of Things, artificial intelligence, robotics, big data and block chain has led to positive disruption in both governance and business and is likely to drive growth across sectors in the near term.

This sector handbook, prepared in association with KPMG, examines 25 key sectors of Indian economy sectors with the aim of providing decision makers a quick snapshot of trends and drivers impacting these sectors' growth. It also offers a brief coverage of these sectors in terms of market size and segments, key drivers and major Government policies that are shaping up the Future of Work and creating demand for skilled manpower in these sectors.

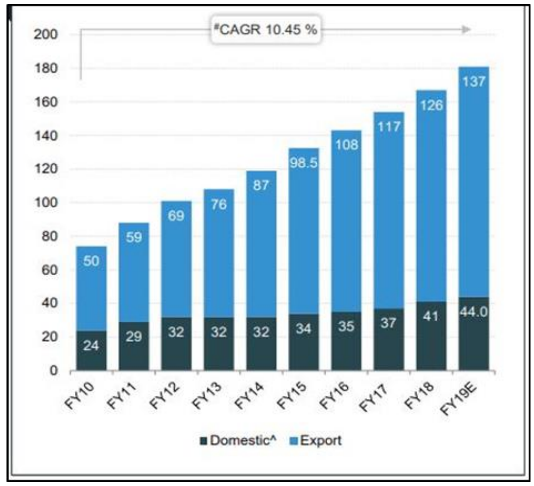
Sectoral Overview

1. Information Technology & Information Technology Enabled Service (IT & ITeS Sector)

Market Segment:

The Indian IT & ITES industry grew to USD 181 billion in FY 2018-19, driven primarily by increasing focus on the digital transformation of businesses and expansion of digital-driven services to cater to clients across the globe. Led by increasing digitalization of businesses and operations across the globe, the industry revenue is forecast to reach USD 350 billion by 2025. Digital segment is projected to account for 38 per cent of the industry revenue by 2025.

Figure 1: Estimated market size of IT & ITES Sector in India (in USD billion)



The industry is divided into four major segments viz. IT Services, Business Process Management, Software Products and Engineering Services, and Hardware. Market size for different segments for FY 2018-19 is as below[1]:

1. IT Services – USD 92.5 billion
2. Business Process Management. – USD 36.2 billion
3. Software Product and Eng. Services – USD 34.4 billion
4. Hardware – USD 14.5 billion.

Market Trends[2]:

1. Global revenue from digital is seeing over 20 per cent CAGR growth over 2017-19 and is estimated at USD 267 billion in FY 2018-19.
2. Outsourcing contracts in 2018 grew a robust 18 per cent largely driven by a 45 per cent growth in as-a-service contracts.
3. Industry's export for FY 2018-19 are estimated to reach USD 136 billion, an 8.3 per cent y-o-y growth with USD 10 billion added over the last year.

Key Metrics Driving Digital Business:

1. **IP Monetisation/Patent Filed** – Service providers increasingly focusing on creating products/platforms on new age technologies
2. **Digital Skilling** – Re-skilling existing employees at all-time high across the service providers ecosystem

[1] NASSCOM, Tech Sci Research, News Source
[2] Nasscom – IT-BPM Sector in India 2019

3. **Customer Satisfaction** – Measuring customer satisfaction emerges as a key metric for service providers to measure digital growth
4. **Digital Revenues/Margins –** Service Providers have started to measure and disclose digital revenues publicly
5. **Investments in Digital –** Service providers are actively investing into building capabilities on digital platforms and services
6. **Driving Automation Internally –** IT firms are actively looking to deploy automation internally to boost productivity
7. **Client Related Metrices** – Service providers are actively mining targeted clients to drive digital revenues

Growth of Unicorns in India

1. India has seen the highest number of unicorn start-ups in the tech sector after US and China
2. Eight Indian startups attained Unicorn status in 2018 (till Sept), highest addition in a single calendar year
3. More than 10 members are expected to be added to the list by 2020.

Key Initiatives and Policies in the Sector:

Some of the major initiatives taken by the government to promote IT-ITES sector, are listed below[3]:

1. The sector has been identified as one of 12 champion service sectors for which a detailed action plan is being prepared. A fund to the tune of USD 745.82 million has been setup in 2019 for realizing the potential of these champion service sectors.
2. As a part of Union Budget FY 2018-19, NITI Aayog announced setting up a national level program which will enable efforts in developing Artificial Intelligence (AI) solutions and will help in leveraging AI technology for the development in the country.
3. In the interim budget FY 2019-20, the Government of India announced plans to launch a national program on AI and setting up of a National AI portal.
4. National Policy on Software Products-2019 was passed by the Union Cabinet to develop India as a software product nation.

3 https://www.ibef.org/industry/information-technology-india.aspx

6 Care Rating,/Indian IT & ITES Industry

5. Government initiatives such as Digital India, Start-up India, Smart Cities and Digital Payments are catalyzing growth in domestic revenues (which have advanced to USD 44 billion in FY 18-19) and have led to a growth in the UPI transactions (which have increased from 0.1 million to 800 million in the last 3 years)[4].
6. Launch of Smart Cities and E-Governance to push digital talent through Skill India.
7. Drive towards a cashless economy through introduction of UPI and other payment systems.
8. Introduction of Phased Manufacturing Program (PMP) to promote manufacturing of cellular mobile phones in India.
9. The National Optical Fiber Network (NOFN) to connect all the 250,000 gram panchayats.

[4] https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/a-refreshed-digital-india-programme-will-play-critical-role-in-the-pursuit-of-5-trillion-economy/articleshow/70067053.cms?from=mdr

2. Telecom

Market Segment:

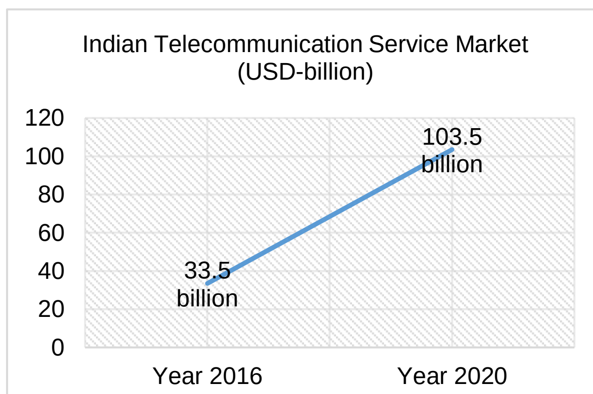
Augmented by the formation of National Telecom Policy (1999), Indian telecom sector has seen tremendous growth and is now not only the second largest telecommunications market in the world but is also one of the largest data consumers with more than 1.18[5] billion telecom subscribers and a tele density of more than 90 per cent. The sector can be divided into 6 different sub-sectors: Service Providers, Infra Providers, Network and IT Providers, Telecom & Equipment Manufacturers, Retail & Distribution and Mobile & Handsets Manufacturers.

The sector has witnessed exponential growth in the past resulting from favourable market conditions- affordable tariffs, wider reach and availability, roll out of Mobile Number Portability (MNP), expanding 3G and 4G coverage, budding consumption patterns of subscribers and a conducive regulatory environment.

The Indian telecom sector has been on a roller-coaster ride over the past few years. After posting losses in excess of USD 5.62 billion in the last two years, the industry has consolidated, with the top three players - Vodafone Idea, Bharti Airtel and Reliance Jio - accounting for over 90 per cent market share in revenue terms. The current fiscal saw financial stress across the industry which led to consolidation of top players in the industry. Further, we have also witnessed a host of operators' shutdowns and M&A announcements. The government is also exploring to drive efficiencies through a revival package for BSNL and MTNL that includes merging the two loss-making entities and leverage their substantial asset base, so that the combined entity turns profitable in two years.

Despite this, industry is expected to recover with revenue projected to rise ~7-8per cent[6] in 2020. The expected growth would occur despite a drop in the subscriber base amid SIM consolidation and a saturated urban market.

Figure 2: Telecom Segment Market Growth



The sector's contribution to India's GDP is likely to grow from **~6.50per cent[7]** in 2017 to **8.50[7]per cent** in FY 2020. The sector's gross revenue increased to USD **39.5 billion** in FY 2018.

The market size is expected to grow to USD 103.5 billion by FY 2020. In FY 2018, the major contribution to the market size was made by the growth in handset manufacturing business and the overall growth in the wireless subscribers in the country.

Market Trends:

Technological advancements have been the primary growth driver for the sector. The expanded customer base coupled with the Government's push for Digital India have resulted in the rise of many service providers who are rolling out services in health, financial services, education, and entertainment In India.

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[5] https://main.trai.gov.in/sites/default/files/PR_No.40of2019.pdf

[6] https://www.crisil.com/en/home/our-analysis/reports/2017/09/sector-report-telecom-services.html,Sep 2019; accessed on Dec 4,2019

[7] Telecom sector, Invest India, https://www.investindia.gov.in/sector/telecom, accessed on May 24, 2019

1. **Consolidation and rising investments:** Large scale M&A activity for consolidation amongst service providers (Idea-Vodafone and BSNL-MTNL). The government is expecting investments of ~USD 100[8] **Bn** for the draft National Digital Telecommunications Policy via Foreign Direct Investment **(FDI) by 2022.**
2. **From "digital transformation to "digital journey":** Driven by changes in consumption patterns, the telecom businesses have been enforcing massive transformation to stay competitive. Cloud and 5G are the emerging technologies aimed at providing exceptional customer experience.
3. **SMART Cities:** The industrial connections are an essential part of capturing and transmitting data, and enable smart city operations such as smart lighting, metering and smart grid. A smart city uses information and communication technologies to enhance quality of services delivery at affordable costs to the entire population of the city. Embedded telecom infrastructure across the smart city works as a mesh in which data flows seamlessly and enables tasks like routing water to water deficient areas or responding to an emergency in the quickest and shortest possible way.
4. **E-Commerce:** The growing e-commerce space including online shopping and food delivery business has created a strong demand for the telecom data which has become one of the key growth drivers for the sector in India.
5. **Internet / Mobile Banking:** Driven by information and transaction security, India has made huge strides in the areas of digital payment, banking, mPayments etc. This has resulted from the government's push for cashless transactions using a platform provided by telecom operators. As of August 2019, more than **525**[9] banks have been permitted to provide mobile banking services in India.
6. **IoT:** IoT as a solution is dependent on electronically interconnected and integrated machines, which help in gathering user specific data and helps in designing solutions personalized to the needs of the consumer. The Indian Government's plan to develop 100 smart city projects will require large scale investment in creation and deployment of IoT based solutions in those cities.

Key Initiatives and Policy in the Sector:

Telecom sector in India has been one of the most regulated and the priority sector for the Government. Realising the importance of the sector, the Government has been proactive in its efforts to transform India into a global telecommunication hub.

1 **National Digital Communications Policy – 2018 (NDCP):** Formulated in FY 2018 to replace the National Telecom Policy of FY 2012, NDCP envisages to facilitate and augment India's effective participation in the global digital economy. The policy aims to attract USD 100 billion worth of investments and generate 4 million jobs in the sector by FY 2022.
Key features of the policy are:
- Universal broadband connectivity at **50 Mbps** to every citizen
- 1 Gbps connectivity to all Gram Panchayats by FY **2020** and **10 Gbps** by **2022**
- Ensure connectivity to all uncovered areas
- Skill training and development of **1 million** manpower
- Expand IoT ecosystem to **5 billion** connected devices.

2 **Relaxation of FDI norms** – FDI cap in the telecom sector has been increased to 100 per cent (earlier 74 per cent), which has resulted in FDI inflows of more than **USD 16 Bn** over the last 5 years.

[8] https://www.thehindubusinessline.com/news/telecom-sector-looking-at-an-investment-of-100-billion/article25037598.ece
[9] https://rbidocs.rbi.org.in/rdocs/Content/PDFs/2012F_LMBS.PDF

3 Initiatives such as "**Digital India**", "**Make in India**" and "**Invest India**" are expected to see significant investment, especially, in the handset manufacturing space. For e.g. Taiwan based telecom component manufacturer Foxconn has planned an investment of **USD 5 Billion by 2020**[10].

4 Setting up of guildelines and building adoption protocols by TRAI for strengthening quality of standards in wireline (telephone service) and cellular mobile telephone services for enhanced infrasructue.

5 Establishment of 8 **Centre of Excellences** in India by Telecom Centre of Excellence (TCOEs) a PPP initiative by the Department of Telecommunications, Government of India, to strengthen the R&D ecosystem in ICT.

6 The Department of Telecom along with Telecom Centers of Excellence and C-DOT has set up"Ten Squares" or Telecom Entrepreneurship Square in the year 2017, which incubates selected startups right from seed funding upto the development phase of technology. The initative aims to incubate 10 startups every year.

7 Formation of Telecom Sector Skill Council (TSSC) to create an eco-system for quality vocational education and skill development. As part of its operations the council has been mandated to certify **4.5 million** personnel in **150** trades, train **24,000 trainers**, accredit **500** training organizations and to cover the whole country progressively over a period of 10 years starting from 2014 by signing MOUs with around 200 industries.

8 TSSC has created and approved **45** Qualification Packs (Service Providers, Network Management, Handset Segment & Passive Infrastructure). Over **38 Training of Trainers (ToT)** centres have been identified and promoted.

[10] https://economictimes.indiatimes.com/tech/hardware/telecom-parts-makers-may-invest-up-to-5-billion/articleshow/71265884.cms?from=mdr

3. Retail

Market segment:

Over the last few years, the Indian retail industry has emerged as one of the fastest growing industries and has witnessed the entry of several new service providers. The growth of the sector can be attributed to the advent of digitization, rising purchasing power of consumers and their evolving consumption patterns and rapid urbanization. The Indian retail market is projected to reach USD 1.2 trillion and become one of the top five retail markets in the world by economic value. India's e-commerce market is also set to grow at a CAGR of 30 per cent with gross merchandise value to be worth USD 200 billion by FY 2026 and have a market penetration of 12 per cent as compared to 2 per cent currently. The Indian retail sector is divided into organized and unorganized sectors.

Organized retail is characterized by high investment requirements (both initial and maintenance), setting up of large premises, deployment of trained staff and the retailers are licensed corporations which are registered under the respective laws and are required to pay taxes to the government. While the unorganized retail includes the traditional form of retail situated near residential areas, which is generally characterized by low rentals, low tax payouts with a majority of it being owner-managed and employing personal capital. The outlets include a mix of conventional kirana shops, general stores, mom-&-pop stores and other small retail outlets. The sector is dominated by the unorganized retail trade which is 91 per cent of the overall trade. The sector in India accounts for over 10 per cent of the country's GDP and provides the second highest rate of employment after Agriculture, contributing nearly 8 per cent of the employment.

Market Trends:

The industry is constantly evolving at a rapid rate; in addition to making it easier for consumers, tech interventions have been able to help retailers experience interruption free supply chain, meet demands, build trust and maintain competitive advantage over industry players. The key trends boosting the retail sector are presented below:[11]

1. **Experiential Retail:** This trend aims to provide a personalised experience to the customer, where customer can interact with product or brand rather than being a passive participant to better suit the customers' requirements. For instance, lot of retailers have incorporated smart devices in their outlets, wherein customers can sign in, search their purchase history and bucket list, providing customer insight for the sales assistants. Their high-tech advancements also give the customers the opportunity to customize their purchase orders and order a wide range of products, with different styles and fabrics.

2. **Augmented Reality vs Virtual Reality:** Another upcoming trend is the utilisation of AR and VR based solutions to create improved experiences for the customers. As per industry experts, it is expected that by FY 2020, the retail industry is slated to be the top spending industry on AR and VR, with an envisaged spending to the tune of USD 1.5 billion [12] on augmented reality (AR) and virtual reality (VR) technology in 2020, more than any other industry. For instance, IKEA launched a new VR experience that places shoppers in the middle of a 3D kitchen that can be purchased.

3. **Multi-Channel Retail:** Over the last few years, multi-channel retailing has gained increasing popularity. In order to increase scale of operations and provide efficient solutions, many service providers aim to reach out to a vast segment of the market through levering communication

[11] https://www.moneycontrol.com/news/business/companies/5-trends-that-will-redefine-retail-industry-in-2019-3351261.html
[12] https://www.chargedretail.co.uk/2019/12/04/retailers-ar-and-vr-spend-to-outpace-every-other-industry-next-year/

technologies. The most common device which has seen increased penetration by shoppers is mobile phones. The expansion of internet users and increased mobile phone penetration has made it imperative for service providers to move their businesses online.

4. **Hyper Personalization:** A lot of service providers are investing heavily to introduce personalization of services for the customers to improve the customer experience and build brand loyalty. An example in this sphere is- Stitch Fix–which is an online retailer that offers customers access to personal stylists who help them by providing customized clothing solutions based on individual preferences. The increased flexibility provided helps enhance customers' shopping experience, which has helped in effective scaling of operations by the retailer.

5. **Automated Retail:** The retail industry is looking towards exploring methods to create a human interaction-free experience for the consumer to drive process efficiencies and improve the overall quality and experience. This has resulted in many retailers who have already adopted the cashier-less model. Automated retail is now a broad area including everything from vending machines to unmanned kiosks to unattended grocery stores. For instance: Big Basket has launched BB Instant, as part of a broader strategy to increase the volume and frequency of orders on its platform.

Key Initiatives and Policy in the Sector:

Over the period between 2014-2019, the Government of India has taken a slew of measures to improve the retail industry. Some of the key initiatives are listed below:[13]

1. The Reserve Bank of India (RBI) has released guidelines in Oct 2018 allowing "inter-operability" among Prepaid Payment Instruments (PPIs) such as digital wallets, prepaid cash coupons and prepaid telephone top-up cards. These measures are expected to open up a host of methods for effective payment and increased convenience of the customers.

2. In order to increase the adoption of digital payment methods, since 2014, the Government of India has distributed rewards worth around USD 23.8 million to 1 million customers under the Lucky Grahak Yojana and Digi-Dhan Vyapar Yojana. The Lucky Grahak Yojana and the Digi-Dhan Vyapar Yojana offered cash awards to consumers and merchants who utilized digital payment instruments for personal consumption expenditures. The scheme specially focused on bringing the poor, lower middle class and small businesses into the digital payment ambit.

3. The Government of India launched an e-commerce portal called TRIFED in 2018 and an m-commerce portal called 'Tribes India' which aims to provide 55,000 tribal artisans, access to national and international markets. It involves increasing the amplitude of the tribal people through effective refinement, formation of Self-Help Groups (SHGs) and imparting training to them for undertaking local manufacturing, exploring marketing possibilities in national as well as international markets and creating opportunities for marketing tribal products on a sustainable basis.

4. Increasing of FDI limit to 100 per cent in 2016 and introduction of stricter norms in 2019 in the e-commerce model to encourage the participation of global entities, thereby creating potential for increased employment opportunities.

5. The e-commerce industry been directly impacting the micro, small and medium enterprises (MSME) in India by providing means of financing, technology and training and has a favorable cascading effect

[13] https://www.export.gov/article?id=India-e-Commerce

on other industries as well. For instance, online retail sales in India are growing, led by Flipkart, Amazon India and Paytm Mall. eCommerce has proved to be an effective mechanism for top brands of the countries to reach Indian customers and has emerged as one of the fast-growing trade channels available for the cross-border trade of goods and services.

4. Building and Construction

Market Segment:

The construction industry in India consists of the real estate (constituting 60 per cent of the market value) and the urban development segment (constituting 40 per cent of the market value). The real estate segment covers residential, office, retail, hotels and leisure parks, among others, while urban development segment broadly consists of sub-segments such as Water supply, Sanitation, urban transport, schools, and healthcare. The sector has 9 per cent share in India's GDP and employs 44 million people[14].

The market size of the industry is anticipated to reach USD 738.5 billion by FY 2022 growing at CAGR of 15.7 per cent and USD 1 trillion by FY 2025. Further, the construction industry is expected to grow at an annual average of 6.6 per cent from FY 2019 to 2028, making India the third largest construction market across the globe by FY 2030[15], with its contribution to GDP increasing to 15 per cent as per the estimates.

Detailing into sub sectors, it is expected that the Indian Real Estate market will grow to a market size of USD 180 billion by FY 2020 and USD 1 trillion by FY 2030, with a 13 per cent contribution to the country's GDP. In fact, capital investments in the sector are expected to increase from USD 651 billion in FY 2012-13 to USD 1,181 billion in FY 2019-20[16].

Market Trends:

India will be required to spend USD 454.8 billion on infrastructure development over the period of five years (FY 2015-20), with 70 per cent of funds needed for power, roads and urban infrastructure segments:[17]

- Demand for affordable housing is more likely to increase from current level of 29 million households to more than 38 million households by FY 2030
- Demand for warehousing space (ambient and cold chain) in the country in major Tier-I and Tier-II cities is expected to surge as industrial parks are being setup and food trends shifting to more processed food
- Rapid growth in the Information technology and financial services space and upcoming expansion plans of businesses into Tier-II and Tier-III cities.

Key Growth Drivers

- *100 Smart Cities to be developed by 2020*
- *5 Industrial Corridors planned*
- *25 railway stations re-development*
- *6 Mega Ports planned*
- *Increasing demand for commercial space*

Technology Trends: Anticipating high growth, some of the technological advancement are driving construction industry forward such as use of telematics, drones, mobile apps, cloud storage, autonomous heavy equipment, robotics, artificial intelligence (AI), virtual reality (VR), 3D prints etc.[18].

1 **Software and Mobile Apps** – These cloud-based services assist in real time management and better communication and collaboration.
2 **Offsite Construction** – Used on projects with repetitive layouts or floor plans in their designs. It comes in two forms: Modular units (transported to destination sites and then inserted into the structural frame) and Fabricated units (parts are built offsite and assembled at the construction site).

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14 https://www.investindia.gov.in/sector/construction
15 https://www.ibef.org/industry/infrastructure-sector-india/showcase
16 https://nsdcindia.org/sites/default/files/Building-Construction-Real-Estate.pdf
17 https://www.investindia.gov.in/sector/construction
18 https://nsdcindia.org/sites/default/files/Building-Construction-Real-Estate.pdf

3 **Artificial Intelligence and Machine Learning** – This helps in making informed decisions, increasing productivity and improving job safety. AI can help reduce time wastage as the sensors can help track the movement on the site, and analyse the information.
4 **Augmented and Virtual Reality** – VRs can be used to train workers and help them get exposure to real life situations such as height and environment but in a controlled setting.
5 **Wearable and Site Sensors** – In order to improve the general safety of workers on the construction site, a host of construction wearables are being outfitted with biometrics and environmental sensors, GPS and location trackers, Wi-Fi, voltage detectors, and other sensors to monitor workers' movements, postures, repetitive motions, and falls.
6 **Drones and Robots -** Robots can be well trained to do simple repetitive tasks such as bricklaying. Drones are being used to perform inspection and locate potential hazards on a jobsite by taking pictures and update the management of the changes in the working place.
7 **Autonomous Heavy Equipment** – This technology works like automatic cars and is used on construction sites to perform the work of excavation, grading and site work without human intervention.
8 **Building Information Modeling** – A process which recognizes the digital representations of buildings in 3D models. This technology helps to facilitate better collaboration among all stakeholders on a project and can lead to better design and construction of buildings real time.

Key Initiatives and Policies in the Sector:

According to data released by Department of Industrial Policy and Promotion (DIPP), the construction development sector in India has received Foreign Direct Investment (FDI) equity inflows to the tune of USD 25 billion in the period April 2000-March 2019[19].

Government Schemes supporting Construction sector
Smart Cities Mission
Swachh Bharat Mission
Heritage City Development and Augmentation Yojana (HRIDAY)
Pradhan Mantri Awas Yojana
Atal Mission For Rejuvenation And Urban Transformation (AMRUT)

Key initiatives taken up by the Government are:

1 100 per cent FDI through the automatic route is permitted in the construction (development) projects[20]
2 In Special Economic Zones, the FDI Limit has been raised to 100 per cent for real estate projects
3 **Global Housing Technology Challenge –** to bring in technologically most innovative construction technologies and to give boost to development of technological research and to facilitate sharing of knowledge across the sector.
4 **GST Regime Implications –** As per the guidelines of the scheme, promoters are required to pay 1 per cent GST in case of affordable housing and 5 per cent on construction of houses which do not fall under the category of affordable housing.
5 **Real Estate Regulation Act -** Bringing 76,000 companies coming its ambit, the Act aims to reform the real estate sector in India by making it citizen centric and encouraging transparency and financial discipline.
6 **Development of State/SEZ/EMCs/Sectoral Clusters:** There are incentives for Special Economic Zone developers such as exemption from Central Sales Tax, Exemption from Service Tax, and Exemption from Customs/Excise Duties etc.
7 Formation of **Construction Skill Development Council of India (CSDCI)** which is promoted by Construction Federation of India (CFI), Builders' Association of India (BAI), National Highways Builders Federation (NHBF) and Confederation of Real Estate Developers Association of India (CREDAI).

[19] https://www.ibef.org/industry/infrastructure-sector-india.aspx
[20] http://www.makeinindia.com/sector/construction

8 Indian Construction sector has 98 approved qualification packs with 596 National Occupational Standards (NOS) which are aligned to National Skills Qualifications Framework (NSQF).

5. Auto and Auto Component

Market Segment:

The automotive industry, comprising both automobile manufacture and auto component subsectors, is one of the key growth drivers of the Indian manufacturing sector. The automobile industry in India is currently fourth largest in the world and is poised to reach **USD 251.4 - 282.8** billion by FY 2026. Overall domestic automobiles sales grew at **6.71per cent** CAGR for the period of **FY 2013-19** with **26.27**[21] million vehicles getting sold in **FY 2019.** Commercial vehicles have contributed the most for the overall growth in the sector over the past 2 years.

In the current fiscal, the Indian automotive industry, especially passenger vehicle segment, has witnessed one of the worst slowdowns in the last two decades due to a host of factors like tighter financing environment for consumers and liquidity crunch faced by dealerships, weak rural income and overall slowdown in economic activity.

During April-August 2019, auto industry sales (including Passenger Vehicles, Commercial Vehicles and two & three wheelers) registered a y-o-y decline of about 13.3per cent[23] in overall sales vis-à-vis a double-digit growth of 14.5per cent[23] registered a year ago. However, in August 2019, the sales of passenger cars (led by Multi Utility Vehicles) and three wheelers have witnessed growth of about 1.8per cent[23] and 9per cent[23] respectively on m-o-m basis, while the decline in sales of commercial vehicles and two wheelers have narrowed down to 7.4per cent and 0.3per cent m-o-m respectively vis-à-vis a decline of 17.5per cent and 6.6per cent during the previous month.

The sales growth during the period was largely restricted on account of weak demand for commercial vehicles and passenger vehicles registering a decline of 21.5per cent[23] and 18.8per cent[23] y-o-y. Price hikes of about 10-15 per cent in passenger vehicles and two wheeler segments due to new safety norms starting April 1, 2019, higher insurance costs, increased fuel costs and unsold inventories at retail (dealers) level causing slow movement in wholesale movement led to the overall decline of automobile sales during April-August 2019.

Market Trends:

- **Electric Vehicle Segment:** Fueled by the 'National Electric Mobility Mission Plan (NEMMP) 2020' the segment has seen involvement of large players such as Volvo, Tata, Hyundai etc.
- Introduction of BS VI norms equivalent to Euro VI for reduced carbon emissions. All existing BS IV vehicles to be phased out by **FY 2020**
- New entrants such as **Kia Motors** and **Morris Garage** in the Indian Automobile manufacturing space
- Overall decline in automobile industry marked by large scale layoffs in **July 2019**. The industry declined at rate of **19 per cent**[22]. Poor consumer sentiments coupled with pressures coming from financial stress at the banking sector are identified as the reasons for decline in the sector.

Key Growth Drivers:

[21] Society of Indian Automobile Manufacturer's (SIAM)

[23] Care Rating Automobile Industry Update: April - August 2019

[22] https://www.indiatoday.in/auto/latest-auto-news/story/major-indian-automobile-companies-witness-sales-decline-in-july-2019-1576200-2019-08-01

Growing Demand

- Rise in middle class income and earning young population

Competitive Advantage

- Cost effective manufacturing base keeps costs lower by 10-25 per cent relative to operations in Europe and Latin America
- India is third largest producer of steel

Opportunities

- India to become leader in shared mobility by 2030 providing opportunities for electric and autonomous vehicles

Rising Investment

- FDI inflows was USD 20.85 billion April 2000 to December 2018

Key Initiatives and Policies in the Sector:

- To address the apparent slowdown in the sector, the Government of India is encouraging foreign investment in the automobile sector and has allowed 100 per cent FDI under the automatic route
- To incentivize consumers for increased adoption of electric vehicles, the government has started Faster Adoption and Manufacturing of Hybrid and Electric vehicles (FAME) scheme. It is further envisaged that a new National Auto Policy and Faster Adoption and manufacture of Hybrid and Electric Vehicles (FAME) II to promote clean future in mobility. **FAME II** scheme has been approved by Government with a planned outlay of USD 1.4 billion to boost the number of electric vehicles in India and USD 0.14 billion for setting up of charging stations for electric vehicles for three years till FY 2022. The scheme has been implemented with effect from 1st April 2019.
- **National Electric Mobility Mission Plan** has been formulated to promote consistent, affordable and competent EVs (hybrid and electric vehicles) that meet consumer performance and price expectations through government-industry collaboration
- Delhi Government in March 2019 approved purchase of 1,000 Electric buses to be used in Delhi's public transport system to promote eco-friendly transportation
- Formation of **The Automotive Mission Plan 2016-26 (AMP 2026)** to create an ecosystem for the growth of the automotive sector in India. The AMP encompasses essential elements with respect to-regulations and policies that govern research, design, technology, testing, manufacturing, import/ export, sale, use, repair, and recycling of automotive vehicles, components and services
- Department of Heavy Industries in Feb 2018 had formulated a draft **National Automotive Policy**, for the holistic development of the Automobile industry in India
- Planned stimulus to support the sector by:
  - Enhanced purchase of new vehicles via government departments
  - increased rate of depreciation, allowing businesses to write off their vehicles faster
  - Delayed increase in vehicle registration fees enhancement plan
  - Bharat Stage IV vehicles to be allowed to ply for the entirety of the registration period.
- In a bid to improve manufacturing of EVs, Uttarakhand Government has introduced a scheme which would provide companies with loans ranging between USD 0.14 million and USD 0.70 million to build EV's and charging infrastructure
- Formation of Automobile Skill Development Council to continually develop and upgrade Automotive Skills for Higher value additions (higher value addition through Skilling will facilitate capital creation, leading to more economic activity and consequent additional jobs) by development of 200+ Qualification packs
- Development of Occupation Standards for R&D, Manufacturing, Sales, Service and Driving Domain.

6. BFSI

Market segment:

The Banking Financial Services and Insurance (BFSI) sector in India comprises three sub-sectors viz. Banking, Insurance and Financial Services. The aforementioned sub-sectors are experiencing growth in market size e.g. retail credit market in India increased from USD 181 billion in Dec, 2014 to USD 281 billion in Dec, 2017[23]; number of insurance policies issued have increased from 65.55 million in FY 2007-08 to 161.17 million in FY 2016-17[24]; number of mutual fund portfolios have increased to 74.6 million till Q1 FY 2017-18; total amount of assets under management of the mutual fund industry is USD 313.48 billion till Q2 FY 2017-18[25]; etc. It is estimated that amount of Digital lending in India will touch USD 1 trillion by FY 2022-23 from USD 75 billion in FY 2017-18.[26]

The Indian banking system now consists of 12 public sector banks post the merger announced by Ministry of Finance in Aug 2019, 21 private sector banks, 49 foreign banks, 56 regional rural banks, 1,562 urban cooperative banks and 94,384 rural cooperative banks, in addition to cooperative credit institutions (FY 2016-17 data). Between FY 2006-07 and FY 2017-18, total lending increased at a CAGR of 10.94 per cent and total deposits increased at a CAGR of 11.66 per cent.[27]

Market Trends:

Some of the trends which are impacting the growth of the sector are listed below:

1 **Digitization:** The rapid growth of digital technology, has made it critical for players operating in the BFSI sector in India to keep up with the changes and reinvent their business models through introduction of digital solutions for customers. These trends have made banking transactions easier, simpler, paperless, signatureless and branchless with various features like Immediate Payment Service (IMPS), Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT), Online Banking, and Telebanking. Digitization has resulted in the reduced cost of various banking procedures, improved revenue generation, and reduced manual errors.

2 **Block Chain:** Banking services in the future are expected to make increased use of the application of blockchain technology, which is expected to emerge as one of the biggest trends in financial services industry in both India and globally**.** NITI Aayog is creating IndiaChain, India's largest blockchain network, which is expected to reduce the chances of fraud, enhance transparency, speed up the transaction process, lower human intervention and create an database that cannot be hacked which is expected to impact payments, clearance and settlement systems, stock exchanges and share markets, trade finance, and lending etc.

3 **Artificial Intelligence (AI) Robots:** Over the last few years**,** several private and nationalized banks in India have started to adopt chatbots or AI robots for assistance in customer support services. The use of this technology is currently at a nascent stage, however the usage of chatbots with the higher level of intelligence are forecast to be adopted by the banks and financial institutions for improved customer interactions.

[23] IBEF, https://www.ibef.org/industry/banking-india.aspx, accessed on 24-May-19
[24] https://www.ibef.org/download/Insurance-Report-July-2018.pdf
[25] https://www.livemint.com/mutual-fund/mf-news/overseas-assets-of-mutual-funds-rise-31-in-fy-19-1569485051327.html
[26] http://image-src.bcg.com/Images/BCG-Digital-Lending-Report_tcm9-197622.pdf
[27] https://www.ibef.org/industry/banking-india.aspx

4 **The Rise of Fintech Companies:** Fintech companies and fintech apps have changed the way financial solutions are provided to the customers by improving the access to services and the quality of services. In India, the dynamic transformation has been brought upon by several important factors such as Government of India's Start Up India initiative, fintech startups, established financial institutions, incubators, investors, and accelerators.

Key Initiatives and Policy in the Sector:

Some of the initiatives taken by Government of India towards BFSI sector are mentioned below:[28]

1 Focus has been made by Government on **Financial Inclusion Plan**. Financial Inclusion Index has been launched by the Ministry of Finance, Government of India to measure the access, usage and quality of financial services provided. Villages were facilitated with approximately 5,98,093 banking outlets as on March 2017 (RBI data).[29]
2 Pradhan Mantri Jan Dhan Yojana (**PMJDY**) introduced in August 2014 aims to promote financial inclusion and provide affordable banking services. As part of the scheme, basic bank account facility with a debit card with inbuilt accident insurance is provided. The two most prominent offerings under this scheme, include INR 5,000 overdraft facility for Aadhar-linked accounts and a RuPay debit card with inbuilt INR 1 lakh accident insurance cover.[30]
3 GOI as part of budget 2019 has **raised FDI limit for insurance company** from 26 per cent to 49 per cent with the motive to attract more investments in Insurance sector.[31]
4 Insurance Regulatory and Development Authority of India (IRDAI) has permitted life insurance companies with minimum 10 years of operations and embedded value of double the paid-up equity capital to raise capital through Initial Public Offerings (IPOs).
5 IRDAI has also allowed insurance companies to **sell and register policies online** through its web portal - isnp.irda.gov.in.
6 First level approval has been sanctioned to Swiss, French, and German reinsurers to open their branches in India by IRDAI.
7 GOI had allocated a sum of USD 42.10 billion towards the **MUDRA Scheme** – Micro Units Development and Refinance Agency Ltd. in its FY 2019 Union budget (Pradhan Mantri Mudra Yojana).

[28] BFSI Services, India services, Ministry of commerce and Industry Government of India https://www.indiaservices.in/financial/, accessed on June 2, 2019
[29] https://www.indiaservices.in/financial
[30] https://www.ibef.org/industry/banking-india.aspx
[31] https://economictimes.indiatimes.com/industry/banking/finance/insure/budget-2019-government-raises-fdi-limit-to-insurance-cos/articleshow/70093412.cms?from=mdr

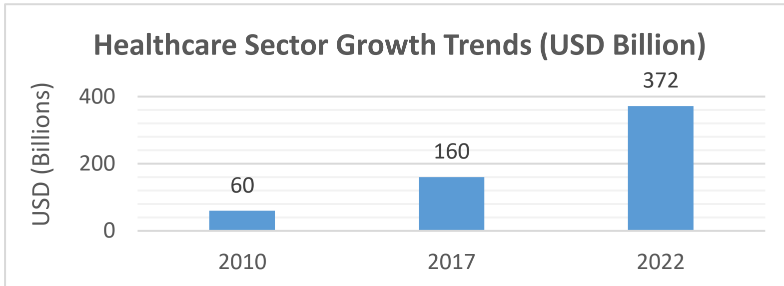
7. Healthcare, Pharma and Allied Services

Market Segment

Indian healthcare industry is broadly segmented into hospitals, clinic trials, outsourcing, medical devices, telemedicine, medical tourism, health insurance and medical equipment. Healthcare and allied services is one of India's largest sectors- both in terms of revenue and employment. Indian pharmaceutical sector is the largest provider of generic drugs globally and supplies over 50 per cent of global demand for various vaccines.

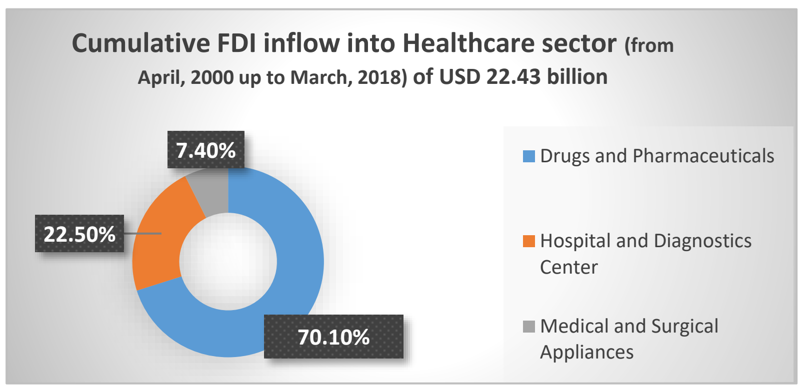
Indian Healthcare sector is expected to reach USD 372 billion by 2021-22 with a CAGR of 16.3 per cent during 2008-22 from USD 160 billion in 2016-17.[32] This implies that Indian Healthcare market will rank among top three healthcare markets worldwide with respect to incremental growth by 2020.

Figure 3: Healthcare Sector Growth Trends



During FY 2016-2017, Indian Healthcare has been ranked as 4th largest employer giving jobs to approx. 319,780 people and is expected to generate 40 million jobs by FY 2019-20.[32]

Figure 4: Cumulative FDI Inflow into Healthcare Sector from April, 2000 up to March, 2018



The pharmaceutical sector was valued at USD 33 billion in 2017. India's domestic pharmaceutical market turnover reached USD 18.12 billion in 2018, growing 9.4 per cent year-on-year[33].

Market Trends[32]:

1. **Growing Medical Tourism:** A robust growth in the Medical Tourism industry (22-25 per cent), has resulted in rising population and life expectancy.
2. **Penetration of Healthcare Insurance:** Increased awareness campaigns by the healthcare insurance companies, combined with better products has resulted in an observed increase in FY 18 for gross direct premium income from health insurance at 25.2 per cent of overall gross direct premium income for non-life insurance segment. Health care insurance coverage have also been extended to Ayurveda and other traditional systems of the medicine.
3. **Quality and Affordability with Ease of Access:** A pool of highly qualified doctors, medical-professionals and consultants has resulted in India becoming very cost competitive in case of critical surgeries. For example, a surgery in India cost one-tenth of that in US or in other developed countries.

[32] Health and Wellness Services, India Services, Ministry of Commerce and Industry, Government of India, https://www.indiaservices.in/medical, accessed on September 26, 2019

[33] Indian Pharmacy Industry, Indian Brand Equity Foundation, https://www.ibef.org/industry/pharmaceutical-india.aspx, accessed on September 26, 2019

4. **Rise in Per Capita Healthcare Expenditure:** Income growth, easy access to world class health care facility, better awareness about personal health and hygiene, etc. have positively contributed in increasing expenditure on healthcare services.
5. **Increase in Medical Devices Market:** The medical devices market size, valued at USD 4.9 billion in FY 2017, is expected to reach USD 11 billion by FY 2022, backed by rising elderly population, growth in medical tourism and declining cost of medical services.
6. **Re-emergence of Traditional Medical Care:** The traditional (Ayurveda) market is again emerging in India and is expected to rise at a CAGR of 16 per cent over FY 2016-2021.This segment includes health remedies based on natural and herbal ingredients along with new offerings like services on diet and nutrition, yoga, herbal medicine, humor therapy and spa.

Key Initiatives and Policies in the Sector:

1 **Pradhan Mantri Jan Arogya Yojana (PMJAY)**: The Government launched PMJAY in Sep 2018, which is a centrally sponsored Scheme under Ayushman Bharat Mission. It is an umbrella of two major health initiatives, namely Health and wellness Centres and National Health Protection Scheme. The Scheme is expected to assist the government in achieving Universal Health Coverage (UHC), providing a need-based health care service to the population of the country.

2 **National Ayush Mission:** Department of AYUSH, Ministry of Health and Family Welfare has launched National AYUSH Mission (NAM) in Sep 2014 to promote AYUSH medical systems through cost effective AYUSH services, strengthening of educational systems, facilitate the enforcement of quality control of Ayurveda, Siddha and Unani & Homoeopathy (ASU&H) drugs and sustainable availability of raw-materials.

3 **Mission Indradhanush**: The Mission launched in 2014 aims to cover all those children by FY 2020 who are either unvaccinated or are partially vaccinated against vaccine preventable diseases. India's Universal Immunisation Programme (UIP) provides free vaccines against 12 life threatening diseases, to 26 million children annually.

Figure 5: Health Budget 2018-19 for NHM

4 **The 'Pharma Vision 2020':** Department of Pharmaceuticals aims to make India a major hub for end-to-end drug discovery.

5 **National Health Mission (NHM)** – As per the Union Budget FY 2018-19, USD 8.16[32] billion has been allocated to Ministry of Health and Family Welfare and USD 4.40 billion[34] for the continuation of National Health Mission

6 **National Nutrition Mission:** In order to improve the nutrition patterns amongst children, the Government of India signed a USD 200 million deal with the World Bank for 315 districts across India, under National Nutrition Mission (POSHAN Abhiyaan) in May 2018. The programme is aimed at reducing the level of stunting, under-nutrition, anemia and low birth weight babies.

[34] Indian Healthcare Industry Analysis, India Brand Equity Foundation, https://www.ibef.org/industry/healthcare-presentation, accessed on September 26, 2019

8. Electronics and IT Hardware

Market Segment:

Indian Electronics and IT Hardware market is one of the largest in the world and is expected to reach a turnover of USD 400 billion in FY 2021-22[35]. The Consumer Electronics and Appliances industry in India is expected to become the fifth largest in the world by FY 2024-25. Major sub sectors in Electronics and Hardware sector are: Electronic Component and Semiconductor Design, Consumer Electronics, Communication and Broadcasting, Computer and Peripherals and Other Electronics.

The Government and the industry have taken various initiatives, as a result of which, the electronics market has risen to USD 63.62 billion in FY 2018-19, growing at a compounded annual growth rate (CAGR) of 25 per cent, compared with a CAGR of 5.5 per cent in FY 2014-15. The Union Budget FY 2019-20 allocated USD 0.93 billion for the ministry of electronics and information technology[36].

Market Trends:

1 **Internet of Things:** Internet of Things (IoT) is beginning to grow significantly, as consumers businesses and Government have recognized the benefits of connecting inert devices to the internet. The IoT is expected to be the largest device market in the world and it is estimated that it will result in USD 1.7 trillion value addition to the global economy.

2 **Growth of Electric Vehicles:** The growth of the electric vehicle (EV) space in India, is largely dependent on setting up of EV ecosystem which encompasses all critical elements like- installation of charging infrastructure enabling faster battery charging times, higher electronics integration for infotainment, safety and security, and other applications. These technological advances are increasing the total electronics content of EVs.

3 **Growing Demand and Convergence of Technologies:** The exponential growth in consumer electronics and the increasing demand for smartphones and tablets are key growth drivers for the overall electronics market. In India, the sector is expected to touch the USD 336.80 billion market by FY 2019-20. The rise of SMAC (Social media, mobility, analytics, cloud) and the convergence of technologies is generating demand for multi skilled resources. Also, there is an increased demand for skilled workforce which can meet the demand for convergence between industrial and strategic electronics.

4 **Robotics and Automation:** The increased adoption of robotics and automation by electronic equipment companies has resulted in improvement of efficiency and productivity. The usage of smart devices like Sensors are being used and installed in various machines to access critical data for constant improving and reducing the potential breakdown.

5 **Growing Demand for Smart TVs:** The demand for smart TVs is being driven by the rising computer preferences for built-in smart functions in personal devices and increasing penetration of internet. A smart TV combines the features of televisions and computers and comprises a television set with integrated functions for internet use. The Smart TV users have direct access to streaming services such as Netflix and Amazon Prime Videos.

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[35] https://www.electronicsb2b.com/eb-specials/industry-report/indian-electronics-industry-2017-18-key-opportunities-trends/

[36] https://www.indiatoday.in/budget-2019/story/union-budget-2019-explained-in-simple-interactive-charts-major-schemes-all-sectors-ministries-1562786-2019-07-05

Key Initiatives and Policies in the Sector:

1 The Government released the draft National Policy on Electronics in Oct 2018, which has envisaged creation of a USD 400 billion electronics manufacturing industry in the country by FY 2024-25
2 The Government of India is in discussions with multiple stakeholders to further ease foreign direct investment (FDI) in defence under the automatic route to 51 per cent from the current 49 per cent, in order to give a boost to the Make in India initiative and to generate employment.
3 In FY 2017-18, the Government of India exempted 25 machine parts from basic custom duty to boost the mobile handset production in the country
4 The Ministry of Defense, Government of India, approved the "Strategic Partnership" model which will enable private companies to tie up with foreign players for manufacturing submarines, fighter jets, helicopters and armored vehicles.
5 Approval for amendments in Modified Special Incentive Package Scheme enforced in 2017, which aims towards the goal of net zero imports in electronics sector by 2020
6 The Government has launched Phased Manufacturing Program (PMP) in 2017 aimed at adding more smartphones under the Make in India initiative for further giving a push to domestic manufacturing of mobile handsets.

9. Tourism and Hospitality

Market Segment:

Indian tourism is seventh largest tourism economy and ninth largest in cultural resources and business travel globally. India has moved 13 positions ahead from 65th to 52nd rank in Tourism and Travel Competitive Index (WEF); UNWTO Tourism Barometer (2016) currently ranks India at number 40 in terms of global tourist footfalls.[37] Tourism is also a potentially large employment generator besides being a significant source of foreign exchange for the country. Foreign Exchange Earnings (FEEs) during the period January to November 2019 were USD 26.78 billion, a growth of 3.7 per cent YOY[38]..

The travel and tourism sector in India is expected to grow by 2 per cent annum and generate 52.3 million jobs by FY 2028[39].

Market Trends:

The tourism sector is witnessing some new trends that are supplementing the established trends in the sector. Some significant announcements have been made recently with respect to foreign investment in the sector[40]:

Infrastructure Development

- Advent of low budget hostels, Guest Houses and Apartment Hotels
- Growth of Boutique Hotels for luxurious experience
- Development of thematic circuits by Government: SWADESH DARSHANS
- Development/Upgradation of pilgrimage and heritage destinations

Emerging Segments

- Cruise Tourism and Cruising along rivers
- Medical Tourism to obtain healthcare
- Adventure tourism to explore or travel to remote and exotic areas
- Wellness Tourism to achieve a sense of well-being
- Travel Blogging
- Golf Tourism

Business Segments

- Meetings Incentives Conferences And Exhibitions (MICE)
- Business Travels to attend Conferences/Meetings
- Exhibitions like Auto-Expo, Tech Expo etc.
- Financial support bu Government to bring more MICE business

Support Functions

- Digitalized guest experience from booking travel packages to room service
- Financial Assistance to Government approved tourism service providers.
- 24/7 Live Chat Service and Toll Free Multi-Lingual Tourist Info-Helpline on Ministry's website

- US company Airbnb has invested USD 75 million in SoftBank backed hospitality firm Oyo in a funding round in April 2019, giving it access to Airbnb's global as well as Indian user traveller base
- Realty firm Embassy group announced in Mar 2018, an investment of USD 197.1 million to develop four new hotels in Bengaluru as part of its expansion plan in hospitality business
- Leisure Hotels Group plans to invest USD 14.6 million to add 8 properties by FY 2020-end
- Specialty Restaurants plans to invest USD 5.9 million, to open 8-12 new outlets by FY 2020 end.

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37 https://www.investindia.gov.in/sector/tourism-hospitality
38 https://www.ibef.org/industry/tourism-hospitality-india.aspx
39 https://www.investindia.gov.in/sector/tourism-hospitality
40 https://www.investindia.gov.in/sector/tourism-hospitality

Key Initiatives and Policies in the Sector:

The Indian Government has realized the country's potential in the tourism industry and has taken several steps to make India a global tourism hub:[41]

1 Introduction of e-visa facility, which has been extended to the nationals of 167 countries in FY 2018 resulting in the arrival of 2.4 million foreign tourists on e-Tourist Visa, registering a growth of 39.6 per cent over the previous year.
2 The launch of two major schemes during FY 2014-15, viz. Swadesh Darshan - Integrated Development of Theme-Based Tourist Circuits and PRASHAD Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive for development of tourism infrastructure in the country including historical places and heritage cities
3 Identification of 17 iconic sites in the country in Jul 2019, for development under Iconic Tourist Sites Development Project in collaboration with various Government bodies at Central, State and Local Administration level.
4 Identification, diversification, development and promotion of niche tourism products of the country like Cruise, Adventure, Medical, Wellness, Golf, Polo, Meetings Incentives Conferences and Exhibitions (MICE), Eco-tourism, Film Tourism, Sustainable Tourism etc. to overcome 'seasonality' challenge in tourism and to promote India as a year-round destination.
5 MoU signed with Eco Tourism Society of India (ESOI) in 2016 to educate the tourism stakeholders on importance of Sustainable and Responsible Tourism practices and to ensure and promote Sustainable and Responsible practices in the tourism industry.
6 A 24x7 toll Free Multi-Lingual Tourist information helpline on the toll-free number has been launched in 2016 in 12 languages including facilitate and assist domestic and foreign tourists in terms of information relating to Travel in India. A 24/7 live chat service interface has also been introduced on the website of the Ministry (www.incredibleindia.org)
7 'Incredible India' mobile application has also been launched on 27th of September 2018 to assists international and domestic tourists to access information about the Ministry recognized tourism services.

During the period April 2000-March 2019, the hotel and tourism sector attracted around USD 12.35 billion of FDI, basis the data released by Department for Promotion of Industry and Internal Trade (DPIIT). Besides, there are several other initiatives planned by the Government of India to give a boost to the tourism and hospitality sector of India which are as follows:[42]

1. Statue of Sardar Vallabhbhai Patel, also known as 'State of Unity', was inaugurated in October 2018. It is the highest standing statue in the world at a height of 182 metres. It is expected to boost the tourism sector in the country and help increase influx of tourists and generate employment opportunities for the local people.
2. The Government of India is planning to put in the necessary infrastructure to achieve 1 per cent share in world's international tourist arrivals by FY 2020 and 2 per cent share by FY 2025.
3. Under Budget FY 2019-20, the government allotted USD 160.78 million for development of tourist circuits under Swadesh Darshan.

[41] Ministry of Tourism Annual Report 2018-19
[42] https://www.ibef.org/industry/tourism-hospitality-india.aspx

10. Agriculture and Allied Services

Market Segment:

Indian Agriculture sector contributes 18 per cent of India's GDP and provides employment to 50 per cent of the country's workforce[43]. Major sub sectors in the Agriculture and allied services sector include: Crop Production; Horticulture; Farm Mechanism and Tractors; Nutrient Management; Dairy, Poultry and Fishery; Sericulture and others.

Over 58 per cent of the rural families depend on agriculture as their principal means of livelihood. Gross value added (GVA) by agriculture, forestry and fishing is estimated at USD 265.51 billion in FY 2019. The GVA of the agriculture and allied sector at constant FY 2011-12 prices grew at a CAGR of 2.75 per cent between FY 2012-13 and FY 2017-18. Union Budget FY 2019-20 allocated USD 19.60 billion for the Ministry of Agriculture and Farmers' Welfare, of which USD 10.52 billion is for PM-KISAN[44] signifying its criticality in the national socioeconomic context.

Market Trends:

1. **Digital Innovation:** One of the major highlights in agriculture and allied services is the introduction of innovation through technological advancement. These innovations have streamlined the policies, created necessary infrastructure to test and commercialize the innovation and created incentives for adoption of these innovations. The digital innovation in agriculture has the applicability in development of infrastructure, supply chain management and technology enablement of areas in quality, traceability, logistics and other areas of value chain.

2. **Empowering Farmer Community:** There has been continued efforts in strengthening farmer communities through greater focus on Farmer Producer Organization formation. Currently there are around 900 FPOs supported by Small Farmer Agribusiness Consortium which have mobilized ~9 lakh farmers across India.

3. **Water Management:** Agriculture requires large quantity of water and consumes nearly 60 per cent of available water resources. But despite this, less than half of the agriculture land in India is irrigated. Schemes like Paradhan Mantri Krishi Sichai Yojana was introduced to bring in more area under irrigation. Several other initiatives like watershed management, drip irrigation and water user association are playing an important role in strengthening the agriculture sector.

4. **Risk Management Strategy:** An effective climate risk mitigation strategy for effective water management, adopting to rising temperatures, facing fraught situations are on the priority list. Solutions for early warning system can play an important role in estimating and minimizing the risk due to climate change events.

5. **Agricultural Export:** Another trend that has been observed is focus on increasing the export of agricultural produce. India has the benefit of low cost labour, mostly favorable climatic conditions and low unit cost of inputs. More focus on exports sector will have positive impact on the diversification of agricultural operations, generate more employment, and increase India's share in overall international trade.

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[43] https://www.prsindia.org/policy/discussion-papers/state-agriculture-india
[44] https://economictimes.indiatimes.com/news/economy/agriculture/govt-raises-budget-allocation-to-agri-ministry-by-78-pc-in-fy20/articleshow/70092644.cms?from=mdr

6 **ICT in Agriculture:** Central, state governments and private organizations have taken ICT measures for agriculture extension which include ITC e-choupal, Kisan Kerala, Aaqua, Rice knowledge management portal. IFFCO Agri portal, VKCs, Mahindra Kisan Mitra, etc.

Key Initiatives and Policies in the Sector:

1. 100 per cent FDI legislation was made effective in FY 2011 and is applicable to the development and production of seeds and planting material, floriculture, horticulture, cultivation of vegetables, mushrooms, animal husbandry under controlled conditions.
2. The Government has set Minimum Support Prices in line with the recommendations of Commission of Agricultural Costs and Prices.
3. The government launched the Pradhan Mantri Kisan Samman Nidhi Yojana and transferred USD 248.48 million to the bank accounts of more than 10 million beneficiaries in February 2019
4. The cabinet committee on Economic Affairs approved USD 820.41 million assistance package for the sugar industry in India
5. The government launched Transport and Marketing Assistance (TMA) scheme to provide financial assistance for transport and marketing of agriculture products to boost agriculture exports
6. The Agriculture Export Policy was approved in December 2018. The new policy aims to increase India's agricultural exports to USD 60 billion by FY 2022
7. The Government has sanctioned USD 306.29 million in 2017 for computerization of Primary Agricultural Credit Society (PACS) to ensure cooperatives are benefitted through digital technology
8. Launch of AGRI-UDAAN program to mentor star- ups and to enable them to connect with potential investors
9. ICRISAT and Microsoft together developed a computer-based, sowing date application which uses cloud based predictive analytics to advise farmers on best time for sowing of crops depending on weather conditions, soil and other indications. It uses Microsoft Cortana Intelligence Suite including machine learning and the users have access to an instant overview of the factors that determine a healthy cropping.

11. Textile, Apparel, Handicrafts and Handloom

Market Segment:

Indian textile and apparel industry, one of the largest in the world, comprises 2 per cent of the country's GDP, contributes to 7 per cent of industrial output in terms of value, to 15 per cent of country's export earnings. During FY 2018 the industry stood at USD 39.2 billion. The market size of India's textile and apparel recorded USD 108.5 billion in FY 2015 and is expected to reach USD 226 billion by FY 2023, growing at a CAGR of 8.7 per cent between FY 2009 and FY 2023.[45] The industry currently possesses a share of 4.7 per cent in global market for textiles and clothing.

The major segments of the industry include Organized Textile Mills, Cotton segment, the Man-Made Fibre and Filament Yarn Industry, Wool and Woollen Textiles, Sericulture and Silk Textiles, Power looms, Jute and Jute Textiles, Apparel and Garments, Technical Textiles, Handicraft and Handloom.

- The exports of Handicraft sector are expected to nearly double to USD 2.7 billion in FY 2016 and further increase to USD 3.8 billion by FY 2021[46]. Whereas, Handloom exports stood at USD 360.2 million in FY 2016.
- The total market of Apparel and Garments sector is USD 55 Billion of which ~USD 35 billion consists of domestic market and USD 20 billion worth of exports takes place from the country[47]. Out of USD 20 billion, the Apparel counts for USD 15 billion and Made-Ups and Home Furnishing exports worth USD 5 billion.
- Technical textiles which is still in its infancy, is also one of the fastest growing segments. Currently 9 per cent of the world's total consumption of technical textiles is met by the Indian textile industry and it has the potential to reach USD 50 billion market by FY 2025.[48]

Market Trends:

The textiles sector has witnessed a spurt in investment during the last five years. The industry (including dyed and printed) attracted Foreign Direct Investment (FDI) worth USD 3.12 billion during April 2000 to March 2018.

1 Economic growth, rising per capita disposable income, growing consumerism, increasing retail penetration, urbanisation has given a major boost to the expansion of textile sector and increase in major international players in India.[49]

2 At the international front, exports from countries such as Bangladesh and Vietnam have been growing rapidly. Bangladesh is the second largest readymade garments/apparels (RMG) exporter globally.

3 Export of handloom products has been on a continuous decline owing to a variety of factors such as demand for cheaper merchandise in the international markets, changing consumer preferences, lack of awareness about market trends among the weavers, lack of novel designs, outdated looms, yarn not of required count and poor quality of yarn and declining number of weavers.

4 Fueled by demand for ethically and ecologically conscious merchandise and increasing substantial supply of giftware products of handicraft the demand of handicraft products is increasing in many

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45 https://www.indiatoday.in/education-today/gk-current-affairs/story/textile-industry-in-india-latest-facts-figures-government-schemes-1353406-2018-10-01

46 Export promotion council for handicrafts; Handloom export promotion council

47 Primary meeting with Apparel, Made-ups and Home Furnishing Sector Skill Council

48 https://www.investindia.gov.in/sector/textiles-garments

49 http://www.careratings.com/upload/NewsFiles/Studies/Indianper cent20Readyper cent20Madeper cent20Garmentsper cent20(Apparel)per cent20Industry.pdf

countries like Germany, France, Italy and Switzerland etc. The global handicraft market was forecasted to grow at a tremendous rate of 12 per cent between FY 2015 and 2019[50]

5 The Indian handicraft sector employs a huge workforce, however its contribution to the global handicrafts industry is only 2 per cent, owing to use of primitive production methods, innovation and technology up-gradation together with insufficient market information on export trends, opportunities and prices, scarcity of raw materials, lack of adequate finance and growing competition from mill and factory-made products etc.[51]

6 There is growing demand for handmade sustainable clothing from various European countries as evident from the tie up between IKEA and Rangasutra, and big brands such as Hermes working with artisans from Indian villages to create unique apparels etc.

Key Government Initiatives and Policies:

The Indian Government has come up with several export promotion policies for the textiles sector. It has also allowed 100 per cent FDI in the Indian textiles sector under the automatic route. Other key initiatives taken up by the Government in the sector include:

1. Integrated Skill Development Scheme (ISDS) launched by Ministry of Textile, initially as a pilot in 2011 and then a revamped version in 2014 with an aim to train 15 lakh people till 2020. This scheme covers all sub-sectors of the textile industry, e.g. textiles, apparel, handicrafts and handlooms[52].
2. A special package has been approved by the Union Cabinet, on December 7, 2016 with a budget of USD 0.88 billion for the apparel package in order to create large scale direct and indirect employment of ~11 lakh jobs over the next 3 years in the made-ups sector[53].
3. The Textile Ministry of India has set up 21 ready-made garment manufacturing units in seven states, Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Mizoram and Tripura for development and modernization of Indian Textile Sector (USD 106.58 million).[54]
4. To promote handloom products, Government started promotion of its 'India Handloom' initiative on social media such as Facebook, Twitter and Instagram with a view to connect with customers, especially youth.
5. Under Scheme for Integrated Textile Parks (SITP), 66 textile parks have been sanctioned which are at different stages of implementation expected to employ 3,96,000 people and attract investment of USD 41 billion[55].
6. National Handloom Development Program and Comprehensive Handloom Cluster Development Scheme have been launched in FY 2018 and are under implementation with an outlay of more than USD 7.02 million.
7. Some other newly launched schemes are Handicraft Design and Technology Upgradation Scheme, Handicraft Human Resource Development, Handicraft Research and Development, Marketing Support and Services and Export Promotion Scheme etc.
8. The government is also focusing on development of technical textiles in the country, it set up Eleven Focus Incubation Centres (FICs) (budget USD 0.83 millions), and demonstration centres set up in the North East Region and other areas[56].

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[50] https://www.autumnfair.com/news/global-handicraft-rise-in-demand-for-artisan-products
[51] https://www.business-standard.com/article/news-cm/indian-handicrafts-exports-may-cross-rs-24k-crore-mark-by-2020-study-115062900334_1.html
[52] Ministry of Textiles, Year End Review 2016
[53] Ministry of Textiles, Year End Review 2016 (1 USD = INR 67.5254)
[54] https://economictimes.indiatimes.com/industry/cons-products/garments-/-textiles/hike-in-rosl-funds-to-boost-textile-export-smriti-irani/articleshow/62901680.cms?from=mdr
[55] Ministry of Textile: Annual Report 2017-18 (1USD = 65.13)
[56] https://www.autumnfair.com/news/global-handicraft-rise-in-demand-for-artisan-products

9 Under the Pahchan initiative, the government with the objective of standardize the Indian Handicrafts has registered approximately 22.85 lakhs artisans and identified 35 crafts as endangered and 92 crafts have been registered under Geographical Indication Act[57]
10 Government of India increased incentive rates under the Merchandise Export from India scheme (MEIS) to 7 per cent from 5 per cent for handicraft items which is aimed at assisting exporters to recover the input costs which are involved in the production of handicrafts, resulting in competitive pricing and boosting exports.[58]
11 The India Handmade Bazaar portal was established in FY 2017, it has 302 artisans registered on the portal during the beginning of the year.
12 Sector Skill Councils were formed for textile, handicraft and handloom sector jointly with Export Promotion Council for Handicrafts (EPCH) and Carpets Export Promotion Council (CEPC).
13 Indian Textile and Handloom sector has 90 approved qualification packs with 258 National Occupational Standards (NOS) and Indian Handicrafts and Carpets sector has 127 approved qualification packs with 227 National Occupational Standards (NOS) which are aligned to National Skills Qualifications Framework (NSQF).

Initiatives by Private Players:

The sector has seen a good traction from the private players with some of the major investments been done by them are elaborated below[59]:

1 Trident Group has entered into a partnership with French firm Lagardere Active Group in 2017.The partnership was aimed towards launching a premium range of home textiles under the reputed brand name of French lifestyle brand Elle Décor in India.
2 Snapdeal has partnered with India Post to jointly work on bringing thousands of weavers and artisans from Varanasi through its website. Through this partnership, Snapdeal and India Post target to empower local artisans, small and medium entrepreneurs to sustain their livelihood by providing a platform to popularise their indigenous products.

[57] http://pib.nic.in/PressReleaseIframePage.aspx?PRID=1558445
[58] https://www.ibef.org/exports/handicrafts-industry-india.aspx
[59] http://indiainbusiness.nic.in/newdesign/index.php?param=industryservices_landing/351/1

12. Beauty and Wellness

Market Segment:

The beauty and wellness industry in India have come long way from its nascent unstructured beginning in the early 1990s to a wider ecosystem today.

According to NSDC and KPMG report (2017) the estimated market size of the global beauty and wellness industry is around USD 1.4 trillion with a CAGR of 15 per cent over the last five years. India figures in the five top beauty and wellness markets of the world and has the potential to even become the top 'Wellness' destination for the global travelers.

The major sub segments of BPC industry are the beauty care, nutrition care, fitness centres, alternative treatments, therapy and rejuvenation.

Market Trends:

1 Franchisee model is allowing companies to rapidly expand their network without increased capital expenditures and drive deeper market penetration using easily replicable models.
2 The attractive characteristics like high growth prospects and expansion opportunities within the wellness industry have attracted several new entrants (global as well as domestic), and accelerated expansion plans of existing players.
3 Venture capital and private equity funding deals in the wellness sector has increased over the last few years.
4 A multi-brand strategy to target disparate customer segments along with a presence across a wide range of categories have helped companies increase penetration into existing markets as well as drive entry into new markets.
5 Players are increasingly investing in consumer education and increasing the visibility of their wellness offerings by conducting health camps and offering free health check-ups and through social media.

- ✓ *Shift towards mental and physical well-being through use of natural, organic, anti-fatigue, anti-pollution, anti-ageing products.*
- ✓ *Increased adoption of men's grooming products.*
- ✓ *Higher spending on holistic bridal solutions such as year-long skin care regimes.*
- ✓ *Increasing use of beauty devices and technology infused products and services.*
- ✓ *Consumers opting for at-home services, online buying.*
- ✓ *Heightened sense of individualism in purchase and choice among Millennials.*
- ✓ *Interest and willingness to trade-up, increased use, bigger repertoire of products.*
- ✓ *Growing importance of peer feedback and product reviews in purchase decisions.*

The Spa Association of India estimates that the spa industry is currently valued at around USD 1.54 billion and will continue to grow at a fast pace. It is estimated that the salon and spa business together account for 31 per cent of the total size of the beauty and wellness market.

Key Initiatives and Policies in the Sector:

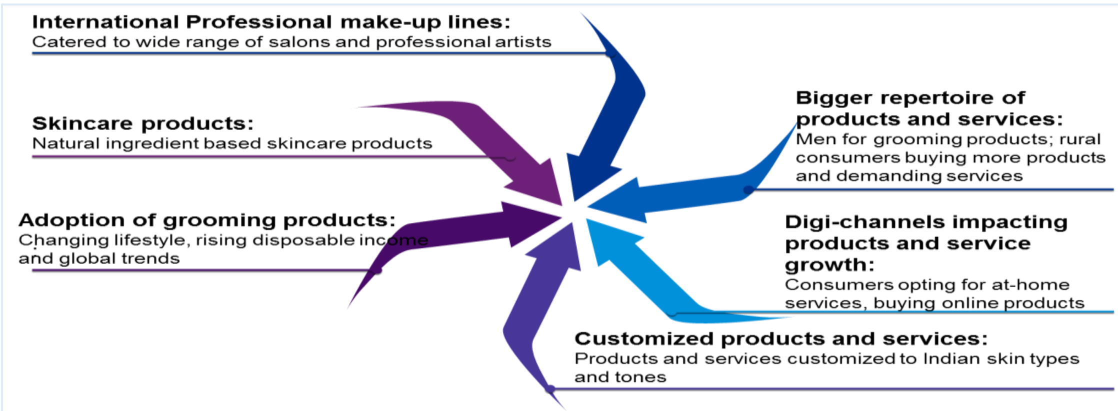
1 Government's consistent efforts to promote wellness have led to a resurgence of interest in traditional medicinal and health practices. In November 2014, the Department of Indian system of medicine and Homoeopathy (ISM&H) was elevated to an independent ministry, AYUSH (Ayurveda, Yoga, Unani, Siddha and Homoeopathy).[60]
2 International Day of Yoga observed world over on June 21 as proposed by Government of India.

[60] http://ayush.gov.in/

3 The Ministry of AYUSH recognized the huge demand for Yoga experts at national and international level and identified Quality Council of India to develop a Voluntary Scheme for Evaluation and Certification of Yoga Professionals. The focus of the Scheme for Voluntary Certification of Yoga Professional, as it is being called, is to certify the competence of Yoga Professionals who provide Yoga lessons/classes.[61]

4 Capacity Building: The Beauty and Wellness Sector Skill Council (B&WSSC) was formed with an aim to benchmark Indian beauty and wellness education with international standards and support the creation skilled manpower in the country.

Figure 6: Key initiatives of Indian BPC sector in last three years



[61] http://yogacertification.qci.org.in/

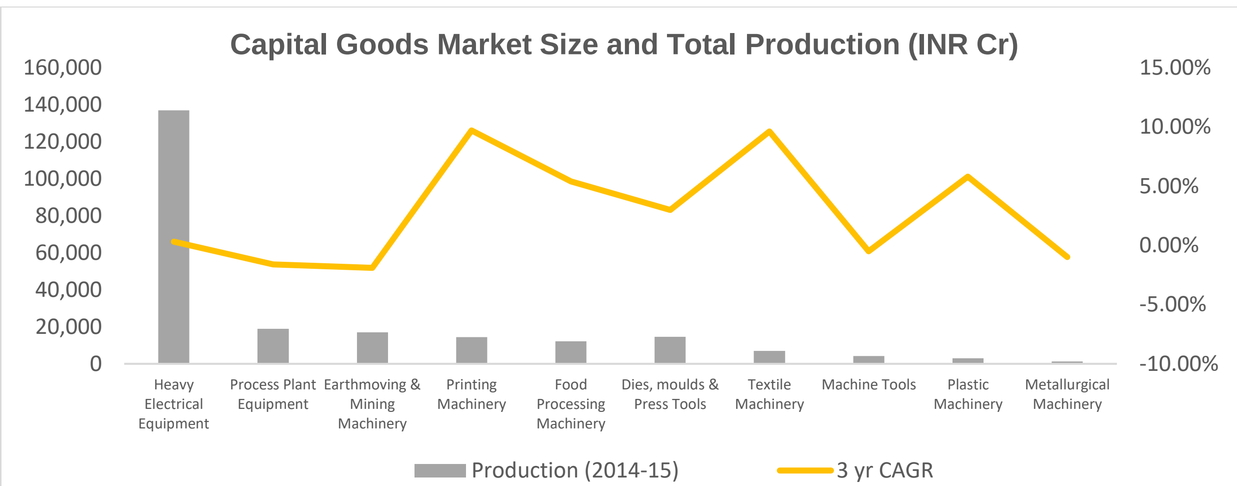
13. Capital Goods

Market segment:

Capital Goods consists of products that are used in the production of other goods. Their production and consumption reflect trends happening in other industries and they form the backbone that allows a country to industrialize. The performance of the capital goods sector is therefore heavily dependent on the end user of its products and services namely the manufacturing sector. There are 10 subcategories which comprise the capital goods sector namely Machine tools, Power and electrical equipment, Earthmoving, mining and construction equipment, Material handling and lifting equipment, Process and plant machinery, Light engineering goods, Textile machinery, Plastic, paper and rubber machinery, Agricultural machinery.

From FY 2012 to 2019, a CAGR of 4.54 per cent is seen in the manufacturing sector as can be evidenced by the gross value added to the manufacturing sector of USD 386 billion in FY 2018[62]. Correspondingly, a CAGR of 8 per cent is seen in the capital goods sector from FY 2012 to 2018 when the sector was valued at USD 42.44 billion with targets of USD 98.24 billion by FY 2022[63]. The sector is largely dominated by contribution from the heavy electrical equipment sub-sector. The Government of India is targeting to increase the share of the manufacturing sector to the GDP to 25 per cent by FY 2022, from 16 per cent, and to create 100 million new jobs by FY 2022[64] thereby boosting employability and fulfilling its stated objective of making India a manufacturing hub.

Figure 7: Capital Goods Market size and Total Production (INR Crore)



Market Trends:

The growth of the capital goods sector is driven by several factors. Some of the key trends driving the growth of the sector are listed below:

1 **Rapid increase in infrastructure investment and industrial production to fuel further growth**

62 IBEF 2019
63 Investindia.gov.in
64 LiveMint.com

This is dependent on a stable macro-economic outlook for India. Credit growth and IIP-based capital goods index both show strong YoY resurgence indicating an improving business cycle. Government's focus on smart cities, smart transportation and other smart infra projects are expected to further give this sector a boost. This is evident from the rising demand for electrical and construction equipment sector and the engineering sector which is driven by capacity creation in sectors such as infrastructure, power, mining, oil and gas, refinery, steel, automotive and consumer durables.[65]

2 **Changing Technology:**

Low current levels of technology indicate limited ability in fundamental research on materials and components and low absorption of product technologies. As per Economic survey 2017-18, India ranks 30th worldwide on research intensity, with 0.7 per cent of GDP spent in the form of R&D. This is low compared to advanced countries like South Korea (3.6 per cent) and Japan (3.4 per cent).Slow progress on the technological front has adversely impacted India's manufacturing competitiveness, supply base and value chain capabilities.[66] Manufacturing technologies that alter systems of production, management, and governance in the manufacturing sector are on the rise and will change the working in the capital goods sector.

3 **Highly fragmented sector with large number of MSMEs:**

The capital goods market is fragmented with majority of operational units in the Small and Medium Enterprise (SME) sector, beyond few large players. These cater to small segments of a sub-sector, often serving domestic demand only and are significantly challenged vis-à-vis large foreign competitors due to low operating scale.[67]

Key Initiatives and Policy in the Sector:

The rapid growth of the sector in India is supported by the rising demand for infrastructure, robust and facilitative policy support, encouragement to exports, and competitive players. Some of the key initiatives undertaken by the government to boost capital goods sector are listed below[68]:

1 De-licensed engineering sector;100 per cent FDI permitted.
2 Foreign technology agreements are allowed under the automatic route since 2003.
3 Basic customs duty reduced from 10 per cent to 5 per cent on forged steel rings used in wind operated electricity generators since July 2014.
4 Tariffs on capital goods and equipment have been lowered to nil or 5 per cent in general, which is part of the EPCG scheme (2015-2020).
5 Applicable tax incentives announced as part of the budget FY 15 such as 15 per cent exemption on tax to manufacturing companies that invest more than USD18.4 million in plant and machinery.
6 The government approved a significant number of SEZs across the country for the engineering sector since the announcement of the SEZ act in 2005.
7 Delhi Mumbai Industrial Corridor (DMIC) announced in 2011 is being developed across 7 states; it is expected to bolster the sector
8 Some of the key highlights of the budget for the year FY 2019-20[69]:
    - Credit Guarantee Enhancement Corporation to be set up in FY 2019-2020
    - USD 701.66 billion investment needed in Railway Infrastructure during FY 2018-30.

[65] EconomicTImes.com
[66] EconomicTImes.IndiaTimes.com
[67] FInancialExpress.com
[68] MakeInIndia.com
[69] PIB Report

- 1,25,000 kilometres of road length to be upgraded over the next five years under PMGSY III with an estimated cost of USD 11.26 billion
- Faster Adoption and Manufacturing of Electric (and Hybrid) Vehicles to provide subsidy for introduction of over 1000 e-vehicles with Charging Infrastructure in the public transport (buses, taxis, 3-wheelers) in 11 cities
- Establishment of Centres of Excellence (CoE) at and 9 Common Engineering Facility Centres (CEFC) to provide value added services to manufacturers are expected to be substantially completed against the budget allocated in FY 2018-19

14. Transportation and Logistics

Market segment:

The logistics sector primarily comprises of freight and transportation via road, rail, air and water, as well as ancillary sectors such as inventory stocks and warehousing. With 60 per cent of the total freight traffic, road transport dominates the industry, constituting about. The logistics sector is currently estimated to be around USD 160 billion. The sector is expected to become worth USD 215 billion by FY 2020[70]. India is currently ranked 35th in the World Bank's Logistics Performance Index (LPI)[71], despite an improvement from the 54th position held previously as per the Economic Survey FY 2017-18. This makes it imperative to implement the necessary reforms to enable improvement in trade logistics operations to come to par with the developed countries.

Market Trends:

Indian logistics industry is an upcoming sector and is seeing robust growth. The observed growth of logistics is two sided – led by demand and supply.

The demand led growth is attributed to the strong economic recovery and benefits from implementation of GST. According to the rating agency ICRA, post GST implementation the savings in terms of truck turnaround time has been approximately 18-20 per cent. The outsourcing of non-core activities like warehousing and associated activities to integrated players is leading to strengthening the organised players, which in turn is good for the industry in long term. The picking of industrial consumption is another driver on the demand led growth of the logistics industry in India.

The supply led growth drivers include improvement in logistics infrastructure, integrated logistics and birth of numerous logistics start-ups, especially tech led start-ups. For example, startups like Rivigo are using IoT for real time data collection of data around truck's fuels, engine oil temperature, brake oil pressure and more, to improve services and increase transparency in India's truck industry. These early stage ventures are not only attracting heavy investments, but they also have the potential to make export procedures hassle-free by reducing unnecessary paperwork, in turn reducing delays in delivery. According to an estimate, equipping the sector with the latest digital technologies and automation in operations would lead to a 10 per cent decrease in indirect logistics costs and can be the key to determining our position in the global logistics ranking.

Another key trend is the preference for large warehouses that allows better automation process. According to the CBRE report, the Indian market for warehouse automation is estimated to grow by 10-12 per cent to USD 3.49 billion by the FY 2020. Additionally, warehousing is emerging as an attractive investment in the Indian logistics sector. Some of key investors include Ascendas-Singbridge, Morgan Stanley, and Warburg Pincus, beside others. The investment growth in the sector is leading to development of new and better warehousing facilities. According to the real estate consultancy CBRE's report titled '2018 Asia Pacific Real Estate Market Outlook' Delhi-NCR, Mumbai and Bangalore dominated the warehousing space demand with 50 per cent share. Although, the smaller cities have been on growth spurt too with the share of Hyderabad, Chennai, Kolkata and Pune in overall transacted space went up to 49 per cent in FY 2017 as against 25 per cent in FY 2016.

Key Initiatives and Policy in the Sector:

[70] NITI Aayog, 'Indian Logistics Sector: On the Path of Transformation
[71] https://lpi.worldbank.org/international/global/2018

Recognizing the importance of the sector, the government has invested in critical initiatives to help companies leverage their economies of scale and provide integrated logistics networks that are cost effective. Some of the key initiatives are presented below: -

1 **Dedicated freight corridors**: The government has notified five major industrial corridors – **Delhi-Mumbai Industrial Corridor (DMIC)**, Amritsar-Kolkata Industrial Corridor (AKIC), Chennai-Bengaluru Industrial Corridor (CBIC), Visakhapatnam-Chennai Industrial Corridor (VCIC) and Bengaluru- Mumbai Economic Corridor (BMEC), for the faster movement of freight. These corridors are spread across 15 states in India.

2 **Logistics Parks***:* These parks serve as centres for freight aggregation and distribution hubs, storage, warehousing, and multi-modal transportation. The government has announced the development of 35 such parks to cut transportation cost and enable swifter freight movement on higher sized trucks and rails between hubs.

3 **Sagarmala:** The Sagarmala project aims at doubling the share of seaways in the transport mix over the next decade by executing multiple projects related to the expansion and modernization of various ports.

4 **Development of National Logistics Portal:** A National Logistics Portal (NLP) was announced in August 2018 by the Ministry of Commerce and Industry to ensure ease of trading in the international and domestic markets. The portal will link all the stakeholders of EXIM, domestic trade and movement and all trade activities on a single platform. NLP will be implemented in three stages: 1) development of e-marketplace; 2) single window clearance for approvals from over 80 authorities; and 3) integration of financial services.

5 **Regulatory boost:** Key reform measures and policy interventions like the unveiling of the Goods and Services Tax, (GST), relaxed FDI regulations and granting of infra status has boosted the core competencies of the Indian logistics industry. GST laid the foundation for the setting up of large format multi-modal logistics parks along key consumption and industrial centres which can function as freight aggregation and distribution hubs.

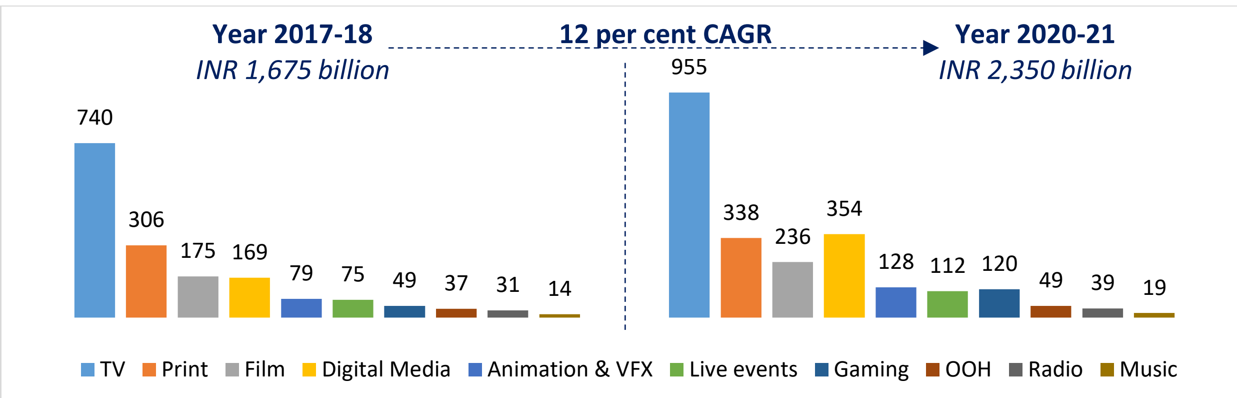
15. Media and Entertainment

Market Segment:

The Media and Entertainment (M&E) sector in India is mainly categorized in sub-sectors like Film, Television, Print, Radio, Animation, Gaming, Digital, OOH, Live events and Music[72]. The M&E industry of India comprises of 900 satellite TV channels, 6,000 multi-system operators, around 60,000 local cable operators, 7 DTH operators, 17,000 newspapers, 570 million internet subscribers (world's second highest after China), 197 million TV households (world's second largest TV market in terms of number of subscribers)[73].

The market size of M&E sector is estimated to reach to ~USD 33 billion by FY2020-21 from ~USD 24 billion in FY 2017-18 with a Compounded Annual Growth Rate (CAGR) of ~12 per cent. In FY 2017-18 major contribution to the market size was made by Television sub-sector i.e. 44 per cent, followed by Print with 18 per cent, Digital and Film with 10 per cent each and rest 17 per cent by Animation & VFX, Live events, Gaming, Out-of-Home (OOH), Radio and Music[74].

Figure 8: Estimated market size of M&E sector (in billion)



Source: KPMG in India analysis; FICCI report, India's M&E sector, March 2019

Compared to the other sub sectors, the Gaming sector has witnessed the highest double digit growth of 63 per cent in 2017-18 over previous year i.e. 2016-17 followed by Digital Media (42 per cent), Animation and VFX (18 per cent), Live events (15 per cent), Film and Television (12 per cent each), other sub sectors namely Print, OOH, Radio and Music witnessed growth rate of less than 10 per cent.

Market Trends:

The key trends boosting M&E sector are mentioned below[75]:

1 Film industry is growing with the increase in diverse content and audiences as the global box office and users for digital platform and big screens continues to grow.
2 Digital media sub-sector is experiencing shift towards 'Content access' from 'Content ownership' due to growing demand for convenience and personalization of users.

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[72] India's Media and Entertainment sector, March 2019, FICCI; accessed on May 24, 2019
[73] India Services, Media and Entertainment Services, Ministry of Commerce and Industry, Government of India, https://www.indiaservices.in/audio; Media Sector, Invest India, https://www.investindia.gov.in/sector/media; accessed on May 24, 2019
[74] India's Media and Entertainment sector, March 2019, FICCI; accessed on May 24, 2019
[75] India's Media and Entertainment sector, March 2019, FICCI; accessed on May 24, 2019

3 Investments in Animation and VFX is increasing due to launch of new government schemes and incentives; increasing content for OTT platform, films, television, etc.
4 Growth in Gaming sector is driven by increase in presence of international gaming companies in India coupled with Investments in gaming hardware and software specially in AR/ VR technology.

There are some advanced technologies such as Artificial Intelligence and Machine Learning, Blockchain, Robotics which have recently been introduced to improve the overall growth in M&E sector. Some of the use cases/ benefits of key emerging technologies in M&E sector are illustrated below[72]:

Figure 9: Illustrative use cases of Blockchain in Indian M&E sector

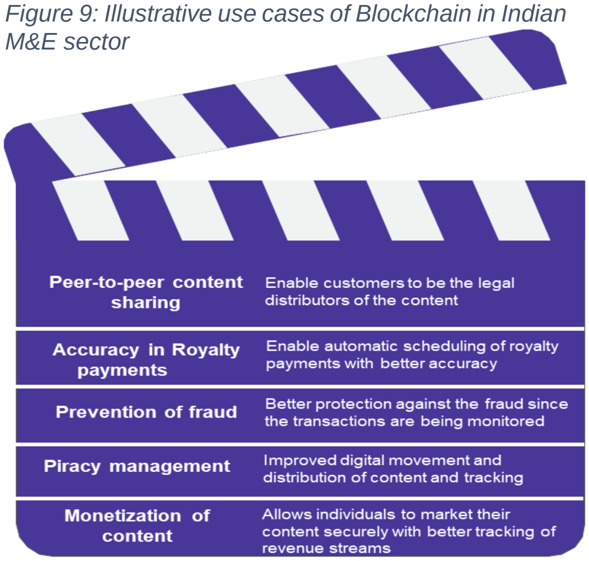
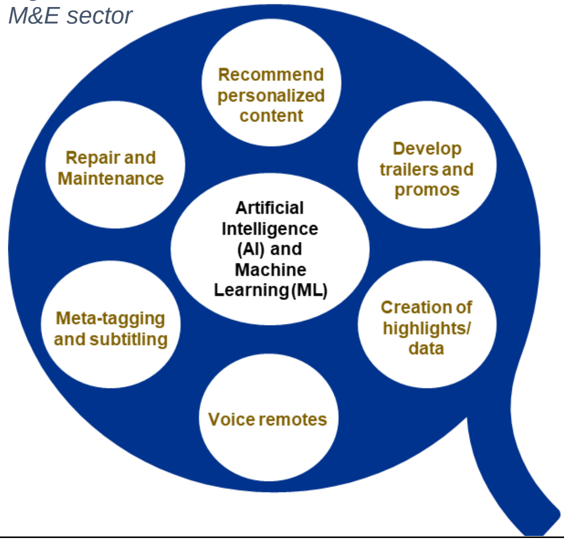


Figure 10: Illustrative use cases of AI/ ML in Indian M&E sector



Source: KPMG in India analysis; FICCI report, India's M&E sector, March 2019

Key Initiatives and Policies in the Sector:

The rapid growth of M&E sector in India is backed by the increasing digitization, internet and mobile users, income, policies, schemes and initiatives. Some of the key initiatives undertaken by the Government to boost M&E sector are listed below:
1 100 per cent FDI is allowed through automatic route in services such as Teleports, DTH, Cable networks, Mobile TV and headend-in-the-sky broadcasting, up-linking of non-news and current affairs channels etc.[76]
2 Audio-Visual co-production deal is signed between India and Canada to encourage producers from both countries to exchange expertise and knowledge[7277]
3 Ministry of Information and Broadcasting (MoIB) is providing 90 per cent subsidy for North East states and 75 per cent subsidy for other states for establishing Community Radio Stations[78]
4 MoIB is in the process of setting up Film and Television Institute in Arunachal Pradesh and a National Centre of Excellence in Animation, Visual Effects (VFX), Gaming and Comics industry.
5 'Single Window Clearance' i.e. Film Facilitation Office (FFO) is set up to assist film producers with the process of obtaining required permissions, information on shooting locales, facilities available for production/ post-production etc.[79]

[76] India's Media and Entertainment sector, March 2019, FICCI; accessed on May 24, 2019
[77] India's Media and Entertainment sector, March 2019, FICCI; accessed on May 24, 2019
[78] Press Information Bureau, Ministry of Information and Broadcasting, Government of India, https://www.investindia.gov.in/sector/media; accessed on May 24, 2019
[79] Press Information Bureau, Ministry of Information and Broadcasting, Government of India, https://www.investindia.gov.in/sector/media; accessed on May 24, 2019

6 Formation of Media and Entertainment Skill Council (MESC) to create a robust and vibrant eco-system for quality vocational education and skill development. It has a mandate to contribute 1.2 million skilled workforces by FY 2021-22.

16. Security

Market Segment:

The Security industry in India was valued at USD 8 billion and is expected to become USD 14 billion industry by FY 2020[80]. It is classified into 2 segments – Services and Systems. Services segment entails provision of manned security services whereas Systems covers electronic security systems and solutions and cash services and others (Investigation Services).[81] The manned security domain, accounts for 70- 80 per cent of the market share while the cash while the electronic services accounts for the remaining 20- 25 per cent.

Market Trends:

1 With the initiatives like Smart Cities, Digital India, Start Up India and Make in India, the demand with respect to job opportunities for the private security services sector is expected to increase.
2 It is forecasted the sector would require 15.58 million security guards by FY 2022[82] implying need for additional employment for 8.48 million people over the period FY 2016-22.
3 Police to population ratio is lower for India i.e. 1.39 per 1,000 as compared the global desired number of 3 per 1,000[83]. This implies that the number of police forces is not meeting the increasing demand for security services henceforth, private security services will stay intact
4 Developed markets are focusing more on electronic security services, especially countries such as, US, Canada, much of West Europe, Japan and South Korea[84]
5 Adoption of advanced technologies such as, Artificial Intelligence, Machine or Deep learning, embedding of cloud computing, installation of smart technology systems is having huge impact on the security systems[85]
6 With the evolving digital landscape, cybersecurity has become the focus in every country. Organizations are focusing on data security-infrastructure and endpoint security
7 Rapid expansion of drones and robots for security purpose, especially for event security drones, have become the preferred choice for mitigating security risks.[86]

Key Initiatives and Policies in the Sector:

1 The Private Security Agency (Regulation) Act was enacted in 2005, which empowered the respective State Governments to supervise the operations of Private Security Agencies.
2 The Private Detectives Agencies (Regulation) Bill, 2007, provides for the regulation of private detective agencies through the granting of licences and specifies parameters within which the agencies shall operate.
3 National Cyber Security Policy[87] was launched in 2013, facilitates creation of a secure computing environment enabling adequate trust and confidence in electronic transactions and guiding stakeholders' actions for protection of cyberspace.
4 Foreign Direct Investment up to 49 per cent through the automatic route and 74 per cent through the Government approval route is allowed

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[80] Indian Private Security Industry: Preparing for the next leap, FICCI report
[81] Private Security Services in India, FICCI report, 2015
[82] Primary discussion with Security Sector Skill Development Council (SSSDC)
[83] Assessing and Framing Requirements for Labour Market Information System, 2015
[84] Private Security Services in India, FICCI report, 2015
[85] https://www.businesswire.com/news/home/20180717005856/en/Global-Private-Security-Services-Market-2018-2022-Increasing
[86] https://www.marketwatch.com/press-release/manned-security-services-market-2019-global-trends-size-segments-emerging-technologies-and-industry-growth-by-forecast-to-2025-2019-02-05
[87] http://kenes-exhibitions.com/cybersecurity/blog/indias-national-cyber-security-policy-review/

5 Re-categorization of workers in private security under the Minimum Wages Act and modification in their minimum rate of daily pay has been done. Security guards without arms have been re-categorized as ‘skilled’, and security guards with arms and security supervisors have been categorized as ‘highly skilled

6 The Central Government has also revised the minimum wage payable to employees of the ‘watch and ward’ sector.

17. Mining

Market segment:

The mining sector in India is one of the core sectors and the backbone of the Indian economy. It not only contributes to GDP, but also act as a catalyst for the growth of other core industries like power, steel, cement, etc., which are critical for the overall development of the economy. The market segments and the constituents are presented below:

Figure 11: Market segments and constituents of Mining Sector

Iron and Steel- Hot rolled parallel flange beams and columns rails, plates, coils, wire rods and continuously cast products such as billets, blooms, beam, blank, rounds and slab and metallics and ferro alloy

Coal- Coal market consists of primary coal (anthracite, bituminous and lignite)

Aluminum- Aluminum segment includes primary aluminium, aluminium extrusions, aluminum rolled products, alumina chemicals

Bauxite- Bauxites are sub-divided into 2 basic types based on the processing methods - Tropical bauxite and European bauxite

Base Metals- Base metal market consists of lead, zinc, copper, nickel and tin

Precious Metals and Minerals- Precious metals market includes gold, silver, platinum, palladium, rhodium and diamond

India is the 3rd largest producer of coal. Coal production in the country stood at 688.8 million tons in FY 2018. It stood at 576.00 million tons between April 2018 to March 2019. India ranks 4th in terms of iron ore production globally. In FY 2018, production of iron ore stood at 210 million tons. India has around 8 per cent of world's deposits of iron ore. India became the world second largest crude steel producer in FY 2018 with output 106.5 million tons. According to Ministry of Mines, India has the 7th largest bauxite reserves- around 2,908.85 million tons in FY 2017. Aluminum production stood at 1.33 million metric tons during Apr-Aug 2018 and is forecasted to grow to 3.33 million tons in FY 2020.[88]

Market Trends:

The key trends driving the growth of the sector are listed below: -

1 **Captive Mining for Coal-** Implementation of schemes encouraging captive mining for coal, wherein companies are permitted to set up coal washeries and for specified end uses, including the setting up of power plants, fertilizers and steel units
2 **Longer duration leases-** In the last few years, India has seen a significant growth in minerals with the government granting leases for longer durations of 20 to 30 years.
3 **Focus on Domestic Markets-** The demand for metal and metal products is rising in the domestic market with India being a net importer in the metals segment

[88] https://www.ibef.org/industry/metals-and-mining.aspx

4 **Overseas Ventures-** In search of greater mineral opportunities, an increasing number of Indian mining companies are venturing overseas in a bid to secure stable, long-term supplies of minerals especially in the areas of coal and iron ore. For example, GVK is developing two coal mines viz. Alpha coal mine and Kevin's Corner coal mine jointly with Hancock Prospecting.

Key Initiatives and Policies in the Sector:

1. The Ministry of Steel envisaging the increase in the production capacity of steel to 300 million tonnes by 2030-31 from 134.6 million tonnes in 2017-2018, providing new opportunities for growth and investment in the sector.
2. The FDI caps in the mining and exploration of metal and non-metal ores have been increased to 100 per cent under the automatic route.
3. National Mineral Policy 2019 launched for transparency, better regulation and enforcement, balanced social and economic growth into the sector.
4. In July 2018, Union Minister of Coal, Railways, Finance & Corporate Affairs launched a mobile application 'Khan Prahari' and Coal Mine Surveillance & Management System (CMSMS) developed by Central Mine Planning and Design Institute (CMPDI).

18. Plumbing

Market Segment:

The Plumbing industry in India is mainly categorized in three segments - Manufacturers of Plumbing related products, Plumbing Consultants, and Plumbers and Contractors in the Construction Industry. The plumbing industry is driven technically by Public Health and Environment Requirements arising from the water industry and need for proper sanitation. However, the services of plumbing sector now extend to other sectors as well, viz:

- Water Supply
- Sanitation and Drainage
- Water Treatment
- Fire and Safety
- Water Storage Both at Industrial Level and Domestic Level
- Gas and Pipeline
- Urban Irrigation
- Heating, Cooling and Sanitation

The size of plumbing industry is directly proportional to that of construction industry. It is highlighted as one of the most critical and yet, one of the most neglected aspects sectors. The plumbing sector in India is growing at a compounded annual growth rate (CAGR) of 15 per cent per annum and is estimated approximately around to be USD 4.63 billion market[89]

Market Trends:

The Indian Plumbing Industry is undergoing a transformative phase counted with notice of a rapid growth over the last few years. Few of the major trends for this kind of recognized and enhanced demand is the result of the major developments in the irrigation, oil and natural gas fields, water management projects,

[89] The Indian Plumbing Association (IPA)

government initiative like smart cities. Also, the real estate industry is also playing a leading role in creating a good market potential for the sector.

Some of the emerging plumbing trends which might boost the sector are shared below:

1 **Earth-friendly System:** This is the kind of plumbing method is mostly encouraged for supporting the 'Green Movement' across India and globally for solving the issue of wasted water.
2 **Luxury Plumbing Method:** The trend of having truly 'Luxury Plumbing Designs-made with best 'Pipe-Fittings' is taking huge hit at the present. There is a rage picking up for the need of innovative designs matching the modern fetish-like – having posh spa-like bathtubs and all finishing with the 'modular fixtures.' So, the market is picking up trends that showcase more of having both style-fiesta and comfort and this trend is surely rise to the custom-made plumbing materials orders and layouts.
3 **Drain Piping:** The concept of drain piping will pick up as it is made to give protection of the natural resources and decreases the water wastage as in Indian cities, up to 40 per cent of water is lost in transmission due to old distribution pipe networks.
4 **Re-cycling of Drained Water:** The trend to re-cycle the drained water will lead to technologically advanced ideas of designing the pipes and creating vice versa plumbing systems. This will lead to a much cleaner way of monitoring the bathrooms, sinks and the areas of shower and their relevant drainage management

The trend forecast the potential opportunities for business growth in the sector and justifies the requirement of skilled plumber in coming future.

19. Renewable Energy

Market segment:

The Indian renewable energy sector is the 4th most attractive renewable energy market in the world as per the Renewable Energy Attractiveness Index 2018. As of October 2018, India ranked 5th in installed renewable energy capacity. According to FY 2018 Climatescope report, India ranked second among the emerging economies to lead to transition to clean energy. The installed renewable power generation capacity has increased at a fast pace over the last few years, posting a CAGR of 19.78 per cent between FY 2014-18. Government of India has shifted focus towards the utilization of clean energy after it approved the Paris Agreement. As India looks to meet its energy demand on its own, which is expected to reach 15,820 TWh by FY 2040, renewable energy is set to play an important role.[90]

As of October 2018, generation capacities for Waste to Energy, Biomass Gasifiers, SPV systems stood at 175.28 MWeq, 163.37 MWeq and 767.51 MWeq, respectively. Northern India is expected to become the hub for renewable energy in India,[91] with a potential capacity of 363 gigawatts (GW) and with policies focused on the renewable energy sector. As of April 2019, total renewable power installed capacity (excluding large hydro) in the country stood at 78.35 GW. Off-grid renewable power capacity has also increased.

Market Trends:

A host of developments are driving the growth of the renewable energy sector and lowering sectoral risks by improving the economic viability of projects. Some of the major developments in the sector are presented below:

1 **Improvements in Cost-competitiveness of Solar and Wind Generation**: Improvements in funding available to RE projects and declines in equipment costs (wind turbine and solar PV modules), have made RE tariffs more competitive and raised the demand for RE generation.

2 **Availability and Terms of Finance**: Risk perceptions pertaining to utility-scale solar and wind energy generation in India have declined recently because of policy and market-related factors and the favorable financing environment in international and domestic markets. In the case of rooftop solar, multilateral banks such as the World Bank and the ADB have provided dedicated lines of credit to state-owned Indian banks for on-lending to grid-connected rooftop solar projects. These lines of credit have expanded the availability of credit to the rooftop solar sector, though loans from these lines of credit have largely been restricted to projects by large developers that are creditworthy.

3 **Increased Demand for Energy**: Improvement in living standards of the growing population, supported by urbanization, is influencing the demand for power in India. Conventional power generation methods like thermal power plants are finding it hard to meet this increase in demand, thus paving way for the growth of renewables.

4 **Efficient Collaboration between Government and Private sector**: The efficient collaboration between the government and the private sector is supporting the growth of the sector. There is a growth in industrial investments backed by supportive government policies in renewable technologies. This is resulting in affordable technologies for applications ranging from power plants to small rooftop installations.

5 **Growing Concerns Regarding Greenhouse Gas Emissions and Other Pollutants**: An increasing number of corporations, cities and countries are embracing emissions reduction targets and climate action plans to meet the goal of limiting the rise in global temperature. This is prompting governments

[90] Investindia.gov.in
[91] https://www.ibef.org/industry/renewable-energy.aspx

to look for cleaner power generation options, which is again proving to be beneficial to the renewables industry.

6 **Energy Access Advances in Developing Countries**: New energy technologies and commitments from international groups like the World Bank and SE for ALL are laying a foundation for providing energy access to developing countries including India.

20. Leather

Market segment:

India’s leather industry is growing at a fast pace, as leather is one of the most widely traded items in the world. Government of India has identified it as a focus sector because of its immense potential for export, growth and employment generation. Items like raw-hide, processed leather skins, leather goods, leather garments, leather footwear, handbags, wallets, saddlery and harness are the widely traded in India. Buffalo skin and goat skin are used to make leather that is exported to other countries. The Indian leather industry with its skilled and trained manpower and comparative cost advantages is among the top ten foreign exchange earners. The industry is known for its consistency in export earnings.

The major markets for Indian Leather and Leather Products are USA with a share of 14.66 per cent, Germany 11.22 per cent, UK 10.05 per cent, Italy 7.03 per cent, France 5.15 per cent, UAE 5.04 per cent, Spain 4.63 per cent, Hong Kong 4.52 per cent, China 3.09 per cent, Netherlands 3.05 per cent, Poland 2.23 per cent and Vietnam 1.88 per cent. These 12 countries together account for nearly 73 per cent of India’s total leather and leather products export. European Union collectively accounts for 52 per cent of India’s total export of leather and leather products.92 India is the 2nd largest producer of footwear, 2nd largest exporter of Leather Garments, 5th largest exporter of Leather Goods and 3rd Largest Exporter of Saddlery and Harness items.

The Leather industry is a labour intensive industry providing job to more than 4 million people, mostly from the weaker sections of the society. Women employment is predominant in Leather products industry with about 30 per cent share. The Leather industry in India has one of the youngest workforces with 55 per cent of the workforce below 35 years of age.93

Market Trends:

Given the importance accorded to this sector, the Government is implementing various Special Focus Initiatives under the Foreign Trade Policy for the growth of leather sector. With the implementation of various industrial developmental programs as well as export promotional activities and industry’s inherent strengths of skilled manpower, innovative technology, increasing industry compliance to international environmental standards and dedicated support of the allied industries, the Indian leather industry aims to augment the production, thereby enhance export, and resultantly create additional employment opportunities.

The emerging strengths of the sector also lie in design development initiatives by institutions and individuals, continuous modernization and technology up-gradation, economic size of manufacturing units, constant human resource development program to enhance productivity, increasing use of quality components, shorter prototype development time, and delivery compliance and growing domestic market for footwear and leather articles.

In line with the positive outlook for the sector, the Indian Government has approved an outlay of USD 400 million for employment generation in the leather industry. As part of the initiative, four mega clusters that will house tanneries, leather goods and footwear manufacturing units and training centres are coming up in Andhra Pradesh, Haryana, West Bengal and Uttar Pradesh.

[92] https://www.ibef.org/blogs/leather-exports-from-india-going-strong
[93] https://www.investindia.gov.in/sector/leather

21. Domestic Workers

Market Segment:

The Draft National Policy on Domestic Workers, defines a domestic worker as “a person who is employed for remuneration whether in cash or kind, in any household through any agency or directly, either on a temporary or permanent, part time or full time basis to do the household work, but does not include any member of the family of an employer.” The domestic workers can be further categorized into three sections based on the number of hours they invest at their household workplace - Live Out/Part Time, Live Out/Full Time and Live in/Full Time

The Domestic Workers sector in India is one of the largest employments generating sectors in the unorganized sector in India, with majority being women employees. Though the FY 2011 NSSO data put the number of domestic workers at 3.9 million, trade unions estimate the number to be around 10 million. Most of these are from vulnerable communities – Adivasis, Dalits or landless OBCs. Nearly all of them are migrant workers[94].

Key Initiatives and Policies in the Sector:

The domestic workforce in India falls in the category of ‘unorganized labour’ who has been often excluded from legal and social protection. Several attempts have been made to recognize their economic and social contribution and the need to improve their living and working conditions – to achieve decent work for domestic workers. Some of the key legislations formulated by Government are provided below:

1. **National Policy on Domestic Workers:** The Ministry of Labour and Employment, the formulation of a national policy in January 2019 for domestic workers. The aim of the policy is to ensure inclusion of domestic workers in existing legislations. This will also give right to form associations, minimum wages, access to social security, enhance skills, protect from domestic violence, have access to tribunals, and establish grievance redressal system.[95]
2. **The Unorganised Workers’ Social Security Act, 2008 -** The Government of India enacted this act to provide for social security and welfare of unorganised workers, and as per the definition of the law, domestic workers come under the ambit of ‘wage workers’ and are eligible for health and maternity benefits, old age protection, life and disability cover and any other benefit as may be determined by the Central Government for the unorganised workforce[96].
3. **Domestic Workers (Registration, Social Security and Welfare) Act, 2008** was introduced to regulate payment and working conditions and check exploitation and trafficking of women and other young household workers. (Act is subjected to State legislation and therefore the State governs its implementation. However, Central notification date is still pending)[97]
4. **Sexual Harassment of women at workplace (Prevention, Prohibition and Redressal) Act (2013): D**omestic workers are also included in the definition of workers (with home as the workplace) in the Act to prevent any sexual harassment of a woman working as domestic worker[98].
5. **Domestic Workers Sector Skill Council** was formed with an objective to define the key sectors where the Domestic Workers can be employed, to find the critical roles and identify the skill gaps that are associated with the identified roles. It is worthy to know that the Domestic Workers Sector Skill Council was recently awarded as the best “Start-up in Skill Development” at the 6th Skill Development Summit,

[94] https://www.thehindu.com/opinion/op-ed/its-not-help-its-work/article19273135.ece
[95] http://pib.nic.in/newsite/PrintRelease.aspx?relid=187222
[96] http://legislative.gov.in/sites/default/files/A2008-33.pdf
[97] https://paycheck.in/labour-law-india/domestic-work-in-india
[98] http://legislative.gov.in/sites/default/files/A2013-14.pdf

which was organised by Indian Education Network, in FY 2018, based on the work, achievements and special initiations done since the inception of the council.

22. Aviation and Aerospace

Market segment:

The civil aviation industry in India has witnessed consistent double-digit growth over the last four years. The Government's focus on connectivity for all has been one of the key drivers propelling the growth of all sub segments in the aviation sector namely-Airports, Airlines, Maintenance repair and overhaul (MRO), Air cargo and express industry, Ground handling and Aviation academies.

The International Air Transport Association (IATA) forecasts India to become the third-largest aviation market in terms of passengers by FY 2024-25, after China and the United States, surpassing countries such as the UK, Japan, Spain, and Germany. India's passenger traffic grew at 16.52 per cent year on year to reach 308.75 million in FY 2018. It grew at a CAGR of 12.72 per cent during FY 2006-18. Domestic passenger traffic grew YoY by 18.28 per cent to reach 243 million in FY 2018 and is expected to become 293.28 million in FY 2020[99]. International passenger grew YoY by 10.43 per cent to reach 65.48 million in FY 2018 and traffic is expected to become 76 million in FY 2020.

India's domestic and international aircraft movements grew 7.93 per cent YoY and 6.36 per cent YoY to 2,153 thousand and 453.61 thousand during FY 2018-19, respectively. In FY 2019, passenger traffic in India stood at 344.70 million. Out of which domestic passenger traffic stood at 275.22 million while international traffic stood at 69.48 million. Total freight traffic handled in India stood at 3.56 million tons during the same time. In FY 2019, domestic aircraft movement stood at 2.15 million while international aircraft movement stood at 0.45 million. As of March 2019, India has 103 operational airports. India has envisaged increasing the number of operational airports to 190-200 by FY 2040.[100]

Market Trends:

The civil aviation industry is susceptible to a large number of fundamental and peripheral risks. These include economic boom and bust cycles, volatility in oil price and exchange rates, natural disasters, epidemics, infrastructure challenges, protectionism, wars and political upheavals etc. Despite the inherent challenges the Indian civil aviation industry has managed to exhibit significant resilience against these risks over the last two decades. Some of the key reasons behind the consistent growth of the Indian aviation sector include:[101]

1 Clear intent of the government to leverage the strengths of the private sector by way of privatization of the national carrier Air India, helicopter company Pawan Hans and operation of large government-owned airports through PPP.
2 Removal of FDI limits for almost all sub-sectors like airports, air cargo, ground handling, general aviation and Maintenance, Repair and Overhaul (MRO) etc.
3 Liberalization of global flying rights with all Indian carriers having a fleet of 20 aircraft free to fly abroad.
4 Opening of regional airports in India's hinterland through the landmark Regional Connectivity Scheme (RCS) popularly known as UDAN ('Ude Desh ka Aam Nagrik').
5 Formulation of the industry-friendly National Civil Aviation Policy 2016 (NCAP 2016) that covers almost all aspects of Indian aviation.

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[99] https://www.ibef.org/industry/indian-aviation.aspx
[100] https://www.ibef.org/industry/indian-aviation.aspx
[101] https://www.globalaviationsummit.in/documents/VISION-2040-FOR-THE-CIVIL-AVIATION-INDUSTRY-IN-INDIA.pdf

6 Development and operation of leading airports at Delhi, Mumbai, Hyderabad, Bengaluru, Hyderabad and Cochin through the Public Private Partnership (PPP).
7 Partial open skies in international routes wherein India's neighboring countries and those outside a 5000 km radius from the capital New Delhi can have unlimited flights to designated international airports in India.

23. Food Processing

Market segment:

Food processing is a major industry in India and plays a huge role in terms of its contribution to GDP, employment and investment and connecting farmers to consumers in the domestic and international market. The industry is ranked fifth in terms of production, consumption, export and expected growth.[102]It employs approximately 1.85 million people in around 39,748 registered units with fixed capital of USD 32.75 billion and aggregate output of around USD 158.69 billion. Some major industries constituting the sector include grains, sugar, edible oils, beverages and dairy products.

The industry comprises of the following segments:

- Dairy, fruits and vegetable processing,
- Grain processing, Meat and poultry processing
- Consumer foods including packaged foods, beverages and packaged drinking water
- Fisheries

Market Trends:

The key trends boosting the growth of the food processing sector are listed below: -

1 **Indian Consumer's Spending on Food*:*** With retail contributing to 70 per cent of the total sales, the Indian food and grocery market is the world's sixth largest. On average, Indians spend 31 per cent of their total earnings on food and grocery.

2 **Growth in Food Exports*:*** Propelled by rise in the demand for Indian processed food and the large number of Indian expats in foreign countries, the demand for Indian food is rising in the international market. According to estimates, between FY 2018 and FY 2023, the industry is expected to expand at a compound annual growth rate (CAGR) of ~11.5 per cent to reach a value of USD 224 billion in FY 2023

3 **Availability of Cheap Workforce**: The country has a relatively cheaper workforce that can be effectively utilized to set-up a low production base for the domestic and export market.

4 **Online Food Sales*:*** The online food ordering market in India is likely to grow at over 16.2 per cent annually to touch USD 17.02 billion by FY 2023. Among top geographies, Bengaluru gets the highest number of online orders (with a share of 20 per cent), followed by Mumbai (18 per cent) Pune (17 per cent), Delhi (15 per cent) and Hyderabad (12 per cent)[103]

5 **Technological Upgradation*:*** The industry is leveraging technology such as Big Data services, Blockchain etc. to better understand their consumers, increase efficiency, and generate new creative recipes in mass quantities and bring in transparency. McDonalds, for example, has actively pursued a

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[102]IBEF, Indian Food Industry, 2017, accessed on August 1, 2019 https://www.ibef.org/download/Food_Processing_270608.pdf
[103]Indian online food ordering market set to grow at 16.2per cent, to touch USD 17.02 billion by 2023, March, 2019, https://www.businesstoday.in/current/economy-politics/indian-online-food-ordering-market-set-to-grow-at-162-to-touch-1702-billion-by-2023/story/331156.html, accessed August 1, 2019

data-driven culture by turning to analytics to identify best practices and better understand what is happening at specific locations.[104]

Within the industry also there is emphasis on technologies that retain product nutrient values, increase shelf life, including newer exotic range of products, eco-friendly packaging etc. Some of these technologies include, high pressure processing, vacuum frying, microwave assisted thermal sterilization, modified atmosphere packaging[105]. E-tailers have started using the big data analytics to understand the consumption patterns and have started to sort products as per the native tastes and preferences, AI to identify beneficial plant compounds to add to food.[106] The industry is further witnessing change with the technology of the "Online Food Ordering" business. The online food delivery division is developing at 150 per cent year-on-year and the GMV (Gross Merchandise Value) is assessed at USD 300 million.

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[104]How Tech is Changing the Food Industry, March, 2018, https://artplusmarketing.com/how-tech-is-changing-the-food-industry-75f43e5e18dc, accessed August 1, 2019

[105]Emerging Trends in The Indian Food Processing Industry, November, 2019, https://www.smartcomplianz.com/2018/11/emerging-trends-in-indian-food.html, accessed August 1, 2019

[106]Data Analytics and Data Prediction in the Food Industry, May, 2019, https://igniteoutsourcing.com/it-outsourcing/data-analytics-prediction-food-industry/, accessed August 1, 2019

24. Gem and Jewelry

Market segment:

The Gems and Jewelry industry of India plays an important role in fostering the growth of the Indian economy. The industry has a wide gamut of products that create demand from domestic and overseas buyers, thereby propelling employment growth in different pockets in the country. To elaborate, the sector can be segmented into multiple categories, owing to the influence of product diversity and regional variety, such as Diamonds, Gemstones, Pearl and Gold, Silver and Platinum Jewelry. These sub sectors can be further classified into traditional handmade and the machine-made segment. In fact, it is estimated that India is home to approximately 60,000 jewelry manufacturing units, which are involved in various activities in the gems and jewelry value chain[107]

A growing trend has been observed in the market size of Gems and Jewelry, which was approximately USD 60 billion in FY 2017 and is expected to grow to USD 110 billion by FY 2022 [108]. The Gems and Jewelry industry in India contributes to about 7 per cent of the country's GDP[108]. In fact, the Gems and Jewelry industry in India, is one of the largest in its sectors around the world, as it contributes 29 per cent to the global jewelry consumption[108].The industry's contribution to India's commodity export is about 13 per cent and this contribution has grown at a compound annual growth rate (CAGR) of over 14.8 per cent over the last 50 years and 16 per cent from FY 2014 to 2019. [108]

Market Trends:

The growth of the sector is a result of multiple factors playing at a time and influencing the direction and magnitude of the growth of the industry. Some of the key factors are listed below:

1. **Technological Inputs:** Focus on technological inputs, growth of lab created diamonds and rise in quality norms and hallmarking guidelines resulting in rising cumulative FDI (in USD) in diamond and gold ornaments.
2. **Changing Demographics:** Changing demographics and preferences of the consumers, combined with demands for new designs as per the changing lifestyles of the buyers.
3. **Festive Seasons:** An important aspect in context of Indian markets, is the surge in sales of gems and jewelry observed during festive seasons and during weddings across the country, making it a recession resistant consumer segment.
4. **Customized Gems & Jewelry**: There has been a rise in the demand of cross-cultural designs in jewelry. The new designs are inspired by jewelry from different countries such as European, Egyptian, and Italian cultures. For example, Titan's brand Zoya and collection Mia.
5. **Penetration of Organized Retail:** The evolving industry is marked by specialty format, where a variety of gems and jewelry are stocked under one single roof, providing multiple options to the customers. Besides, companies such as PC Jewelers and Titan are significant shareholders of organized retail business for gems and jewelry with stores such as Tanishq operating. The need for such outlets is influenced by the preference of customers towards branded products, which is available at exclusive modern retail jewelry stores so that there is scope for comparison of prices, designs, quality etc.
6. **Sales of Gems and Jewelry through Online Stores:** Many vendors are going for online retail strategies to increase their target audience and reduce the cost of having a physical outlet everywhere. The manufacturers are making use of digital media, for advertising, sharing information and building

[107] Gems and Jewellery Skill Council of India, www.gjsci.org/reports - Skill Gap Report, accessed in July 2019
[108] Invest India, National Investment Promotion & Facilitation Agency – Gems and Jewelry, https://www.investindia.gov.in/sector/gems-jewellery, accessed in July 2019

customer data base through ‘remarketing’ and maintaining customer relationships. The increase in the online shopping has also forced the vendors to improve the shopping experience, security, reliability, and provide options such as cash on delivery, and costumer friendly return policies.

25. Sports

Market Segment:

The Indian sports sector is undergoing major changes with all-round developments initiated by the Government, the private sector as well as non-profit organizations. The Government has implemented reforms to tackle issues regarding infrastructure, talent scouting and training facilitation. Private sector and non-profit entities are also increasingly contributing to the sector by organising leagues and tournaments, funding talented sportspersons and getting involved in grassroots development. This has all resulted in a steep change in the sports industry, which has grown at a CAGR of ~19 per cent over the last 5 years. The sector contributes 0.1 per cent share of the GDP, while globally the industry is sized at around 0.5 per cent of GDP share. India currently exports 60 per cent of sporting goods manufactured and the industry provides employment to nearly 5,00,000 people[109].

Going forward, increasing sports sponsorships, growing popularity of e-sports, economic growth, an increase in the number of Internet accessible devices and the emergence of multiple sports channels to capture viewership will drive growth. The growing popularity of e-sports events is expected to drive the global sports market. In FY 2017, the International Olympic Committee (IOC) declared e-sports to be considered as a sporting activity. In FY 2017, global E-Sport revenues reached USD 696 million, and they are expected to more than double by FY 2020 reaching USD1.5 billion, driving the overall sports market.

The growth of the sector is currently presenting a myriad of career as well as business opportunities. It includes several segments: sports infrastructure, sports events, training, goods manufacturing and retail. Moreover, the business of sports is not just limited to the mentioned avenues; it has far-reaching implications on the global economy due to its close association with other sectors, including education, real estate and tourism.

Market Trends:

Some of the major trends influencing the growth of the sector are listed below**:**

1. **Blending Technology in Sports**: Technology is revolutionizing sports training by live-tracking performances, perfecting athletic movements, enhancing communication and resulting in an upsurge in the below areas:
    - Online consumption of sports
    - Online engagement of fans
    - Female viewership
    - Viewership, sponsorship, participation in sports other than cricket
    - Number of start-ups in sports research and training management
    - Rural viewership.
2. **Favorable Regulatory Regime:** The Sports Authority of India, set up under the Ministry of Youth Affairs and Sports and the sport-specific National Sports Federation oversee the 'Khelo India' program. The key features of the program are:[110]
    - Annual scholarships ranging from USD 7,350 to USD 1,000 for young athletes for eight years
    - Funding to 20 universities across the country to promote excellence in sports with education
    - Providing maximum access to organized sports to college and school children

[109] https://www.exchange4media.com/media-tv-news/indian-sports-industry-can-become-a-USD 10-billion-industry-in-next-5-7-yearssanjay-guptamd-star-india-at-the-cii-scorecard-forum2018-91312.html
[110]https://www.india-briefing.com/news/sports-industry-india-investment-manufacturing-retail-training-17135.html/?hilite=per cent27sportsper cent27

- National fitness drive to measure and support fitness related activities for 200 million children
- Set up and use of open gyms in public parks.

National Skill Development Corporation
Transforming the skill landscape

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About National Skill Development Corporation (NSDC): National Skill Development Corporation, working under the aegis of Ministry of Skill Development & Entrepreneurship, is a unique public-private-partnership which aims to catalyze creation of quality vocational training ecosystem in India. The organisation provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train-the-trainer academies either directly or through partnerships. Since establishment in 2009, NSDC has trained more than 2 crore people through its partnership with 600+ training partners, wide a robust network of 11,000+ training centers spread over 600 districts across the country. NSDC has institutionalized 37 Sector Skill Councils and is also implementing Government's flagship skill development schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK), National Apprenticeship Promotion Scheme (NAPS), among others.

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