India Investment Journal

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IN THIS ISSUE

Hospital to the World

Published by

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IMPACTFUL EVENTS

November 2017

India Investment Journal
indiaincorporated.com

India Investment Journal is published by India Inc.

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November Edition
Price £5

EDITOR'S NOTE

The last few weeks have brought some cheer for those tracking the investment climate in India.

Credit rating firm Moody's upgraded India's sovereign rating by one notch, a move seen as a clear endorsement of the economic reform agenda underway in the country. A key plank of this agenda has been the ambition to improve the ease of doing business in the country, which also received a major boost with India moving into the top 100 in the World Bank's 'Doing Business 2018: Reforming to Create Jobs' report. This marked a convincing jump of 30 spots from last year's rank of 130th to this year's 100th. The report notes that India has adopted 37 reforms since 2003 and nearly half of these reforms have been implemented in the last four years.

There was more good news in store as the country moved up in the International Monetary Fund (IMF) GDP per capita index. India saw its per capita GDP rise to $7,170 in 2017, up from $6,690 in 2016, improving its rank by one position to 126th.

All these indicators put together paint a broadly positive picture for the inward investment landscape in the country. This edition of 'India Investment Journal' analyses many of the trends that have led to this economic bounce through the prism of specific sectors.

The Cover theme explores India's pitch to become the hospital to the world with an in-depth look at the country's vibrant tourism sector. It covers a range of views on medical tourism by Fortis Healthcare and Vaidam as well as the relatively new market of second homes as an alternative to homestays by Oyo.

The Big Story for this month is the country's booming mobile phone market and what makes it attractive to global giants. We explore how India is set to hit 530 million smartphone users, way ahead of the US figure of 229 million, by 2018 and a telecom expert explains how Digital India in sync with Make in India will enable local innovation in the mobile phone market.

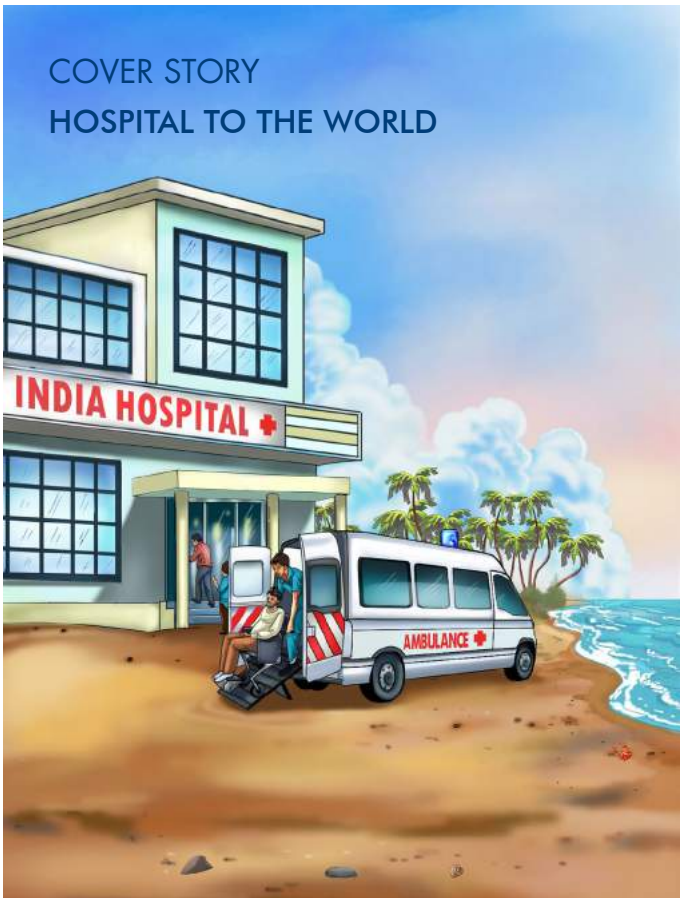
We take regular stock of some of the Indian government flagship schemes, with strides in Digital India captured under our regular Tech Speak column as well as an update on the UK-India Future Tech Month. Invest India elaborates on the details of a new Access India programme to hand-hold small and medium enterprises (SMEs) for their entry into one of the fastest growing markets in the world.

The CSR Focus is on a new social development bond launched to meet enhanced education goals in India and the State Focus this time is on Andhra Pradesh, which includes a sneak-peak into the new state capital of Amaravati and a first-hand account of Chief Minister Chandrababu Naidu's investment scouting mission to the UK.

To round off the edition, Realty Corner provides a broad sweep of the Indian property market and Yoga Corner focuses on the art of breathing.

Aditi Khanna
Editor, India Inc.

CONTENTS



EDITOR'S NOTE

THE BIG STORY

FLAGSHIP SCHEMES

OTHER HIGHLIGHTS

STATE FOCUS/Andhra Pradesh

QUALITY CARE AND COST EFFECTIVENESS GIVES INDIA ITS MEDICAL TOURISM EDGE

by Bhavdeep Singh

The chief of one of India's leading healthcare players, Fortis Healthcare, weighs up India's appeal as a hub for international patients.

Medical tourism is a phenomenon where people travel from their home country to another nation to access quality medical care. There are many factors which influence their decision, the most common one being the ability to access quality medical procedures which are not conducted within the boundaries of their home country.

Having said that, while the quality of clinical care is the primary area of focus, cost continues to play a key role in positioning India as an attractive medical tourism destination. With the advancements of the recent past, the Indian healthcare delivery system has made significant progress in terms of medical outcomes, ease of access and quality of patient care which, along with favourable pricing,¬ has contributed to the growth of medical tourism in India.

The medical expertise available in India and the resultant medical outcomes are talked about all over the world and consistently meet international benchmarks and standards.

As per the Federation of Indian Chambers of Commerce & Industry (FICCI), Indian medical tourism is expected to reach $6 billion by 2018, with the number of people arriving in the country for medical treatment doubling over the next four years. According to the Ministry of Commerce, India is the fastest growing medical destination in Asia with medical tourism in the country slated to become a $9-billion industry by 2020. A recent report published by an industry association stated that India's hospitals are of global standards and our skilled specialists have given a sizeable boost to our country's credibility as a preferred destination for patients from outside India. The medical expertise available in

India and the resultant medical outcomes are talked about all over the world and consistently meet international benchmarks and standards.

Some significant factors for the substantial increase in medical tourism in India include lower costs of medical procedures, world class expertise and treatment solutions, highly qualified doctors, rising ability of our clinicians in conducting complicated procedures, better technology, wider treatment options, lower logistics, accommodation costs and no waiting list, as compared to their home countries. Over the last few years, India has made significant advances in high-end medical procedures and now offers comprehensive treatment across the entire spectrum of medical sciences. From the latest treatments like immunotherapy, TAVI and LVAD surgeries to heart and other organ transplants, India is definitely at par with the West in terms of adoption and implementation of cutting edge technology and advanced medical procedures.

An additional striking aspect of Indian healthcare is the growing popularity of traditional and alternative medicine techniques such as Yoga, Ayurveda, Therapeutic healing, Siddha, Unani, Acupuncture and Homeopathy. According to the Ministry of Tourism, the number of people entering India on medical visas jumped 166 per cent in the last three years, from 75,688 in 2014 to 201,333 in 2016. As far as costs are concerned, if people needing treatment for medical conditions approach India instead of the US, they are likely to save considerably on their medical expenditure. Americans can get treated in India at a fraction of the cost – just 10 per cent of what they would incur in their home country. The savings on medical treatment in India are also significant compared to countries such as Singapore, Mexico, Turkey, Malaysia, Thailand and Costa Rica. Pakistan, Bangladesh, Nepal, Afghanistan, and Maldives. Closeness to India and similar cultural ethos drive greater inflow of patients from these regions.

It is also worth mentioning that an additional important criterion for servicing international patients is international accreditation from the Joint Commission International (JCI). Their standards must be met by hospitals in order to be accredited and the JCI serves to provide international patients with assurance and confidence in selecting hospitals for treatment.

The government of India has been proactive and helpful in the process of granting visas to international patients. With India being projected as one of the frontrunners in quality healthcare services today, it is estimated that the number of medical tourists would only increase in the coming years. This year for instance, the government made a special announcement during the festival of Diwali in October 2017 that all pending medical visas will be cleared on priority. Several other initiatives have been launched to encourage more patients from other countries to consider India for treatment and wellness programmes. Many existing government healthcare facilities have been upgraded and 49 additional cancer centres are to be set up.

The Indian Ministry of Tourism has set up the National Medical Tourism Board, which has representation from all stakeholder communities with the basic objective to upscale

Medical Value Travel activity in India. The ministry also offers financial support to accredited medical and wellness tourism service providers.

I am happy to share that FICCI as well as other industry bodies and private organisations have been working diligently with the government on the above issues. The focus is on bringing about requisite policy changes that can provide an impetus to medical value travel in India.

FICCI, through its National Committee on Medical Value Travel, which is a convergence of the government and private sector on one platform, is working on issues related to:

- Visas and general access
- Platform to introduce accreditation for "approved" hospitals
- Formalising facilitator network
- Continuous leveraging of the "Brand India" initiative to support MVT

We hope that through the efforts made by the government, along with industry, we would succeed in differentiating India from other Asian destinations and position India as the preferred destination for highly specialised clinical treatment in the areas of cardiovascular, orthopedics, oncology, among other fields.

As part of some Home Ministry statistics presented in Parliament, medical visas issued by India in 2016 increased by 45 per cent as compared to 2015. Nearly 180,000 foreigners visited India in 2016 for medical treatment, up from 122,000 the previous year. The facility of e-tourist visas has been expanded to include short-term medical treatment as well. Exclusive immigration counters and facilitation desks have been set up at various Indian airports to provide required services to people. The government recently announced plans to introduce a separate policy to promote India as a key destination for medical tourism by promoting integrated treatment therapies combining traditional therapies with allopathic treatment. The Ministry of Commerce in coordination with the Ministries of Health and Tourism has launched a special website www.indiahealthcaretourism.com, which aims to be a one-stop-shop with complete details for tourists.

The government of India has been proactive and helpful in the process of granting visas to international patients.

Fortis Healthcare is a leading, accredited integrated healthcare delivery service provider in India. Our verticals primarily comprise hospitals, diagnostics and day-care specialty facilities. Currently, we operate our healthcare delivery services in India, Dubai, Mauritius and Sri Lanka with 45 healthcare facilities (including projects under development), approximately 10,000 potential beds and over 346 diagnostic centres.

On average, Fortis receives 15 per cent of its patients from international markets, with most coming from Iraq, Kenya, Nigeria, Uganda, Uzbekistan, Kazakhstan, Ukraine, Turkmenistan, Pakistan, Bangladesh and Afghanistan. Having said that, we receive international patients from over 115 countries and from markets as far away as the Pacific Islands. While the leading specialties at Fortis Healthcare are cardiology, nephrology, neurology and oncology, organ transplant and metabolic surgeries, we have the best treatment solutions available across all major specialties.

Our breadth of health sector partnerships is comprehensive and we are focused on driving collaboration and strengthening associations across three broad platforms. Firstly, we partner with the Ministry of Health division in multiple countries such as Russia, Ukraine, Kazakhstan, Iraq, Yemen and Samoa to name a few. The key objectives of such an association are to share knowledge through structured training programs, improve the standards of medical infrastructure and facilitate the referral and treatment of patients. Secondly, Fortis operates and manages hospitals in select countries overseas, with Mauritius, Nigeria and Uganda among a few examples. Thirdly, we partner with both private and government hospitals to perform OPDs and surgical procedures overseas. The case mix and complexity of these surgeries is determined by the quality of medical infrastructure and availability of post-operative care.

In order to ensure the comfort of international patients, we have travelled that extra mile to take translators on board and confirm their availability round the clock. Our flagship hospital, Fortis Memorial Research Institute in Gurugram, has a dedicated International Lounge that functions as a "one-stop-shop" with Skype consult options available for patients before their arrival and following their return to their respective countries. Our team also provides customised services for international patients, such as visa assistance, interpreter facility, concierge services, dedicated service managers, complimentary airport transfers, accommodation, assistance with meal options and provision of local mobile phone SIM cards.

We have some very specific goals for our hospitals in the coming decade and the key is patient-centric care. Our internal positioning is completely patient-focused and clinician-led. Our teams are making every effort to provide the best possible care to each and every patient. Today, we are keenly aware that we need to be universal and global in our thinking and mindset. And globalisation is providing that opportunity for the Indian healthcare sector to consistently improve and cater to what our customers need today, in the best possible way.

As we look ahead, I am extremely bullish on the Indian healthcare industry. Year on year we continue to grow – the complexity of work continues to increase, new medical technology and advancements are pioneered, and medical outcomes and patient care improves. As far as medical tourism is concerned, not only are we penetrating deeper into our traditional source markets, but we are also adding new markets and increasingly have noticed a marked shift in the profile of patients coming to India for treatment. Markets like the US and UK are slowly opening for specific high-end procedures on the back of long waiting times and high pricing in their home markets.

At Fortis, our efforts are going to remain firmly rooted in delivering high quality medical care, patient satisfaction and affordable pricing.

Bhavdeep Singh is Chairman, FICCI Medical Value Travel Committee, and CEO, Fortis Healthcare Limited.

THE TOURIST IS OUR GOD

by India Inc. Staff

The old Sanskrit saying 'Atithi Devo Bhava', which has been loosely translated in the headline, is paying India rich dividends as foreign hotel and restaurant chains flock to the country to create jobs and provide economic opportunities to many more.

It is widely accepted that the hospitality and tourism sector is a key driver of employment and growth the world over. In the Indian context, the Narendra Modi government has identified this sector as key to generating jobs for the millions of youngsters who join the workforce every year – with sound reason.

The now disbanded Planning Commission, which has been replaced by the NITI Aayog, had calculated that the tourism and hospitality sector generates more jobs per every unit of investment than any other sector and is an ideal vehicle to provide employment to the widest array of both skilled and unskilled people even in the most remote areas of the country.

According to a report by the World Travel and Tourism Council, the Indian hospitality sector is likely to emerge as one of the largest employers in the economy – providing jobs to about 40 million people by 2019.

Market Size

Supporting the growth of the tourism and hospitality sector in India is its rising 300-million strong middle class, which, increasingly, has greater disposable income at its disposal. Domestic tourism within the country expanded 15.5 per cent to 1.65 billion (provisional) during 2016. The leading 10 states accounted for 84 per cent of this, according to Indian Ministry of Tourism figures.

Foreign tourist arrivals in India are also growing in tandem. These rose 18 per cent to reach 723,000 in September 2017. The Modi government's initiative to issue e-visas to foreign tourists is a major contributory factor behind this increase. About 118,000 inbound foreign tourists availed of e-visas in September 2017, a jump of 71 per cent over the figure for the same month the previous year.

Experts estimate that India will rank among the world's top five business travel markets by 2030. The spending on business travel is expected to increase three times by 2030 from $30 billion in 2015.

Foreign chains coming in droves

Almost every major international hospitality major, including the likes of Sheraton, Hilton, Holiday Inn, Le Meridien, Amanda, Satinwoods, Banana Tree, InterContinental, Accor, Mandarin Oriental, Cabana Hotels, Marriott International, Berggruen Hotels, Hampton Inns, Premier Travel Inn, Starwood and Hyatt are stepping up their investments in the country, providing stiff

competition to large Indian hotel chains such as ITC, Indian Hotels Company Ltd (which runs the Taj group of hotels), East India Hotels (which runs the Oberoi chain) and Bharat Hotels (Lalit Group), among others.

Fresh investments by international hotel chains on expanding their India operations are expected to take their share of the Indian hospitality pie to 50 per cent by 2022, from the current level of 44 per cent.

This sector is among the leading drivers of the surge in foreign direct investment (FDI) into the country. Between April 2000 and June 2017, the hotel and tourism sector attracted around $10.48 billion of FDI, according to the data released by Department of Industrial Policy and Promotion (DIPP).

According to a report by the World Travel and Tourism Council, the Indian hospitality sector is likely to emerge as one of the largest employers in the economy – providing jobs to about 40 million people by 2019.

The Indian Brand Equity Foundation (IBEF) highlights some recent investments in the sector as the following:

- Hyatt Hotels Corporation has outlined plans of bringing its Hyatt Centric brand to India soon along with three new hotels in Kochi, Rameswaram and Hyderabad by 2017.
- AccorHotels, a French multinational hotel group, plans to expand its footprint in Guwahati and Kolkata by adding more 550 rooms to its portfolio of hotels in the next three years.
- MakeMyTrip raised $330 million from Ctrip.com International Ltd, Naspers Ltd and few undisclosed investors, in a bid to withstand competition in the ticketing segment.
- MakeMyTrip has agreed to buy Ibibo Group's India travel business at a deal value of $720 million, thus creating India's largest online travel firm with a value of $1.8 billion, as estimated by Morgan Stanley.
- Yellow Tie Hospitality Management Llp, specialising in franchise management of food and beverages firms, plans to invest up to $15-20 million in five restaurant ventures of celebrity chef Harpal Singh Sokhi. The goal: have 250 outlets under these brands by 2020.
- DineEquity Incorporation has signed a franchisee partnership deal with food services firm Kwal's Group, in order to enter the Indian market with its breakfast chain IHOP.
- Vatika Hotels Pvt Ltd has raised Rs 495 crore (US$ 74.25 million) in debt from Axis Bank Ltd to expand its hotels and quick-service restaurant chain besides its business centres.

Analysts estimate that the Indian mid-market hotel segment will receive about $1 billion in FDI excluding land over next five years, with major hotel chains like Marriott, Carlson Rezidor and others planning mid-market and budget hotels in Tier-II cities.

French multinational Accor Hotels, which already operates 10 of its 30 hotel brands in India – with an inventory of almost 10,000 rooms – is planning to expand its footprint in India. It recently announced that it will bring its premium chain, Raffles, to this country shortly.

Not only hotels

Many foreign restaurant and fast food chains have also made large investments in India. These include McDonalds, Pizza Hut, KFC, Dunkin Donuts, Domino's, US Pizza and Costa Coffee.

The Indian tourism and travel industry is the country's third-largest foreign exchange earner and accounts for more than 6 per cent of India's GDP and almost 9 per cent of employment, according to official figures.

It has significant linkages with other sectors such as agriculture, horticulture, transportation, handicrafts and construction. The tourism industry includes travel agencies, tour operating agencies and tourist transport operating agencies; units providing facilities for cultural, adventure and wildlife tourism; surface, air and water transport facilities for tourists; and convention/seminar units and organisations.

Different strokes for different folks

TThe Indian tourism sector includes medical and healthcare tourism, adventure tourism, heritage tourism, ecotourism, rural tourism and pilgrimage tourism.

Medical tourism, also known as health tourism, has emerged as an important segment, owing to India's skilled healthcare professionals and the lower cost of healthcare facilities in the country.

Wellness tourism is regarded as a sub-segment of medical tourism and it includes the promotion and maintenance of good health and wellbeing. India, with its widespread use of Ayurveda, Yoga, Siddha and Naturopathy, complemented by its spiritual philosophy, is a well-known wellness destination.

Heritage tourism is oriented towards exploring the cultural heritage of a tourist location. India is well known for its rich heritage and ancient culture. The country's rich heritage is amply reflected in the various temples, majestic forts, gardens, religious monuments, museums, art galleries and urban and rural sites.

Due to its varied topography and distinctive climatic conditions, India is endowed with various forms of flora and fauna, and it has numerous species of birds, mammals, reptiles, amphibians and plants life on offer for tourism. Wildlife tourism includes wildlife photography, bird watching, jungle safari, elephant safari, jeep safari, jungle camping, ecotourism, etc.

Meetings, incentives, conferences and exhibitions (MICE) tourism is also one of the fastest-growing in the global tourism industry. It caters to business travellers by providing a one-stop shop for various forms of business meetings, international conferences and conventions, events and exhibitions.

The Ashok, New Delhi, Hyderabad International Convention Centre, Hyderabad, and Le Meridian, Cochin, are forerunners in the Indian MICE tourism industry, facilitating domestic and international business meetings and conferences.

Rural tourism showcases rural life, art, culture and heritage at rural locations. The existing scheme for destination development supports the development of infrastructure in rural areas. Under this scheme, the thrust is on promotion of village tourism as a primary product to spread tourism and its socio-economic benefits to rural and new geographic regions.

The Ministry of Tourism has joined hands with the UNDP for capacity building — around 153 rural tourism projects have been sanctioned in 29 states and Union Territories including 36 rural sites where UNDP offers support in capacity building.

Adventure tourism promotion measures include financial assistance to state governments/Union Territory administrations

for development of adventure tourism destinations and granting of exemption from customs duty on inflatable rafts, snow-skis sail boards and other water sports equipment. Adventure tourism activities in India include mountaineering, trekking, mountain biking, river rafting and rock climbing.

Government Initiatives

The Indian government has realised the country's potential in the tourism industry and has taken several steps to make India a global tourism hub.

In the Union Budget 2017-18, the Government of India announced some initiatives to give a boost to the tourism and hospitality sector such as setting up of five special tourism zones, special pilgrimage or tourism trains and worldwide launch of Incredible India campaign among others.

Some of the major initiatives taken by the Government of India to give a boost to the tourism and hospitality sector of India are as follows:

- The Ministry of Environment, Forest and Climate Change, Government of India, is planning to revise India's coastal regulation norms aimed at opening up the 7,500 km long coastline for developmental activities like tourism and real estate.
- The Central Government has taken a number of steps for smooth transitioning to cashless mode of payment to ensure that no hardship is faced by the tourists and the tourism industry remains unaffected from government's demonetisation move.
- Maharashtra Tourism Development Corporation (MTDC) has come up with a unique tourism experience of visiting the open cast coal mine of Gondegaon and underground coal mine of Saoner, which are near Nagpur and part of Western Coalfields Limited.
- A Tripartite Memorandum of Understanding (MoU) was signed among the Indian Ministry of Tourism, National Projects Construction Corporation (NPCC), National Buildings Construction Corporation (NBCC) and Government of Jammu and Kashmir for the implementation of tourism projects in Jammu and Kashmir.

In terms of incentives, a five-year tax holiday is extended to organisations that set up hotels, resorts and convention centers at specific destinations. Besides this, the government has initiated measures to bolster the sector, such as provision of visa on arrival for tourists from Finland, Japan, Luxembourg, New Zealand and Singapore, and launch of several schemes that promote rural tourism and infrastructure related with the sector.

The government has also launched campaigns such as Incredible India!, Colours of India, Atithi Devo Bhavah and the Wellness Campaign to promote the Indian tourism and hospitality industry.

Road Ahead

India's travel and tourism industry has huge growth potential. The tourism industry is also looking forward to the expansion of the e-visa scheme, which is expected to double the tourist inflow to India. JW Marriott plans to have 175-200 hotels in India over the next four years.

Accor Hotels India has adopted a "Born in France, made in India" approach to increase its properties in India, which has reached a total of 45 hotels and is expected to increase to 55 hotels by 2017.

The future looks bright. The tourism sector will be among the early beneficiaries of continued growth, with most analysts agreeing that the Indian economy will expand at or about 8 per cent per annum over the medium term.

Tourism in India

2016 Snapshot

1. No. of foreign tourist arrivals in India: **8.80 million**
2. Annual growth rate of tourist arrivals: **9.7%**
3. Foreign Exchange Earnings: **$22.92 billion**
4. India's rank in international tourist receipts: **13th**
5. Contribution to total employment generation: **9.3%**
6. Contribution to GDP: **$208.9 billion (9.6%)**

Emerging Tourism and Hospitality Segments

Eco-tourism

Vast variety of flora & fauna in various states is a major factor behind their growing popularity as tourist destinations. Thenmala in **Kerala is the 1st planned ecotourism destination** in India.

Pilgrimage tourism

India being religious hub for different cultures attracts a large number of tourists within this segment every year.

Adventure tourism

The specialised packages cover mountaineering, trekking, bungee jumping, mountain biking, river rafting and rock climbing.

Luxury tourism

The luxury travel market in India registered a growth rate of **12.8%** in 2016, the highest in comparison with any other BRIC country.

Rural tourism

This involves visits to a village setting as a means of promoting a relaxed and healthy lifestyle.

Heritage tourism

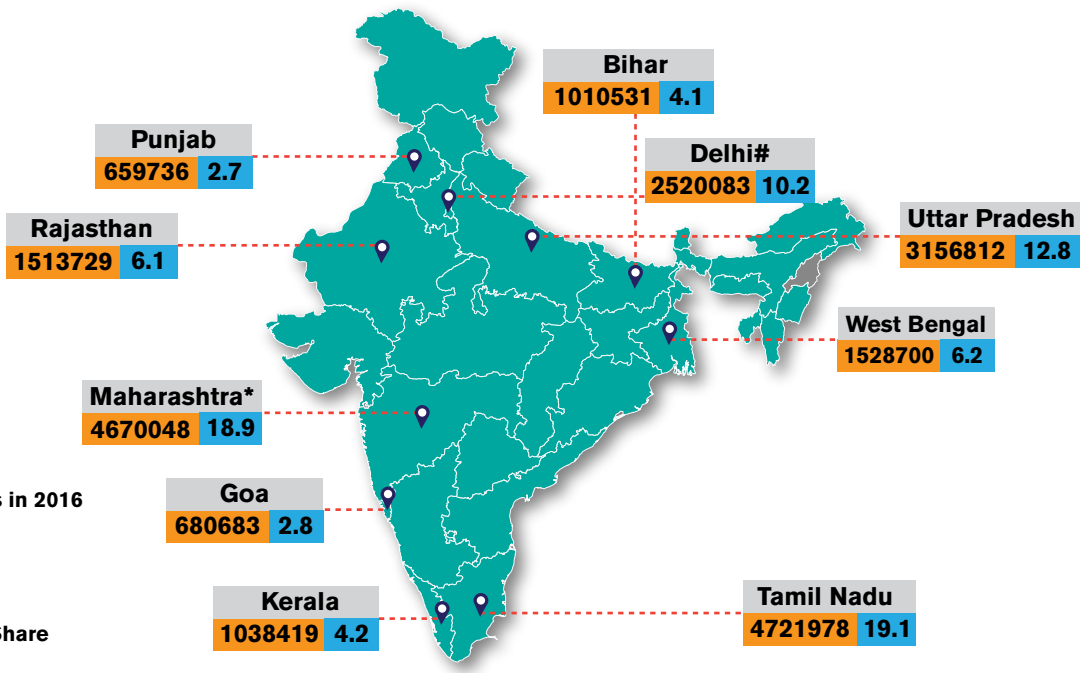
India's rich heritage is reflected in the various temples, majestic forts, pleasure gardens, religious monuments, museums, art galleries, urban & rural sites.

Medical tourism

Tourists seek specialised medical treatments, mainly ayurvedic, spa & other therapies. India's earnings from medical tourism could exceed **$8 billion** by 2020.

source: IBEF

Share of Top 10 States/UTs of India in Number of Foreign Tourist Visits in 2016



Source: State/UT Tourism Departments. Estimated using All India Growth Rate. # Estimating using Growth Rate of FTAs at Delhi Air Port*

Tamil Nadu

Meenakshi Temple, Brihadeeswarar Temple, Yelagiri Hills, Hogenakkal Falls & Vivekananda Memorial

West Bengal

Victoria Memorial, Sunderbans, Cooch Behar Palace, Darjeeling Himalayan Railway, Hazarduari Palace, Adina Mosque, Shantiniketan, Bishnupur Terracotta Temples and Dakshineswar Kali Temple.

Uttar Pradesh

Taj Mahal, Agra Fort, Fatehpur Sikri & Sarnath

Maharashtra

Ajanta & Ellora Caves, Shirdi, Ashtavinayak & Matheran

Delhi

Qutub Minar, Red Fort, Humayun's Tomb, India Gate, Jantar Mantar & Jama Masjid

Government Policies/Initiatives

Swadesh Darshan
Under the 2017 Budget, the government allotted $142.78 million towards an integrated development of tourist circuits under this scheme.

National Tourism Policy 2015
To encourage the citizens of India to explore their own country as well as position the country as a 'Must See' destination for global travelers.

Five Year Plan:
In the 12th Five Year Plan, a budgetary support of **$2.8 billion** was approved for the Ministry of Tourism for the development of tourism infrastructure projects.

Tourist Police
To be employed at prominent tourist spots.

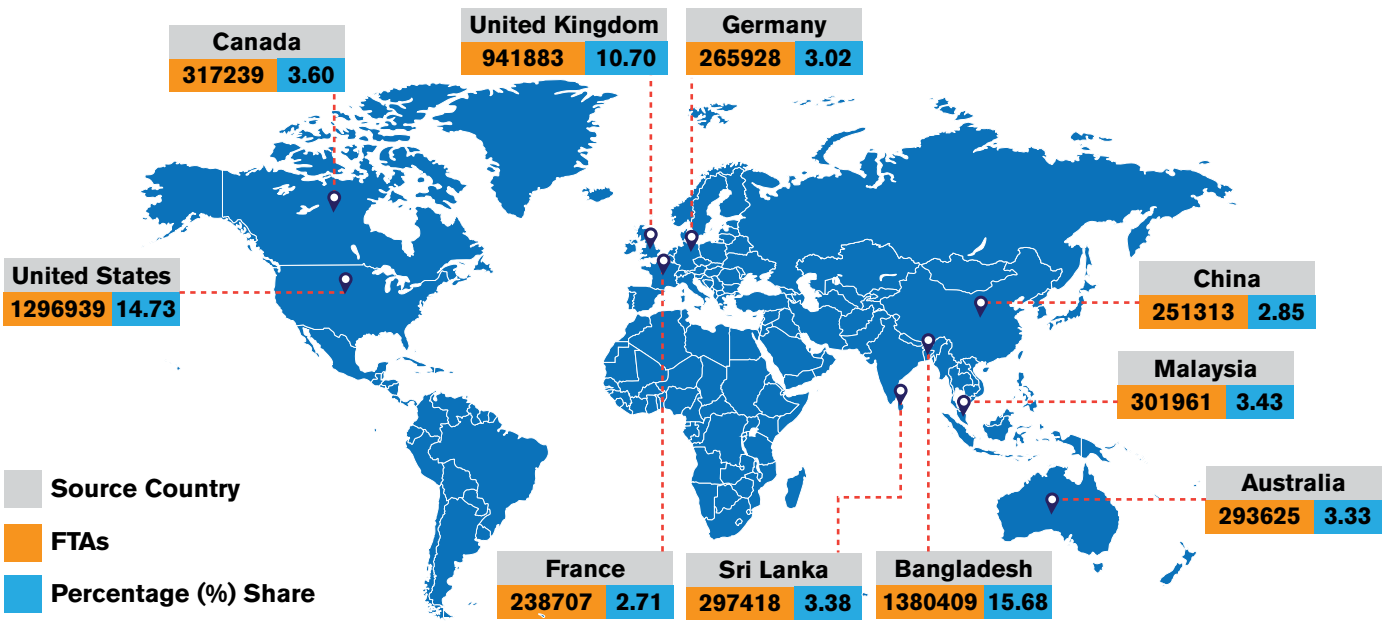
Special Boards
The Hospitality Development & Promotion Board set up to monitor & facilitate hotel project clearances/approvals.

Incentives from Ministry of Tourism
Assistance in large revenue-generating projects.
Support to Public Private Partnerships in infrastructure development, such as viability gap funding.
Schemes for capacity-building of service providers.

Project Mausam
Proposal to establish cross-cultural linkages & to revive historic maritime cultural & economic ties with 39 Indian Ocean countries.

E-Tourist Visa
In March 2016, 150 countries covered under the scheme

Top 10 Source Countries for Foreign Tourist Arrivals (FTAs) in India in 2016



Source: Bureau of Immigration, Govt. of India

INDIA AMONG LONDON'S FASTEST GROWING TOURISM MARKETS

Expenditure by Indian tourists visiting London is set for a 180 per cent spike by 2025, a latest report reveals.

Indian tourists visiting London are set to register a 90 per cent hike in numbers by 2025, latest data on the British capital's tourism industry has revealed.

According to the World Travel & Tourism Council (WTTC), India is expected to establish itself as the fourth-largest travel and tourism economy by 2027. With a 7.4 per cent projected CAGR, India is predicted to reach 520,000 visits to London by 2025.

In 2016, 0.27 million visitors from India came to London and that figure is set to hit 0.52 million in eight years' time. In terms of spend, visitors to London from India spent £258 million in 2016, which is projected to rise to £721.2 million by 2025 – a 180 per cent increase, according to data collated by London & Partners (L&P), the business arm of the Mayor of London's office.

In terms of spend, visitors to London from India spent £258 million in 2016, which is projected to rise to £721.2 million by 2025 – a 180 per cent increase

Sadiq Khan, the Mayor of London, said: "London is the world's greatest city, so it comes as no surprise that we lead the way when it comes to international tourism.

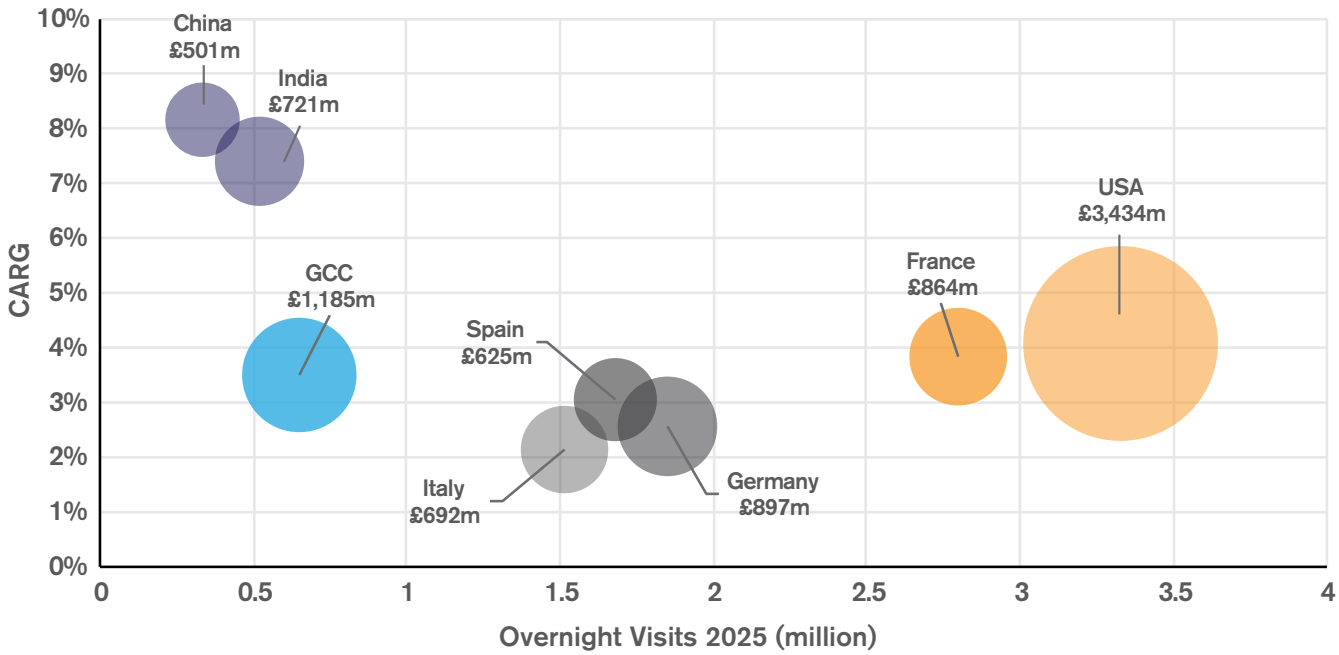
"Visitors to the capital bring huge benefits – the industry boosts London's economy, as well as supporting hundreds of thousands of jobs and showing the world that London is an open, welcoming and diverse city."

Given the promise that the sector holds for the city's economy, he has also launched a new 'Tourism Vision for London' to drive economic growth and stimulate the city's cultural scene, support greater numbers of jobs and strengthen London's reputation.

"The new vision will progress London's position as a global capital for tourism. It sets out a clear new direction for London's tourism sector, identifying where future growth will come from and the real opportunity we have to harness and manage that growth for the benefit of Londoners and visitors alike," the London mayor notes.

London's tourism industry is worth 11.6 per cent of the capital's GDP and 9 per cent across the UK as a whole. Tourism numbers in the city are set to rise sharply, with more than 40 million people expected to visit the city by 2025, an increase of 30 per cent on the 31.2 million visitors who came

Key source markets for overnight visits, 2025 projection



to the British capital in 2016.

Visitor spending is also set to grow by almost 50 per cent to 22 billion pounds a year, up from 14.9 billion pounds in 2016. The surge in visitor numbers could be bolstered in the short-term by currency fluctuations, and according to research from London & Partners around two-thirds of international visitors say they're more likely to visit London given a more favourable currency rate.

Besides India, the other fastest growing markets for visitors to London by 2025 include China (103 per cent growth), the US (43 per cent) and the UAE (43 per cent).

For the new Tourism Vision, London & Partners collaborated with more than 100 of the capital's tourism leaders, including the Greater London Authority, Gatwick Airport, Hilton and the Association of Leading Visitor Attractions (ALVA), to define a new roadmap for London's tourism industry.

"As a combined force, we believe that if this vision is realised, tourism will drive economic growth and stimulate the city's cultural scene, support even greater numbers of jobs and strengthen London's reputation as an open and welcoming city," L&P said.

The vision states that the growth in visitor numbers is not a given, with increasing competition from other destinations, particularly emerging markets that are fighting to attract new visitors. It recommends investments in infrastructure and towards shoring up off-peak visits.

The new vision also calls on the authorities to explore how to reduce the "complexity, time and cost" of obtaining visas for delegates from countries like India, as these are factors that discourage event organisers from choosing London.

Brian Bickell, CEO, Shaftesbury Plc, and chairman, UK China Visa Alliance, said: "There is scope for significant growth in visitor numbers from Asian markets, including India and China. However, this growth will only be achieved with greater investment by the Home Office to process these applications more effectively.

"It's important to note that these practical challenges could be dwarfed should visa-free travel no longer be an option as the UK leaves the EU. Electronic Travel Authority technology is now improving how visits are recorded and managing security concerns and their use should be extended wherever possible."

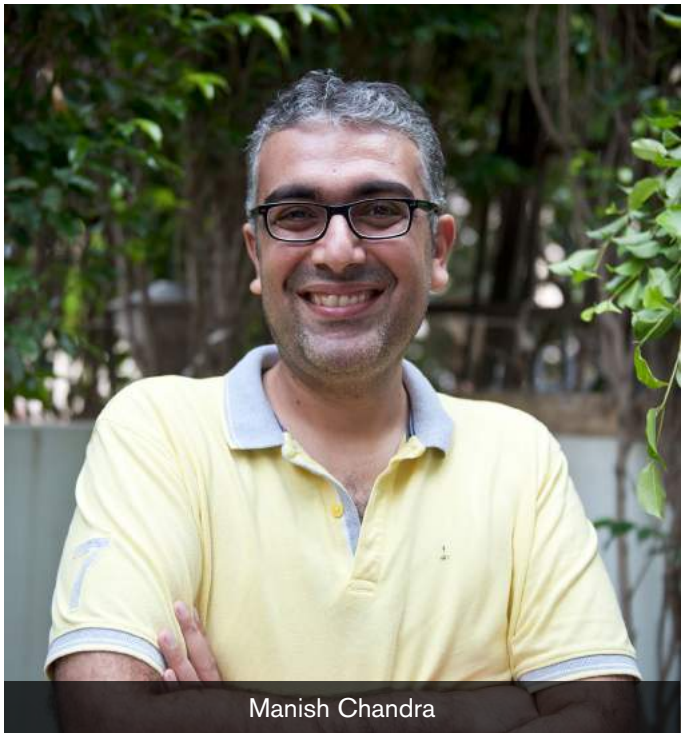
According to a separate Google research, London leads worldwide searches for city and short breaks ahead of Barcelona, Rome, Paris and Amsterdam, with the overall number of searches up by 17 per cent year-on-year.

London also tops Google's search rankings for global cities to fly to.

WHEN TRAVEL MEETS TREATMENT

by Pankaj Chandna & Manish Chandra


Pankaj Chandna


Manish Chandra

Medical travel assistance experts elaborate on the co-dependence of medical tourism and the healthcare industry in India.

It is not always possible to find the medical treatment one seeks in one's own country because of certain factors like waiting lists, availability, underdeveloped healthcare facilities or expense that directly questions individual affordability. At times like these, one decides to explore the unexplored healthcare sectors of other countries. A process of exploration and experience highly stimulated by the need for a medical treatment is commonly known as medical tourism – an industry that is currently thriving in India.

Although the term may have been coined recently, medical tourism existed in the ancient eras as well. Going back in time, the Sumerians (circa 4000 BC) erected the first health complexes around hot springs and thronged by the Greeks, the Mediterranean town of Epidauria emerged as the world's first medical travel destination. Similarly, during the Egyptian civilisation in 1248 AD, Mansuri Hospital in Cairo grew to be the largest and most advanced hospital in the world that was trodden by foreigners from diverse races and religions.

Currently, the medical tourism industry in India is worth $3 billion that, according to a KPMG report, will grow to $10.6 billion by 2019 – a forecast of a growth of 30 per cent in just the next two years. India has already witnessed a significant rise in the inflow of international patients from countries of Africa and the Middle East, Australia, New Zealand, Bangladesh, the UK, the US and CIS countries. In such a flourishing scenario, a medical travel assistance start-up like Vaidam, catering to the needs of those patients, proves beneficial not only to the medical travellers but also to the overall medical tourism industry as well.

Currently, the medical tourism industry in India is worth $3 billion that, according to a KPMG report, will grow to $10.6 billion by 2019.

But out of 195 countries across the globe, why is medical tourism in India in the spotlight?

To find our answer, let us turn our magnifying glasses to the healthcare sector in India.

The healthcare sector in India has developed by leaps and bounds over the past few decades. Specialised doctors hold the expertise and dexterity that are at par with international standards. The use of robotic medical technologies, now available at every hospital in the country, effectively caters to ailments, ranging from cancer to neurological problems to orthopedic fixes. Because of such a progress in the medical infrastructure, hospitals in India have not only achieved

accreditations from national accreditation bodies like NABH and NABL but also JCI, the highest international accreditation certificate any healthcare facility can get. India possesses 36 JCI accredited multi-specialty, super specialty and tertiary care hospitals. As far as alternative medicine and treatment are concerned, Ayurvedic treatments are also promised in the country.

As of now the Indian healthcare industry is worth $100 billion, but Deloitte Touche Tohmatsu India predicts that the industry has the potential to grow at a compound annual growth rate (CAGR) of 23 per cent to $280 billion by 2020. The corporate health sector is estimated a growth of 15 per cent in the year 2017-18.

Moreover, the healthcare industry has also recently geared up for stem cell treatments that provide an effective and non-surgical cure to a large spectrum of ailments, namely osteoarthritis, neuropathy, autism, diabetes, spinal cord injury and others.

It has to be understood that when a patient travels outside one's country, he or she is looking for fast, affordable and available treatment. Besides the statistical facts already laid out, medical treatments, major or not, are cost effective in India. The highly economic prices compel medical tourists to throng the country. For instance, the approximate cost of a heart bypass surgery (CABG) range from $70,000-$200,000 in the US, but suppose one can get the same surgery for just $5,000-$6,000 without compromising on the quality of the treatment. This is one of the major factors for which India is gaining global prominence for medical tourism.

India is gaining global prominence for medical tourism.

Receiving immediate treatment is another attractive proposition in India's favour. Countries like the UK, Canada, Australia, US, France, Spain, Portugal, Germany, Greece and others have a significant presence of waiting lists in their healthcare sectors that delay treatments. Medical tourists arriving in India, on the other hand, can receive the concerned treatments instantly.

A lack of availability of treatments in several countries like Uzbekistan, Kyrgyztan, Yemen, Syria, Mauritius, Qatar and African countries also propel medical tourists to travel to India. Apart from other countries, this year itself has witnessed the inflow of several patients from countries like Yemen, Iraq, Nigeria, Kenya, Cameroon, Uzbekistan and Sudan.

But although the medical tourism industry is booming in India, the need for medical travel facilitators is still indispensable. Starting from scratch, Vaidam Health provides assistance to patients that goes beyond the expected functional criteria of finding suitable doctors and hospitals based on particular ailments. The medical travel assistance company strives to cater to all nuances, such as medical visa and accommodation along with a treatment plan and cost profile from the moment a patient reaches out to the firm.

The significance of medical travel facilitators in the industry lies in providing extensive guidance to patients travelling from countries far and beyond. Limited knowledge about the country in general and regarding healthcare facilities in particular could lead to confusion and helplessness. Therefore, the functionality of Vaidam lies in sweeping the clouds of bewilderment away to provide a clearer picture to medical travellers. While the patient relations team offers valuable information regarding options for suitable hospitals and doctors, expert quotes and assistance in visa application, the operations team looks after every requirement of accommodation, taxi provision and other miscellaneous necessities of the patients while they are in India.

Conceived in January 2016, Vaidam has enhanced its network with doctors and hospitals across India as well as strengthened its international ties with corporates, insurance companies, government and healthcare facilities. Having signed MoUs with 70 hospitals, the company has marked its presence in metropolitan cities like Mumbai, Chennai, Bangalore and Ahmedabad, including Delhi NCR where it is headquartered.

Covering a vast spectrum of treatments ranging from orthopedic and joint replacement to cancer and transplants, IVF, stem cell transplants and treatments to cosmetic treatments, the company has already assisted patients from 35 countries including Kenya, Nigeria, Cameroon, New Zealand, Australia, UK, Iraq, Uzbekistan and also far flung countries of Fiji Islands, Samoa Islands, Guyana and Liberia.

The developing yet fragmented structure of the industry, with many existing medium and small players, and some ongoing research led to the inception of the online platform Vaidam.com. Providing ample information through profiles of doctors and hospitals, the platform also calculates the estimated cost of one's medical travel thereby giving patients an idea about the expense involved.

Vaidam strives to gain global prominence in coming years by concentrating on enriching its online platform so as to make it suitable for all readers and visitors comfortable in various languages.

Pankaj Chandna is Co-Founder of Vaidam, oversees Business Development, Patient, Hospital and Doctor relations.

Manish Chandra is also the Co-Founder of Vaidam and currently oversees Product, Technology and Digital Marketing.

UNLOCKING SECOND HOMES: AN ALTERNATE APPROACH TO HOMESTAYS IN INDIA

by Kavikrut

India's diverse holiday destinations have thousands of locked second homes that can become fully managed vacation rentals, writes an Indian hospitality industry insider.

India has always had very strong tourism potential given our rich cultural and historical heritage, variety in ecology, terrains and places of natural beauty that are spread across the country. And with a growing economy and ever-increasing government initiatives like 'e-Tourist Visa', 'Digital India', 'Make in India' etc, there has been an almost simultaneous increase in demand by business and leisure travellers for clean, affordable and modern accommodation that is easily accessible, comes with predictable quality, available at low prices and across a diverse set of locations in India.

India's Ministry of Tourism has estimated that presently there is a shortage of over 200,000 rooms in the country for both domestic and international travellers. Utilising residential accommodation as homestays or bed & breakfast guest houses is one of the quickest means to fill this shortage. The supply grew at 3.9% in 2016 while the demand grew by close to 11%. The rate of addition of supply is not keeping pace with the rate of growth in demand and the supply shortage is ever increasing.

Excess Homes and the Managed Homestays Opportunity

Goa, one of India's largest tourism destinations, has over 85,000 locked residential homes. And it is estimated that over 1,00,00,000 homes are fully constructed but lying unoccupied in various parts of the country. In September 2017, the estimated unsold home inventory stood at 600,000 units. There are some very interesting reasons for these trends.

Indians have largely invested their savings into real estate as it is seen as a much safer investment option as opposed to other asset classes like financial securities. This has led to many individuals investing in multiple homes as a means of investment because real estate is seen as an investment that would only rise with increasing demand for land. So, it can be said that the growth in housing stock at multiple price points was primarily driven by an investment need rather than the actual need for housing, which is why many houses are lying vacant in the country.

India's markets have a large number of unoccupied homes in both urban and leisure markets and if made accessible as homestays, this could ease the huge travel accommodation supply crunch.

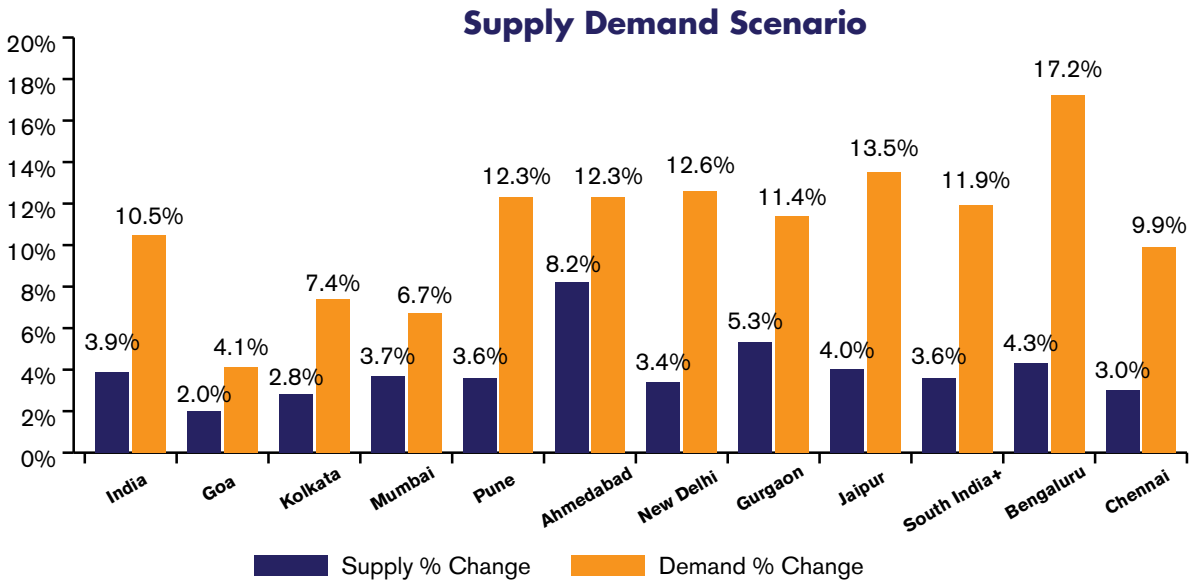
Many people working in metro cities outside of their home-towns have invested in real estate with the intent of returning back to their place someday. Another important trend is the purchase of holiday homes and vacation homes in places like Goa and other leisure destinations where people buy a property with a dual intent of it serving as a place to visit during their free time as well as an independent financial asset investment.

On the other hand, many metros have huge unsold inventory which is not getting sold due to high prices and builders continue to keep prices high in anticipation of demand creating a large chunk of locked unsold inventory which is not finding buyers at those prices.

India's markets have a large number of unoccupied homes in both urban and leisure markets and if made accessible as homestays, this could ease the huge travel accommodation supply crunch.

Vacant Homes – The Managed Homestays Opportunity

While buying and investing in such homes is the relatively easy part for many homeowners, monetisation and maintenance of the property is quite a challenge. Be it Goa, Shimla, Manali, Ooty or any other popular holiday destination, finding long-term tenants or trusted caretakers is usually difficult. Second, homes kept locked become dirty and need repair and arranging for scheduled or on-demand maintenance is not as easy as in the larger cities. So, when the home owners and their family shows up for a vacation, the first few days are invariably spent in cleaning, and repairing the home. Many owners of second and locked homes also live out of the country for the large part of the year and the above challenges and maintenance issues magnify further.



This presents a very clear need for a comprehensive home management service. Multiple global and Indian internet ventures provide the opportunity to book a homestay but almost no venture has gone the extra step to also operate these homestays. Owners need a trusted partner who not only helps monetise the asset but also someone who takes the responsibility of regular maintenance and upkeep.

A professionally managed homestay operation will record all relevant details of the guests checking into the property and collect valid ID proofs as well, thus providing complete visibility into all stays to the law enforcement authorities and transparency to homeowners. This will also mean that such an operation can bring a common minimum standard across India that will lead to top notch guest experience.

OYO Home

OYO, as India's largest brand of hotels, works closely with owners to upgrade their current space and establish enhanced functional aesthetics making these homes more beautiful and comfortable. The revenue-sharing model helps owners receive high returns compared to standalone rentals. There is also a dedicated representative or "Captain" who visits the home regularly to ensure proper upkeep, checking on the guests and responding to their needs.

This is a win-win proposition for the traveller as well. Professional operations management ensures hassle-free check-in and check-out and other associated services. Another advantage is such homes are located in more diverse neighbourhoods than regular hotels. Homes can be near beaches, nestled up on the hills, hidden away in the back lanes of local markets or surrounded by lush green farms. Private homes also come with additional spaces and amenities, like a living room, patio or a swimming pool.

In many cases, these large spaces are available for the same or lower rates compared to hotels. Children and family members can spend quality time together, experiencing the uniqueness of the home they are staying in.

Kavikrut is the Chief Growth Officer at OYO, one of India's largest hospitality companies present in over 230 cities in India, Malaysia and Nepal.

MAKE IN INDIA HAS OPENED DOORS FOR COMPANIES

Alok Shrivastava, Director – Business Intelligence and Planning at Gionee India, talks 'India Investment Journal' through the China-headquartered smartphone manufacturer's trajectory of growth in the country, its Make in India plans and gaining a competitive edge.

How have Gionee's Make in India plans progressed since its entry into the market?

The Make in India campaign has opened doors for the companies to build in India. India is one of the most important markets on the global map of Gionee and we have been seeing exponential growth here, which is only set to increase as we progress on our manufacturing plans in India.

Starting from last year, all Gionee devices sold in India have been manufactured in India as well. At present, we are in negotiation with the government. After it finishes, we shall have a fully operational manufacturing plant in Noida, thanks to the government's support through Make in India campaign.

What makes India an attractive manufacturing hub for smartphones?

The support extended by the Indian government and the investor-friendly policies adopted by various states are some of the advantages that make India an attractive destination for establishing manufacturing units here.

Furthermore, smartphone penetration is lesser than 30 per cent in the country right now, which creates huge potential for companies to secure and expand their customer base in the country.

Are there hurdles that need addressing for India to take a global lead as a manufacturing base for international brands?

At Gionee, we have been nurturing the vision of establishing an entire eco-system around the smartphone manufacturing and retail business, by not just setting up our own

manufacturing unit but also establishing ancillary facilities like hardware and accessories suppliers, design houses and R&D in India.

The push by Prime Minister Modi's government to promote local manufacturing of phones in phases is a welcome step. It will mean that all phones sold for Indian consumption will be made in India too. However, since the plan is in phases, accomplishing 100 per cent of local manufacturing for handsets would take some time to achieve.

How do you see the mobile phone market develop in India over the next few years?

India is one of the fastest-growing smartphone markets in the world and we are positive it will become a huge landing ground for innovation in the smartphone segment as the market is already on the cusp of a technological revolution.

Furthermore, the government has initiated various programmes leading the country to leapfrog to a paperless and cashless ecosystem, which further reinforces the use of smartphones. All of these factors, combined with the government's initiatives to establish India as a manufacturing hub for smartphones, will lead to a great deal of development in the sector.

India is one of the most important markets on the global map of Gionee and we have been seeing exponential growth here

Is the strong competition between service providers a welcome development?

The service providers in the market have been developing a strong but healthy competition. It is a welcome move for the customers, leading to dropping tariffs and an array of offers from them to choose for.

The competitively reasonable tariffs for 3G and 4G data plans are fulfilling the digital aspirations for a lot of customers who can now afford a smartphone and are also looking to explore high-speed data surfing and web browsing on their phones.

In fact, we at Gionee India also partner with select service providers from time to time to empower our customers with value-added services on specific devices.

Having said that, for the telecom industry, falling revenues might be a short-term concern. However, the telecom industry is a scale business and there is immense scope for all the players to grow and make profits even with low tariffs.

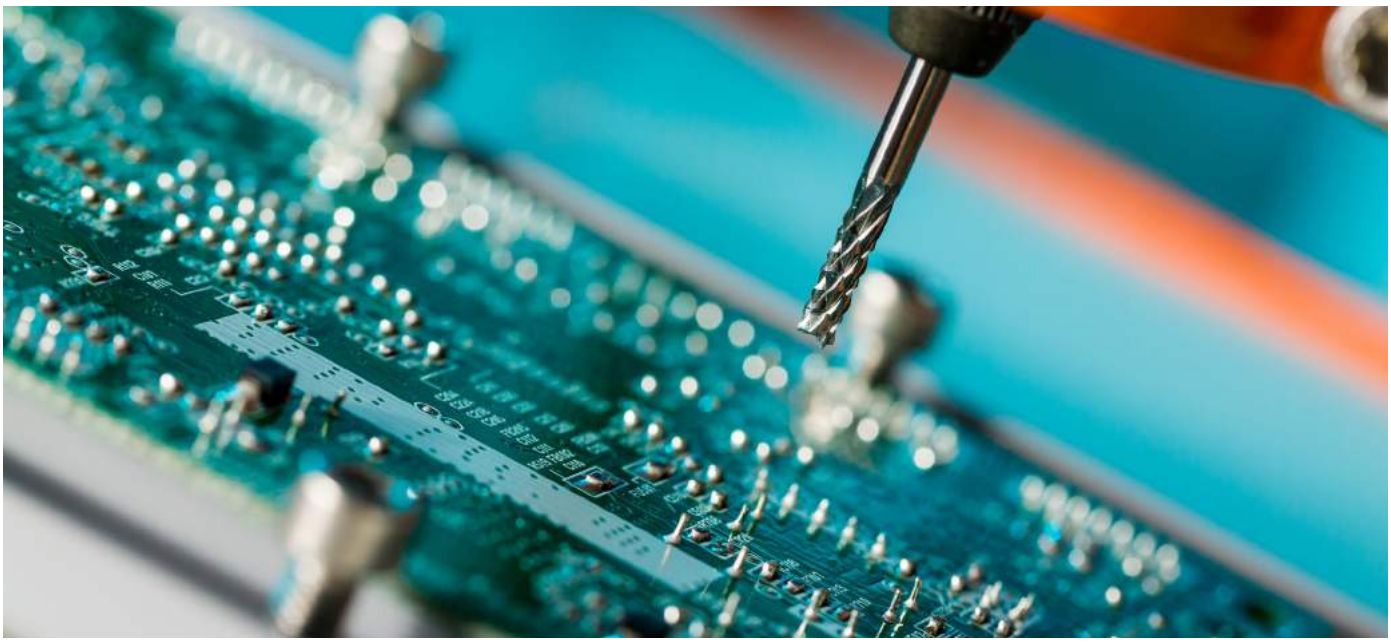
What are some of Gionee's future plans for India?

We will be focusing on a two-phase strategy. Starting from now until March 2018 will be in our Phase 1, wherein we will be targeting volume sales of 1 million per month with increased spends on BTL (below the line) activities in our marketing budget.

In our second phase that will follow post ensuring we have reached out to all prospective customers with our offerings, we will focus more on getting conversions at the counter.

How do you set your brand apart within a virtually flooded market for smartphones?

While more and more phone brands in India are looking at virtual sales and online-only products, we at Gionee India do not believe in flash sales and have steadfastly followed a different approach. Our focus is being an intuitive brand and knowing what keeps our customers happy and satisfied.



Decoding the same, we aim to provide them with the best of innovation backed with a direct and long-term connect with them.

We emphasise on establishing a strong connect with the customers which we continue to build on even after the purchase. As a result, we have a presence in more than 42,000 retail outlets across 2,200 cities across India that we are looking to grow to 50,000 outlets. Also emphasising largely on offline retail in India, we do not allow online sales unless e-commerce players agree to sell at the price set by us, hence ensuring our customers get the best of our innovations at the most reasonable prices.

The Mobile Revolution

India is among the fastest-growing mobile phone markets in the world. Here is a snapshot of what makes this sector so vibrant.

Smartphone manufacturing:

- India is the **2nd largest** smartphone market in the world in terms of number of users
- Contribution of mobile industry in India to the **GDP – 6.5%**
- Direct/Indirect employment generation for **4 million** people
- Domestic manufacturing
- **2016-17 - 940 billion**
- **2019-20** (Estimated) – **1,350 billion**
- **96%** of mobile phones sold in India will be manufactured locally by 2020
- Uttar Pradesh, Andhra Pradesh & Telangana are emerging manufacturing hubs

Source: The Internet and Mobile Association of India (IAMAI) & Enixta Innovations

Global players in India:

Apple, vivo, LeEco, mi, 1+ ONEPLUS, HUAWEI, oppo, GIONEE, InFocus, LG Life's Good, SAMSUNG, Lenovo, ASUS, Panasonic, NOKIA, coolpad

SWOT Analysis for Indian Smartphone Manufacturing Ecosystem:

Strengths

- Presence of skilled Labour
- Presence of Qualified Engineer
- Large Consumer Base
- Presence of IT companies
- Proactive Current Govt

Weakness

- Poor Infrastructure
- Low R&D Spend
- High freight cost
- High utility cost
- Poor Labour laws
- Absence of local component base

Opportunities

- Low Tariff rates
- High penetration of Data Services
- Less penetration in Rural areas
- Low usage among various Groups

Threats

- Global Competition
- Less developed technology
- Difference in specs and price rates
- E-waste management

Incentive schemes for mobile phone manufacturing in India

Haryana

-100% Refund on stamp duty.
-50% Concession on external development cost
-75% Concession on electricity duty
-75% Reimbursement of VAT/SGST
-Collateral free loan with 5% interest subsidy

Rajasthan

-50% exemption on stamp duty and registration fee
-50% exemption from electricity duty for 7 years
-75% investment subsidy for four years, 60% for next 3 years and 50% for next 3 years on VAT and CST
-25% reimbursement of CAPEX (excluding land)
-10% subsidy of VAT & CST for 10 years to promote employment generation.

Gujarat

-100% exemption on stamp duty and registration fees.
-Uninterrupted power supply, tariff subsidy at INR 1/Unit for 5 years.
-100% exemption on electricity duty for 5 years
-Reimbursement on net tax paid limited to 90% of gross fixed capital investment
-100% reimbursement of VAT/CST for 5 years
-25% subsidy on project cost (up tp 10 crores)
-Interest subsidy of 7% for MEMEs and 2% for large industries for 5 years.

Madhya Pradesh

-100% exemption on stamp duty
-75% rebate on purchase of land from state ageny within EMC
-100% VAT refund subject to 100% capital investment except in land (10 years)
-15% reimbursement of CAPEX excluding land
-Interest subsidy of 5%/annum for 7 years up to INR 1 crore/annum per unit

Andhra Pradesh

-100% Reimbursements on first transaction and 50% thereof on secound tarnsaction.
-25% rebate on land cost subject to maximum 10 lakhs per acre in industrial park sez EMCs.
-100% exception on electricity duty and INR 50 lakhs subsidy on power for 5 years.
-100% Reimbursements of VAT/CST for 5 years.
-25% reimbursement of capital expenditure excluding land and 10% for technology upgradation
-5% per annum for 5 years upto INR 5 lakhs per year

Uttar Pradesh

-100% exemption on Stamp Duty and Registration Fee.
-Rebate of 25% on Prevailing sector rate on purchase of land from state agency within EMC
-100% VAT refund subject to 100% capital investments other than land for 10 Years.
-15% reimbursement of capital expenditure excluding land.
-5% per annum for 7 years up to 1 crore per annum per unit.

West Bengal

-100% exemption on Stamp Duty and Registration Fee.
-100% exception on electricity duty for 5 years and 7 years depending on the locations
-12% and 15% of the fixed Capital Investment,subject to a limit of 4.5 Crore
-25% of the annual liability on the term and/or one month salary up to INR 2000 of 750-1000 employees amounting up to 1.5 crore per year for 7 years.
-50% (for Large & Medium Enterprise) and 75% (for Small & Micro Enterprise) of employers contribution in ESI & EPF.

Chhattisgarh

-100% exemption on stamp duty and sale to another IT unit.
-80% rebate on land premium
-35% cheaper electricity charge than all over India average.
-12 years of electricity duty Exemption
-100% entry Tax/CST reimbursement for 10 years
-50% Fixed Capital Investment Subsidy up to INR 150 Lakh.
-75% Interest subsidy for 8 up to INR 110 Lakhs per unit per annum.

Telangana

-100% exemption on stamp duty
-25% subsidy on lease rentals for 10 years.
-100% exception on electricity duty for 5 years.
-25% subsidy on power for 3 years.
-100% reimbursements of VAT/CST for 5 years.
-20% investment subsidy up to two crores for first 25 companies.
-5.25% per annum on term loan for 5 years

Karnataka

-50%-100% Exemption on stamp duty and registration fee based on the nature of agreement.
-100% concessions on land use conversion charges.
-100% exception on electricity duty.
-Interest free loan, up to 75% of the VAT.
-15%-25% reimbursement of capital expenditure excluding land.

Source: 'Maximising Local Value Addition in Indian Mobile Phone Manufacturing' by IIM Bangalore & Counterpoint Researchers

Impact of Chinese players in the Indian market

In Q1 2017, China-based vendors captured 51.4% share of the smartphone shipments in India, with 16.9% sequential growth and 142.6% growth over the same period last year.

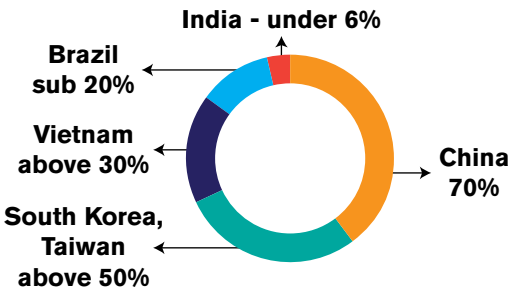
Almost two-third smartphones sold by China-based vendors are in the price range of **$100-$200** in India.

62.2% of devices shipped by China-based vendors are equipped with 13 Megapixel and more as primary camera.

The focus of China-based vendors remains on bigger screens.

Local value addition

This is how major manufacturing hub are rated for locally-sourced components used by manufacturers for local manufacturing.



Indian Players:

Celkon | Iball | Intex Technologies | Karbonn Mobiles | Jivi | iTel | Lava International | MTech | Xolo | Micromax Informatics | Spice Mobiles | Onida Electronics | Videocon | Reliance LYF

Mobile handset market in India

by Tarun Pathak

Digital India in sync with Make in India will enable local innovation in the mobile phone market, writes a telecom analyst.

Indian mobile phone demand was catalysed by the entry of international brands like Samsung and Nokia during 2006-2010. The market at the time was predominantly driven by feature phones. The scenario changed fast with the introduction of Android phones by international brands in 2009 and later by local brands since 2010. The advent of smartphones propelled mobile phone growth especially in the "mobile first" economies such as India.

During 2010-2014, the Indian brands like Micromax, Karbonn, Intex, Lava and others brought innovative features in the market tailored to local needs and preferences, from dual sim to large battery to music phones to 3G/4G powered smartphones at affordable price points. During 2011-17, the number of smartphone users increased nearly 15 times from 25 million users to 370 million in 2017. However, smartphone penetration is still 47 per cent, considering the total number of mobile handset users and even lower considering the market potential with 1.3 billion population of the country.

Having said that, the market is growing in absolute volume terms, and we forecast eight out of 10 mobile phones sold in India in 2020 will be smartphones.

India in Context of Global Mobile Phone Market

India recently surpassed the US to become the second-largest smartphone market in the world in terms of active users and it also remained one of the fastest-growing markets in the world. The Indian smartphone market grew 19 per cent in calendar year (CY) 2016, much higher than other major countries like US, China, Indonesia and Brazil.

The high potential for growth makes the Indian market attractive for hundreds of brands to enter every year and generate scale as demand in their existing markets nears saturation.

Approximately a billion smartphones are expected to be sold in India over the next five years, driving the number of smartphone users beyond the 600-million-mark, which implies almost 55 per cent of the population will have a smartphone. These trends in predicted market expansion, present a substantial opportunity for every player in the mobile value chain when the second-largest mobile phone market by volume is still under-penetrated and growing, while smartphone demand has waned for the rest of the world. The high potential for growth makes the Indian market attractive for hundreds of brands to enter every year and generate scale as demand in their existing markets nears saturation.

While urban India has seen significant mobile phone adoption, the gap between urban and rural tele-density is still significant. As per Telecom Regulatory Authority of India (TRAI), the overall tele-density in India at the end of Q2 2017 was 92 per cent, with urban tele-density at 168 per cent and rural tele-density at 57 per cent out of the total subscription base of around 1.18 billion.

This suggests that the next wave of growth will be driven by growth in rural India, fuelled by growing smartphone

Smartphone Growth (Y-o-Y, CY16, CY17)	China (Mainland)	India	US
2016 Growth (in %)	6.1%	18.9%	1.1%
2017 Growth (in %)	0.1%	10.0%	6.0%

penetration and further catalysed by the rollout of LTE networks. In addition to this, the government has launched certain initiatives such as Digital India, that aims to bridge the rural-urban digital divide. Programmes such as Make in India in sync with Digital India will enable local innovations with the potential for many new digital start-ups to enable deeper integration of local features and services. Thus, locally manufactured cheaper mobile phones integrating ubiquitous cellular powered internet connectivity with localisation of content and services, can engage the next hundreds of millions of users to drive the digital revolution in India. The growing digitally connected smartphone user base – will drive revolutionary digitisation across the e-governance, healthcare, banking, education and entertainment sectors.

Smartphone Growth in India

1. Growth of Chinese Brands

The competitive landscape has changed radically over the past few years in India. Today, close to 170 brands compete in the market with the top 20 brands capturing some 85 per cent of the total volumes. In terms of rankings, Samsung and local Indian brands dominated the overall phone and smartphone market for the past few years, but the smartphone rankings have been quite volatile for the past few quarters due to the growth of Chinese brands.

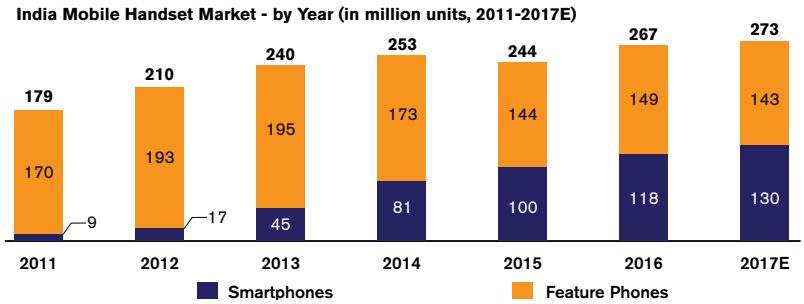
Understanding Indian consumers was the key challenge for Chinese OEMs, which Chinese brands have overcome well enough. They identified the gap and created an opportunity to cement their place within the market. A year ago, Indian OEMs such as Micromax, Lava, Intex and Karbonn were among the top five OEMs in Indian smartphone market; however, they were displaced by Chinese OEMs within a year.

One of the key reasons for the growth of Chinese brands is their affordable flagship offerings with stand-out features including strong design language and their ability to leverage deeper access to the Shenzhen-based manufacturing and supply chain ecosystem. It is important to understand how the Chinese mobile phone ecosystem has developed and how they have transformed "Made in China" over the last decade.

Chinese brands and the entire supply chain have risen significantly on the mobile phone and smartphone experience curve. Chinese suppliers are now experts in hardware design, software and user interface integration. They have built a robust original design manufacturer (ODM) and supplier network. This has been possible due to local original equipment manufacturers (OEMs) investing heavily in local manufacturing, R&D backed by government incentives, favourable policies cashing in on strong domestic demand as well as export consumption.

Once part of a robust integrated ecosystem, these manufacturers have expanded beyond home markets into new markets, such as India, by leveraging their product expertise. Furthermore, these brands have also been aggressive in terms of their device launches and capturing key marketing trends to offer well-designed products at competitive price points with clever marketing and robust channel strategies.

At the entry-level segment, Indian brands have been at par with the Chinese brands, however, average selling price (ASP) of smartphones jumped from $135 to $170 within a year. Most of the Chinese brands are competing in the $75-$200 price segment, which is important in the overall contribution to sales. This segment used to be dominated by local Indian brands and global brands such as Samsung. But Chinese brands were quick to grab the opportunity, while Indian brands were late to react to the changing market dynamics and failed to catch the eye of Indian consumers. Chinese players had strong access to the Shenzhen ecosystem and better supplier relationships. This helped them to quickly align their portfolio to the bestselling price-points, whereas, for Indian brands it meant scaling up and expanding their portfolio in new price segments which impacted their go-to market strategy especially after demonetisation impact. Apart from this, Chinese players also outspent their rivals backed by aggressive marketing campaigns. Although some Indian brands (such as Karbonn and Celkon) had weaker portfolio in budget category smartphones, other Indian brands (such as Micromax, Intex and Lava) came up with stronger portfolio in that category which helped them regain some market share in Q3 2017.

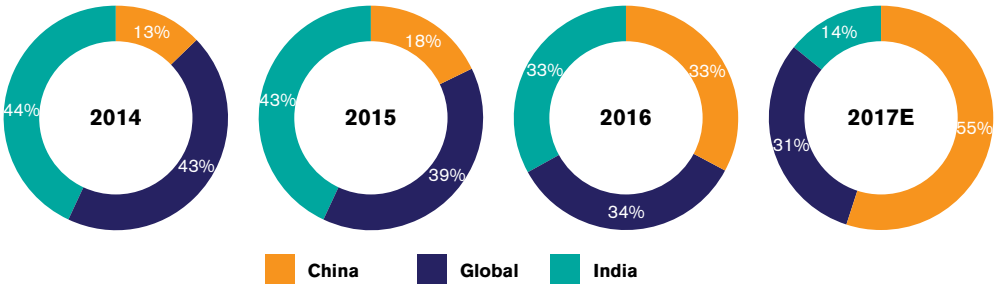


Indian brands can benefit from the Make in India and Digital India initiatives from the government to take control of manufacturing rather than depending on outside ODMs to design and manufacture their products. To succeed, local brands must develop strategies that allow the development of sustainable competitive advantages while also neutralising the threats from Chinese brands. This calls for innovation and investment in R&D, building in-house capability with greater possibility of localization, quality control and differentiation.

2. Rise of Online Channels in India

Back in 2014, Flipkart experimented with an exclusive online launch of Motorola's Moto G series. Moto G series did well, and other brands recognized the potential of online channels, especially Chinese OEMs looking to penetrate the Indian market. Online channels were a safe bet for Chinese OEMs, as they required reasonably lower investment as compared to offline channels. Online platforms also provided OEMs with an easy entry into Tier II, III cities where brand consciousness was relatively less than metros. This helped them minimise delivery time to consumers in a vast country like India. Realising the opportunity, ecommerce firms such as Flipkart and Amazon also invested heavily in distribution capabilities, including fulfilment centres and logistics partners across India. Unlike 2014, OEMs are leveraging different ecommerce platforms

Smartphone Market Share-by Brand Origin



Smartphone Shipment Market Share	Q3 2016	Q3 2017
Samsung	23%	23%
Xiaomi	6%	22%
Vivo	5%	9%
Oppo	4%	8%
Lenovo (including Motorola)	9%	7%
Others	53%	31%

for different devices now, with each OEM having an exclusive ecommerce partner for each model. To drive the sales further, ecommerce platforms are now organizing online sales events such as Flipkart's Big Billion Day and Amazon's Great Indian Festival, like Black Friday in the US and Singles Day in China.

Online consumers are known to be smart consumers who usually compare products at different levels before making a purchase decision. However, among all the smartphone brands sold through online channels, Xiaomi is one brand that totally stands out from the crowd. In last one year, Xiaomi's market share increased from 6.3 per cent in Q3 2016 to 22 per cent in Q3 2017 making it the second highest selling brand after Samsung. Xiaomi has dominated the online channels while accounting for nearly 50 per cent of the total smartphone sales. With focus on spec-heavy smartphones in cost sensitive price bands, it has been successful in luring Indian consumers. Xiaomi was smart enough to hit the sweet spot by offering best deals at cost sensitive price bands that drive the volume sales. Xiaomi's Redmi Note 4, Redmi 4 and Redmi 4A were top smartphone models in Q3 '17 with highest shipments

% of Smartphone Shipments Domestically Manufactured-by Brand and Brand Origin (in %,July 2017)

Global		Chinese					Indian	
Samsung	Apple	Xiaomi	Vivo	Oppo	Gionee	Motorola	Lava	Micromax
100%	22%	100%	100%	100%	100%	77%	100%	84%

targeting budget segment. In case of Samsung, Galaxy J2 and J7 has been their key offerings in the same price band. There is a significant difference in smartphone specifications between the key offerings within these price bands. Hence, Samsung must come up with a different value proposition within these price bands to regain the attention of Indian consumers.

3. Chinese firms driving the 'Make in India' campaign in smartphones

The Indian government also aims to make China-like ecosystem, which will include component level manufacturing. At present, majority of the brands are importing mobile phone components in SKD (semi-knocked down) form and assembling them in India. However, not all brands have been able to achieve assembling of a 100% of smartphone shipments sold in India. On that note, Chinese firms are leading from the front under the 'Make in India' campaign. They were quick to set-up assembling units in India (as compared to Indian brands) and now they plan to further localize the manufacturing by setting up SMT (Surface Mount Technology) lines, to localize local assembly of PCBs (Printed Circuit Boards) – a major cost component of smartphones.

Growing Investments

At present, India is one of the most attractive investment destinations for mobile phone manufacturing. Nearly 95 companies have set up their manufacturing units in India, within a short period of time, manufacturing over 100 million mobile phones in India. Majority of them have chosen Noida as their location, making the city a mobile phone manufacturing hub. Several EMS (Electronics Manufacturing Service) players have also come forward, considering the volume of opportunity. These players include global manufacturing leaders such as Foxconn, Wistron, Flextronics, Jabil, etc. Overall, the industry has attracted more than half a billion dollars of capital investments, with a significant investment from Taiwanese ODM Foxconn operating under the name of "Rising Star India", with facilities in Sri City and Pune.

Future Outlook

Going forward, we expect the Indian market to grow significantly, especially in the case of smartphones. Existing players are realigning their market strategies to further penetrate online and offline channels. Also, Jio's disruption with its 4G feature phone can prove to be a game-changer, considering the price sensitive Indian consumers. Hence, we can expect further changes in existing market placement of Indian, Chinese, and Global OEMs. The aggressive approach by existing brands is expected to drive innovation and manufacturing localisation in line with the Make in India campaign. Together, existing market forces are expected to benefit the Indian consumers in future.

Tarun Pathak is an Associate Director with Counterpoint Technology Market Research and India-based telecom analyst.

INDIA TO RETAIN SECOND SPOT AMONG WORLD'S SMARTPHONE USERS

The country will hit 530 million smartphone users by 2018, behind China's 1.3 billion but ahead of the US figure of 229 million, a latest analysis finds.

In 2018, 66 per cent of people across 52 countries will own a smartphone, up from 63 per cent in 2017 and 58 per cent in 2016, according to Zenith's 'Mobile Advertising Forecasts 2017' report, published recently.

The US-based analysis firm found that the top three countries in terms of smartphone usage will remain broadly the same as the market matures around the world. The country with the highest number of smartphone users will remain China, with 1.3 billion users, followed by India, with 530 million users. The US will be third, with 229 million users.

The rapid expansion of smartphone ownership across the world, which has transformed the way that advertisers communicate with consumers, is slowing down as penetration reaches between 80 and 90 per cent in the most advanced markets. The number of smartphone owners will increase by 7 per cent year on year in 2018, compared to 10 per cent growth in 2017, 14 per cent in 2016 and 21 per cent in 2015.

While the more advanced markets hit saturation point, countries like India hold the maximum growth potential which in turn makes the market attractive to advertisers keen to target the country's booming middle class.

Mobile devices (including both smartphones and tablets) are now the primary means of accessing the internet for most users.

Jonathan Barnard, Zenith's Head of Forecasting and Director of Global Intelligence, said: "For most consumers and advertisers, the mobile internet is now the normal internet. The ownership of mobile devices is beginning to saturate in some markets, but there's plenty of room for further growth across the rest of the world."

The spread of smartphones and other mobile devices

is increasing the number of contacts between brands and consumers, by giving consumers new opportunities to connect to media content wherever they are, at any time in the day. Some of these contacts take the form of paid advertising in third-party content, but mobile technology is also enabling broader brand experiences, such as branded content and social media engagement.

Western Europe and Asia Pacific continue to lead the world in smartphone ownership. Zenith predicts that five markets will have smartphone penetration above 90 per cent in 2018: the Netherlands (94 per cent), Taiwan (93 per cent), Hong Kong (92 per cent), Norway and Ireland (each at 91 per cent). As many as 11 markets will have penetration levels between 80 per cent and 90 per cent, all of them in Western Europe and Asia Pacific with the exception of Israel, where penetration will be 86 per cent.

It also highlights that tablet ownership is much less common than smartphone ownership, partly because they are more likely to be shared within households, and partly because consumers in some markets prefer to use larger smartphones instead. Tablets have not caught on at all in China, where the estimated their penetration is just 4.8 per cent this year, compared to 85.4 per cent for smartphones. In countries like Thailand, tablet penetration is in fact declining.

Tablet ownership varies widely across the 52 countries in the report; it exceeds 50 per cent in 12 markets, and is lower than 10 per cent in seven. Tablet ownership is most common in the Netherlands (74 per cent), Australia (66 per cent) and Ireland (65 per cent).

Globally, the analysis estimates tablet penetration at 18.7 per cent this year, up slightly from 17.8 per cent in 2016. It appears to be stabilising at about 20 per cent: with forecasts of penetration levels of 19.5 per cent in 2018 and 20.1 per cent in 2019.

Mobile devices (including both smartphones and tablets) are now the primary means of accessing the internet for most users, and will account for 73 per cent of time spent using the internet in 2018, up from 70 per cent in 2017 and 65 per cent in 2016. Mobile internet use has doubled since 2011, when it accounted for 36 per cent of all internet use. By 2019, this is expected to account for 76 per cent.

The amount of money spent on internet ads going to mobile ads has overtaken the amount spent on desktop ads for the first time this year. The report estimates that 53 per cent of all internet ad spend will go to ads viewed on mobile devices in 2017, and the forecast shows that the proportion will rise to 59 per cent in 2018 and 62 per cent in 2019. In 2019, mobile ad spend will total $156 billion, and account for 26 per cent of ad spend across all media.

Vittorio Bonori, Zenith's Global Brand President, said: "Because the internet is now mobile, brands have the opportunity to use it to communicate to consumers during more of their lives – when they are shopping, socialising and travelling as well as when at their desk.

"By reaching consumers at the right occasions with tailored messages, brands can guide them through the consumer journey more effectively."

The 52 countries covered by the definitive annual report included Argentina, Australia, Austria, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Canada, China, Colombia, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovakia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Ukraine, the UK and the US – which collectively represent 65 per cent of the world's population.

SHORT TAKES

India takes top spot for Nokia

India has become the largest market for the Nokia globally in terms of sales, followed by Russia and Indonesia.Nokia, now owned by Finnish company HMD Global, will be banking on India for its resurgence at a time when the market is dominated by Chinese heavyweights such as Xiaomi, Vivo, Oppo and Huawei. Florian Seiche, the newly-appointed CEO of HMD, told Indian media that the company's engagement will grow manifold in India, especially as more and more mobile companies look at striking partnerships with device makers for budget devices.He said that Nokia, which is sourcing devices in India from contract manufacturer Foxconn's factories, is keeping a close watch on developments in the market."Our whole business model is built on partnerships, and we are looking at further engagements. We are waiting and watching," he said, when asked about any possible tie-ups with mobile operators such as Jio, Airtel or Vodafone. Smartphones is another key area of focus for the company, now that it is armed with Google's android system.

Xiaomi to invest in ShareChat

Chinese mobile phone manufacturer Xiaomi and its founder Lei Jun's venture capital fund Shunwei Capital are in final stages of investing around Rs 120 crore ($18 million) in regional language social networking platform ShareChat, founded in January 2015 by IIT-Kanpur graduates Farid Ahsan, Bhanu Singh and Ankush Sachdeva.

The app is available on Android phones and offers its content in eight regional languages with English noticeably missing as an option. ShareChat claims to have 1.3 million daily active users and 4.2 million monthly active users and has been on the radar for a bunch of venture investors.

Ahsan recently told Indian media that they were on a mission to capture the next billion internet users who will come from the smaller cities and rural India.

"This is a young and aspirational set of population which is coming on to the internet now thanks to cheap smartphones and easy availability of mobile data. They are very different from people in the big cities who have been using emails and social media for almost a decade. We want to cater to this fast growing group of users," he said.

Bharti Airtel partners with SK Telecom

Indian telecom operator Bharti Airtel announced a strategic alliance with Korea's SK Telecom this week that would allow Airtel to leverage SK Telecom's expertise to build an advanced telecom network in India.

Airtel said the partnership will work across several areas, including developing bespoke software to dramatically improve network experience, leveraging advanced digital tools including machine learning, big data and building customised tools to improve network planning based on every customer's device experience.

The two companies will also collaborate on an ongoing basis to evolve standards for 5G, Network Functions Virtualisation (NFV), Software-defined Networking (SDN) and Internet of Things (IoT), and jointly work towards building an enabling ecosystem for the introduction of these technologies in the Indian context.

According to Sunil Bharti Mittal, Bharti Airtel chairman, this partnership will bring a dramatically improved experience to Airtel customers in India by leveraging the expertise of a company that he claims has built one of the best mobile broadband networks in the world.

China's Comio to invest in Noida

Chinese smartphone maker Comio is planning to invest Rs 150 crore ($23 million) in a greenfield manufacturing and assembling unit in Noida by the end of this financial year.

The new plant will manufacture smartphones and accessories, including batteries and chargers for the Indian market. The initial plant capacity will depend on the response to the products in the coming months.

Currently, the company is sourcing smartphones through contract manufacturing in the National Capital Region (NCR).

This year, Comio is aiming to sell about a million pieces and clock a turnover of Rs 600-700 crore ($92-108 million) and is targeting a turnover of around Rs 4,000 crore ($615 million) by 2019-20.

Apart from retailers, the company is banking heavily upon social media marketing to reach out to its core audience of youth, which includes collaborating with social media celebrities. It has tied up with 15,000 retailers, 400 distributors and 400 service centres across India as well, besides e-commerce and online portals. Comio is a brand of its parent company, Hong Kong headquartered Topwise Communication. It is a leading original device manufacturer (ODM) in China, and amongst the top three printed circuit board (PCBA) manufacturers.

Lenovo-Motorola deepens India focus

US-based Lenovo Group has doubled its manufacturing capacity to 12 million units a year for both Lenovo and Motorola brands.

Aymar de Lencquesaing, executive vice-president at Lenovo Group, and chairman and president at Motorola, expects double-digit growth for Lenovo and Motorola phones in India, and is willing to scale up manufacturing capacities if the need arises.

motorola
a lenovo company

Lencquesaing said: "India is one of my top five strategic markets, so we will continue to over index on the focus on investment and to that end, we have recently doubled our production capacity, which will hold us for some time.

"We will invest again to increase the capacity of the plant where we manufacture all of our products."

The company has contracted US-based Flex to make phones out of Chennai for both Lenovo and Motorola brands.

At over $1 billion revenue, as of June last year, India was contributing a little over 10 per cent to the company's global revenue.

Having launched 13 models since June this year, and experienced a 100 per cent sequential growth in volume in the just ended quarter, the company said it was on the right track to regain market share, despite headwinds being seen by other players.

Apple supplier Wistron eyes India expansion

Wistron Corp, Cupertino-based Apple Inc.'s primary iPhone assembler in India, is scouting for around 100 acres of land in Bengaluru to expand its facilities for the company.

The Taiwanese manufacturer, which began making the iPhone SE in India this year, may use the facilities to supply other brands too.

Apple has been a minor player in India, the world's fastest growing smartphone market, largely because its phones are more expensive than those of rivals such as Samsung Electronics Co. and Xiaomi Corp.

Apple's devices are particularly expensive in India because the government levies tariffs on devices manufactured outside the country. Its manufacturing in India has been limited to small volumes of the SE, a lower-end smartphone.

Apple is in negotiations with the Indian government over expanding manufacturing facilities and opening its own retail stores. The two sides have been meeting regularly to consider the phone-maker's demands, which include exemption from duties on capital equipment, removal of customs duty barriers and the ability to import used iPhones to refurbish and export.

A platform to attract UK's small and medium enterprises (SMEs) to invest in India is set to transform the economic partnership.

ACCESS INDIA:
A new trade & investment window

by Vivek Sonny Abraham

India and the UK traditionally have had strong economic linkages, both on the trade and investment front. According to official statistics from the Department of Industrial Policy and Promotion, Government of India, the UK has, until recently, been the third-largest investor in India, just behind Mauritius and Singapore.

The quantum of UK investment in India has been large, but what it has boosted greatly is employment in India. It has created more than 371,000 jobs between 2000 and 2016, and the total employment generated by British companies in India is about 788,000, which forms 5.3 per cent of the total organised private sector jobs in India. Invest India, the national investment promotion and facilitation agency of India, has been working closely with UK companies to set their investments up in India.

Recently, however, the UK dropped one rank to fourth place behind Japan on the list of countries investing into India, and now has cumulative investments of $24.7 billion since April 2000. The trade between India and the UK has also seen a similar dip in the recent past. From $15.8 billion by the end of FY 2014, the total trade has come down to $12.2 billion by the end of 2017.

India is perceived as a preferred destination for investments due to multiple factors: a huge market, availability of a skilled talent pool, a stable political system and a widespread prevalence of the English language. Apart from this, many British brands such as JCB or Horlicks have been in India for so long that they are now household names.

If India is to ensure a steady growth in investment and employment generation in India from UK investments, it must focus on the British SME sector.

Most large companies from the UK already have a significant presence in India. Now, they are building long-term plans to further invest in India as their strategy shifts towards focussing on India.

Focus on SMEs required

However, the British small and medium enterprise (SME) sector, which forms 99 per cent of the British private sector, has mostly not explored its options outside the UK, let alone India. These SMEs possess the core high-end technologies and innovative products. If India is to ensure a steady growth in investment and employment generation in India from UK investments, it must focus on the British SME sector.

The British SME sector must also start looking outward. They need to build a strategy to expand or insulate themselves from global vagaries to survive, especially in the context of Brexit. British SMEs must seriously consider investing in India to guarantee their survival and avoid being left behind other competitive economies who have been investing in India.

Access India Programme

Those SMEs considering entering India now have the Access India Programme (AIP) to provide substantial support to their market entry. This programme, recently launched by the High Commission of India in the UK and the UK-India Business Council (UKIBC), is aimed at British SMEs looking to invest in India.

The Access India Programme will identify high-potential UK SMEs and assist them in establishing themselves in India.

As part of the programme, a wide range of information, workshops, networking and business support services under a single platform will be available to the SMEs. The programme will also provide mentoring support to make their first steps in India strong and effective.

Launch of Access India in London

The services under the programme include strategy advisory, operational market entry support, tax & legal support, financial services, project financing, mergers and acquisitions (M&A), partner search, location services, technology collaboration, facilitation of approvals from central & state agencies and access to government agencies. The market entry of the selected companies shall be closely supervised to ensure success.

The Access India Programme will support a select group of high potential UK SMEs that are at an advanced stage of market entry planning, with a clear intent for localisation. However, companies that are still at an early stage of market entry but possess medium to long term potential for localisation and manufacturing in India shall also be considered for support. Technology companies interested in partnering with Indian companies/institutions for technology tie-ups will also be supported under the programme.

The programme will be delivered by the High Commission of India in London along with the UKIBC and selected empanelled expert programme partners and mentors. Invest India is the lead facilitation partner in India, and large British companies invested in India, such as Rolls Royce and JCB, are the programme mentors.

Key banks, law firms and consultants active on the UK-India business corridor have also been recruited to the Programme. SMEs, part of this programme, have the advantage of availing detailed support at no cost.

However, specific advice for a client, like market study for a specific product or partner identification and due diligence, can be availed from the partners, at a subsidised cost. Alternatively, any client can seek advice from their own advisors.

Separately, Invest India, as part of its mandate, also hand-holds investors in India through the entire investment journey, and their teams of domain experts have been working with UK companies to facilitate their expansion.

The Access India team, in the High Commission of India and UKIBC, is currently organising several outreach events across the UK to create awareness of the programme among the SMEs. Recently, the Consul General of India, Birmingham, along with Invest India, and the British Deputy High Commissioner at Chennai, spent five days doing presentations across seven locations in the Midlands. The delegation presented on the India opportunity, the Access India Programme and its benefits. The reception in these outreach events was very positive, with encouraging feedback mentioning that this programme is much needed to support the SMEs who have not been able to transition into the next level of growth.

Next Phase of Growth

India and the UK remain committed to working together to substantially increase trade and investment opportunities. During Indian Prime Minister Narendra Modi's visit to the UK in 2015, and British Prime Minister Theresa May's visit to India in 2016, the two Heads of State agreed to continue working towards strong, sustainable, and balanced growth, and agreed on continuance importance of structural reforms and pursuing credible fiscal policies in order to raise living standards.

Supporting SMEs in both countries is essential to our countries' common objectives, as SMEs have the ability to transform lives at the bottom of the pyramid. The Access India Programme, through its objectives, will in a large part contribute to the two PMs' visions of the countries' relationship, and will drive further growth in our economies for years to come.

Vivek Sonny Abraham is Assistant Vice-President of Invest India, the country's main foreign investment promotion body.

RELIANCE JIO EXPLORES UK UNIVERSITY TIE-UP FOR NEW VIRTUAL REALITY APP

Reliance Industries' telecom giant is exploring a collaboration with Birmingham City University experts for a new virtual reality (VR) app it plans to launch next year.

Reliance Jio, a wholly-owned subsidiary of the Mukesh Ambani led Reliance Industries Limited, has already disrupted the Indian mobile network landscape with its cost-effective connectivity options. The Mumbai-headquartered mobile network operator is now eyeing the field of virtual reality and augmented reality in its next phase of growth.

The company's creative chiefs recently held discussions with academics at Birmingham City University to explore the training process of the next generation of VR professionals, with the hope of striking potential partnerships in the future. Aditya Bhat, Head of Jio Studios, and Ankit Sharma, its Creative Director, were part of a visit organised by the UK government's Department of International Trade (DIT) in early November.

As part of the discussions around its new VR app, JIO's inhouse studio is planning to collaborate with experts at the university by expanding their technical know-how, co-creating content and ensuring they are making the best use of the latest technology. JIO also hopes it can work with students who are creating VR and augmented reality (AR) content by showcasing their projects on its new platform.

Jio's inhouse studio is planning to collaborate with experts at the university by expanding their technical know-how, co-creating content and ensuring they are making the best use of the latest technology.

Professor Julian Beer, Deputy Vice-Chancellor of the university, said: "Birmingham City University and indeed the wider West Midlands is at the forefront of digital media technology and our active researchers ensure our students are best equipped for future careers in image and audio processing, digital media distribution and mixed reality systems. At the same time, we are enabling our industry partners, who benefit from the new knowledge we are generating in this rapidly growing field.

"We are delighted at this opportunity to share knowledge and experience with our friends from India and we hope that

from this visit we are able to build further institutional links with the country."

Most of the world's technology giants, including Google, Apple, Microsoft and Huawei, have identified VR and AR as the next frontier.

The Indian delegation to Birmingham was also joined by philmCGI, an animation studio based out of both Mumbai and Pune where around 90 artistes provide computer-generated images and visual effects services in films and television for some of the biggest studios in Europe and Asia. The company is also expanding its offer in VR and AR – fields covered at the university's Digital Media Technology (DMT) Lab.

The university demonstrated how it is managing the value chain from innovation to commercialisation, especially with its newly launched STEAMhouse project, a new centre aimed at encouraging the collaboration of the arts, science, technology, engineering and maths (STEAM) sectors.

Anand Bhanushali, Founder and Managing Director of philmCGI, said: "Birmingham City University has state-of-the-art media facilities; it is no wonder so many Indian students want to come to the UK to study.

Studies and Creative Industries, and one of the leading scholars of Indian cinema studies in the UK, the group is currently made up of a team of 13 academics and staff.

Prof. Dudrah said: "India is an important part of the world for us, not just in terms of the special links we have with the subcontinent because of our international students, but also because there is a wealth of opportunity for mutual understanding, co-creation of services, the undertaking of research, and to jointly address some of the current and future socio-economic challenges that will come our way.

"We were pleased to host this special visit under the auspices of the India Innovation Group, which has intellectual and personal relationships with the country and wider region, and we look forward to getting to know each other further."

The UK government announced last year that it will be contributing £14 million to help Birmingham City University create a collaborative innovation centre for solving the challenges facing micro, small and medium-sized enterprises (SMEs) in the UK's West Midlands region. By connecting the Arts into STEM subject areas (Science, Technology, Engineering and Maths), as well as linking academic research

"We discussed a number of opportunities for collaboration, such as STEAM-based problem solving. Lots of innovative solutions can be developed when applying fresh minds to companies such as ourselves".

The new UK-India collaborative dialogue was hosted by the university's recently-established India Innovation Group, which comprises academics and staff who have a direct connection to or an interest to India in terms of collaboration, industrial and educational links, or who have joint projects currently in development. The group meets on a quarterly basis to share ideas and analyse the update on the institution's progress with its strategic links within India.

Chaired by Professor Rajinder Dudrah, Professor of Cultural

and the vibrant creative arts scene surrounding the university, STEAMhouse hopes to develop a new supply chain across the region.

The institution claims a proud history of engagement with India and has catered to thousands of students from the country across the institution's four main faculties. Its alumni occupy senior positions in a wide range of organisations across India including AT&T, Barclays, BBC, IBM, Mitsubishi and Tata Elxsi.

Now, with a potential tie-up with Reliance Jio and philmCGI in the works, the partnership is set to take on a new virtual dimension.

PRINCE CHARLES BACKS NEW EDUCATION BOND FOR INDIA

Charles, Prince of Wales, threw his weight behind a new Education Development Impact Bond (DIB) for India during a recent tour of the country.

A new $10-million DIB has been created by the British Asian Trust (BAT), founded by Charles, Prince of Wales to fight poverty in South Asia, and is designed to improve learning outcomes for thousands of marginalised children in India.

The bond is intended as an innovative and sustainable social impact investment tool which will be tied in with performance and outcomes of educational initiatives, starting in India and then across the trust's other regions of operation.

"I hope that through the trust we can impact the lives of not just children in India but also change the mindsets of philanthropists around the world," said Prince Charles.

The Education Development Impact Bond has been developed by the trust alongside UBS Optimus Foundation with the aim of transforming the future of education in India. Under the initiative, the DIB will provide funding to four local not-for-profit delivery partners in the country over four years, delivering a range of operational models including principal and teacher training, direct school management, and supplementary programmes.

The bond is intended to improve literacy and numeracy learning levels for over 200,000 primary school students from marginalised communities in Delhi, Gujarat and Rajasthan.

While school enrolment numbers in India are high at 96 per cent, quality of learning remains poor. Less than 50 per cent of children in Grade 5 can read a Grade 2 level Hindi text, according to the 'Annual Status of Education Report 2016' by ASER Centre. By using the DIB model of funding, British Asian Trust claims it is pushing boundaries and finding innovative ways to achieve impact.

Manoj Badale, BAT Chairman, explains: "The British Asian Trust's $10 million Development Impact Bond is designed to… catalyse a system level change that could ultimately benefit millions of children."

Innovative financing is a relatively new concept for the philanthropy sector, which has long relied on traditional means of grant funding. BAT believes the very best of government, private markets and civil society can find new solutions to the most difficult social problems and create greater impact from every unit of money spent. The radical approach is the first of this size for the education sector in South Asia.

The UK government's Department for International Development (DfID) will contribute technical assistance and insights to the project as part of a wider partnership.

"DFID is exploring new and innovative ways to finance programmes which will transform the lives of some of the

world's poorest people. We are proud to support the British Asian Trust as they develop their Development Impact Bond, which will provide access to quality education for hundreds of thousands of children," said former DfID minister Priti Patel.

The Education Development Impact Bond has been described as a step towards a greater focus on social impact financing as a transformational tool for philanthropy. The concept of DIBs is intended as a result-oriented way to attract new capital into development, with a strong emphasis on data and evidence.

Richard Hawkes, Chief Executive of the British Asian Trust, said: "In India, the DIB will provide funding to four local not-for-profit delivery partners over four years, delivering a range of operational models including principal and teacher training, direct school management, and supplementary programmes.

"Moreover, the DIB Outcome Fund, being convened by the British Asian Trust, will only be paid when and if the target learning outcomes are achieved. Some formal commitments have been made towards the fund."

British Asian Trust's NGO Partner, The Education Alliance (TEA), introduced the concept of government-partnership schools to the South Delhi Municipal Corporation (SDMC), whereby the government and NGOs work closely together to trigger improvements in learning. This BAT-backed programme started with one school and nine children in 2015 and now has expanded to 30 schools and over 5,000 children. The trust feels that it exemplifies the fact that engagement with government schools provides a sustainable model for long-term provision of quality education to disadvantaged communities.

Sir Ronald Cohen, international philanthropist and a champion of global impact investing, described the British Asian Trust's DIB initiative as "ground-breaking" and capable of delivering vital social improvement at scale.

While in India in early November, Prince Charles met children from one of the SDMC partner schools, Lajpat Nagar-III School, besides a meeting with Narendra Modi to invite the Indian Prime Minister to the UK for the Commonwealth Heads of Government Meeting (CHOGM), to be held in London in April 2018.

DIGITAL INDIA CAN WIN THE ECONOMIC NATIONALISM RACE

by Nitin Dahad

India has an opportunity to take a leadership role in technology and innovation in a changing global landscape, writes a tech expert.

Economic nationalism has become the order of the day in many western economies. Given this backdrop, what are the opportunities for India, in terms of technology and innovation? In this article, I explore that while such sentiment may pose challenges, it also presents an opportunity for India, and despite Brexit, there is significant opportunity for research and innovation collaboration with the European Union (EU).

Pushback on outsourcing R&D

Major companies have been conducting some R&D outside their headquarters countries for decades. And India was a major beneficiary of this, especially in the software sector, with the resulting dominance of companies like Infosys and Wipro. In 2015, it was determined that 94 per cent of major global corporations conduct their R&D in multiple countries.

But increasing attention on regulations and policies for visas, labour movement, and the regulations governing the sharing of knowledge and technology are causing some companies to question how sustainable their integrated global innovation networks are.

A recent report on global innovation found that nearly 33 per cent of R&D executives said they have already felt the effects of economic nationalism on their R&D talent acquisition or retention because of visa or work restrictions — either losing employees, seeing less talent available, or in hiring more local talent. The PwC Strategy& Global Innovation 1000 study analyses spending at the world's 1,000 largest publicly-listed corporate R&D spenders and is now in its 13th year.

Its key findings were:

- Amazon is the largest spender on R&D in the Global Innovation 1000 study, the first time the top spender is a high-tech firm. All top four spenders are high tech companies.
- Overall, software and internet industry companies continue to increase their year-on-year R&D spending, and that by 2018, healthcare companies will surpass computing and electronics to become the largest industry in terms of R&D spending.
- Overall, computing and electronics, healthcare and automotive are the top three industry sectors and represented 61.3 per cent of global R&D spending in 2017.
- Alphabet, Amazon, GE, IBM and Microsoft all increased their ranking in the 10 most innovative companies list.

There's no doubt that uncertainty is causing concern for medium and long-term plans, irrespective of whether policy realities actually follow political rhetoric. Barry Jaruzelski, principal, PwC US, Strategy&, says: "Although the goals

and levels of investment in corporate innovation will likely not change if economic nationalism continues to develop, the global innovation model would need to evolve. At many companies, what is now a nimble, interdependent network may become a group of more autonomous hubs, hiring specialist technical talent in local regional markets and opening future R&D centres in regional markets."

India has thrived on the outsourced innovation, R&D and software development model. So the pushback that this survey suggests presents a huge threat. It is an even bigger challenge in the context of my last article, where I talked about technology replacing jobs and the need for Indians to re-skill with a digital mindset.

An opportunity for India to lead

At a macro level, if the skills issue is addressed, this presents a real opportunity for India to take a global leadership position, especially in technology. Veteran of the Indian tech industry, Sunil Bharti Mittal, chairman of Bharti Enterprises, said recently: "As many of the powerful countries of the western world talk about raising trade barriers, India needs to speak out more forcefully in favour of open economies and societies."

The key message he says is:

- India's new narrative is about internationalisation, innovation and inclusiveness
- Technology must drive inclusive growth; entrepreneurship, empowerment of India's youth, smart villages and shifting people into the formal economy are key.

Opportunities for India are in areas like agriculture and smart villages.

Agriculture still employs upwards of 80 per cent of India's labour – most of it in the informal sector. Bringing these jobs into the formal sector is critical, through skills training, digitalisation, entrepreneurship and boosting the participation of women in the economy. Smart villages are another solution – self-sustainable through renewable energy, digitally connected and e-governed. Speaking at the recent World Economic Forum India Summit, which took place in Delhi in October 2017, Dipali Goenka, chief executive officer and joint managing director of Welspun India, said: "Growth needs to be brought to villagers, not villagers to the cities – that's very important. If women can be employed and empowered, then their children will study better and contribute more."

Meanwhile, India is a world leader in renewable energy. In the past 27 months, India has sold 700 million LED bulbs without government subsidy, driving down power consumption by 11 per cent and CO2 emissions by 80 million tonnes. This in turn will save the country $20 billion of investment in coal power plants in future – opening the way for renewable alternatives.

India has thrived on the outsourced innovation, R&D and software development model.

Opportunity for technology and research collaboration

At the recent EU-India annual summit, attended by Narendra Modi, the Indian prime minister, Donald Tusk, President of the European Council, and Jean Claude Juncker, President of the European Commission, the leaders reviewed the wide-ranging cooperation under the India-EU Strategic Partnership. The EU leaders welcomed India's efforts to promote economic and social development and expressed the EU's continued interest in participating in India's flagship initiatives such as 'Make in India', 'Digital India', 'Skill India', 'Smart City', 'Clean India', and 'Start-up India'.

They also highlighted intensified technical cooperation between the Indian and European telecom standardisation bodies (TSDSI and ETSI), supported by the EU, and focusing on future global standards for 5G, intelligent transport systems, internet of things (IoT), future networks and telecom security. Both sides encouraged the stakeholders to broaden this cooperation, demonstrate concrete technological solutions, and strengthen links between 'Digital India' and 'Digital Single Market for Europe'.

They also had positive exchanges on internet governance, on increasing the ease of doing business for ICT (information, communications and technology) companies on both sides, as well as meetings between the Indian and European start-up ecosystems under a 'Start-up Europe India Network'.

In addition, they agreed to scale up cooperation under the renewed India-EU Science and Technology Cooperation Agreement in frontier areas of science and technology and in addressing current global challenges in particular in the areas of health, water and clean energy. One of the highlights is a major joint flagship initiative of €30 million on water-related challenges, reflecting the pressing need to cooperate on technological and scientific knowledge and management capacities to cope with increasing stress on water resources.

Both sides agreed to work towards reciprocal opening of the EU Framework Programme for Research and Innovation 'Horizon 2020' and Indian programmes, and called for an intensified two-way mobility of researchers.

In summary, yes, there is a new challenge for India to continue the tried and tested model where global corporates considered Indian technology R&D centres a key part of their product development. But there is also opportunity, especially with the renewed vigour of the EU-India relationship, to collaborate on research and innovation, enabling mobility of talent, and joint work on future standards such as for 5G, intelligent transport systems, as well as telecom security.

There is also an opportunity for India to lead, by moving away from the old outsourcing business model, and use the collaborative approach to both boost innovation, as well as take a leadership role in shaping the future of the technology world.

Nitin Dahad, UK-based Tech Adviser

INDIA-UK FUTURE TECH MONTH PROMOTES INNOVATION TIES

The month of November has been earmarked for a focus on cooperation between India and Britain in the field of digital innovation.

The UK government's Department for International Trade (DIT) has been running a month-long series of technology-focused business activities in the UK and India under the banner of India-UK Future Tech Month.

The series of events are aimed at showcasing the very best UK technology and innovation to a high-quality Indian audience, including buyers, investors, and central and state-level government officials, DIT said.

Sir Dominic Asquith, British High Commissioner to India, said: "November marks one year since British Prime Minister Theresa May led her first overseas trade mission to India, and two years since Prime Minister Narendra Modi's landmark UK visit. On both occasions, India and the UK demonstrated their 'unbeatable combination', agreeing a range of closer partnerships covering prosperity, science, innovation and technology. These are of course built in PM Modi's words on a 'living bridge' of talent, people, ideas and capital.

"There is a digital revolution in India at the moment and the country is inching towards an even more cost-effective digital economy."

"The time is right to redouble our commitment to matching India's technology demands with the UK's very best offer, encouraging UK companies to look to India and to encourage Indian companies to grow their businesses in the UK. We are working with a range of partners in the Government of India to lead this new form of partnership this November.

"We are already partners in core PM Modi priorities around 'Make in India', 'Digital India', 'Invest India', and we acknowledge the demand for British technology and innovation to meet India's ambitions as the world's fastest growing G7 economy. I am confident this India-UK Future TECH month will inspire British businesses to 'Think India' and will expose India's most ambitious businesses to the breadth and depth of the UK's tech expertise."

As part of the initiative, DIT organised for 60 Indian companies across 10 sectors to take a tour of UK-wide business hubs in Manchester, Liverpool, Birmingham, Leicester, Coventry and London to inspire new partnerships,

Together India and the UK have the potential to transform many areas including financial technology, cyber security, skill development and R&D.

strengthen tech collaboration and land business deals, spanning sectors as diverse as data analytics, Internet of Things, ICT services, advanced manufacturing, electric vehicles, automotive, healthcare, life sciences, food and drink and creative industries.

The centrepiece of the month-long series was an India Zone at the Innovate 2017 summit in Birmingham, which brought together partners from the Indian government, including Invest India, the Indian High Commission in the UK, and the Indian Ministry of Electronics and Information Technology, along with the state governments of Karnataka and Kerala. The focal theme of the programme was 'India's Innovation and Technology Needs – The UK's offer' and the visits were also supplemented by business-focused 'meet the buyer' events in the Midlands and Manchester.

Amitabh Kant, CEO Niti Ayog, said: "India's technology sector is set to triple in the next 10 years. Our Prime Minister has listed 'Digital India' among his top priorities. We share longstanding deep commercial partnerships with the UK, which we are keen to build on even further. Together India and the UK have the potential to transform many areas including financial technology, cyber security, skill development and R&D.

"There is a digital revolution in India at the moment and the country is inching towards an even more cost-effective digital economy. We have one of the largest digital skilled work forces globally, and are keen to partner with the UK on domestic digital skill development and technology exchange. I see the UK's potential as limitless; India is already the fourth-largest investor in the UK with a staggering 31 per cent of investments in the technology and telecom sector.

"The initiative of bringing Indian and UK businesses face to face in the UK will I am sure develop strong future technology partnerships and business deals."

Innovate 2017 was supported by thought-leadership sessions on India's 'trillion-dollar' digital opportunity and a focus on data analytics, internet of things and big data.

Innovate UK Chief Executive Dr Ruth McKernan said: "Innovate 2017 is an excellent platform to showcase the existing strong UK-India innovation links and foster further important business collaborations for the benefit of both our economies… hope it will generate some significant business deals and partnerships."

In India as part of the tech month series, DIT brought together innovative UK healthcare companies to the Research Society for the Study of Diabetes in India's 45th Annual Conference in Bhubaneswar and held meetings with companies in Chennai. DIT also brought an oncology trade mission to the Indian Cancer Congress in Bengaluru and the same mission also participated in the India UK Healthcare Forum in Mumbai.

SHORT TAKES

Vedanta to invest $9bn in India

London-based Vedanta Resources Plc will invest roughly $9 billion in India over the next few years to expand its hydrocarbons, metals and mining businesses and meet more of India's requirements of these commodities locally.

Anil Agarwal, founder and chairman, Vedanta Resources Plc, said: "We are planning to invest $2.5 billion in oil and gas to step up our production to half of India's crude oil output (from 26 per cent in 2016-17).

"The other proposed investments in India include $1.5-2 billion in the aluminium sector, $2 billion in bauxite mining, $1.5 billion in zinc and $1.5 billion in iron ore mining and steel. Additionally, a part of Vedanta's proposed $1.5 billion investments in copper will flow into India."Directly and indirectly, these investments will create over a million jobs," he added.The company is also looking at investing Rs 4,000 crore ($615 million) in Jharkhand to set up a 1 million tonne per annum plant producing pellets, pig iron and pipes. This plant is expected to create around 5,000 jobs.

Michelin to double Indian plant capacity

French automotive tyre major Michelin will double its production capacity to 30,000 tyres per annum at its Indian facility by 2018.

Apart from this, a new production line for truck tyres was inaugurated this week.The new production will serve the increasing demand for both, the replacement market and the original equipment manufacturers in the country

Michelin has signed an agreement with commercial vehicle maker Ashok Leyland Ltd to supply the X-Guard range of radial truck tyres for its Captain 3718 Plus long and medium distance commercial vehicles.A total of Rs 3,500 crore (over $538mn) has been invested by Michelin at its factory and research and development centre in India

The Indian subsidiary sources two wheelers tyres from a TVS group company while importing tyres for passenger cars and other vehicles. Officials said the Indian subsidiary would increase the range of tyres produced for commercial vehicles but would continue to source tyres for two wheelers from a tyre maker.

Otis to make elevators in India

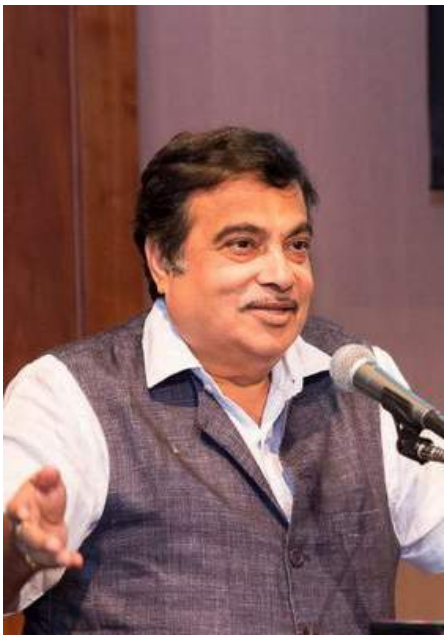
US-headquartered Otis will start manufacturing escalators in India from next year, a top company official said.

Sebi Joseph, Otis India President, told Indian media: "We will start manufacturing escalators next year. It will be manufactured in our Bengaluru facility. By 2020 we see modernisation of railway stations, tier II and III cities are growing in population and this can bring in more next decade infrastructure growth, retail segment growth."

He added that this would fuel the growth of escalators and that is what made this a strategic project for them.

"Otis has great confidence and belief in India. Over a period we will indigenise most of the products. Right now we have 40 per cent global components and about 60 per cent Indian components. In 2012, it was other way round. Our goal is to get into total indigenisation. We are expanding the range of products manufactured," Joseph said.

The company is eyeing a growth of 19 per cent this year on the back of new product launches.



$1bn pledged at India-UAE summit

The two-day India-UAE Partnership Summit (IUPS) concluded with a $1-billion fundraising by the NRI-Emirati Investor's Group, established by the Business Leaders Forum (BLF), organisers of the event. The NRI-Emirati Investors Group includes more than 20 top non-resident Indian (NRI) businessmen in the UAE.

Nitin Gadkari, India's Union Minister for Roads, Highways, Transport, Maritime and Water Resources, invited UAE investors to take up projects from a selection of hundreds of new development projects under the Sagarmala and Bharatmala initiatives.

The International Monetary Fund (IMF) says the current initiatives will help India raise its GDP growth rate to 8.1 per cent by 2020, from the current 7.2 per cent.Gadkari also invited UAE investors to participate in the Ganga rejuvenation programme worth $680 million, as well as in the ports and inland waterways development.Dr Abdullah Al Nuaimi, UAE Minister for Infrastructure, said: "We are going to invest $60 billion in the maritime sector to raise its contribution from 5 per cent now to 25 per cent to the UAE's GDP in the next 10 years. We need India's expertise in our journey and that's where our strategic partnership will be more meaningful."

Maharashtra, South Korea sign MoU

The Maharashtra government and South Korea signed a memorandum of understanding (MoU) for cooperation in the construction of major infrastructure projects in the state, including the upcoming 706 km Mumbai-Nagpur Expressway.

The MoU was inked in the presence of Chief Minister Devendra Fadnavis and South Korean Minister for Land, Infrastructure and Transport Kim Hyun-mee in Seoul this month.

Fadnavis detailed various projects which make Maharashtra an attractive hub for industrial development in India, having attracted 50 per cent of all foreign direct investment in the country.

According to the MoU, South Korea is expected to support or participate with the state on other major projects like Smart Cities, roads and highways, airports and metro-rail coming up in different parts of Maharashtra.The developments came on the first day of the three-day visit by a high-power delegation led by Fadnavis to South Korea

India, Kazakhstan eye closer ties

India and Kazakhstan discussed expanding cooperation in hydrocarbons and nuclear energy sectors, as well as expanding the International North-South Transport Corridor by linking it to the Kazakhstan-Turkmenistan-Iran rail link.

These and other issues were discussed at the two-day meeting of the Inter-Governmental Commission (IGC) with Kazakhstan, led by Indian Petroleum and Natural Gas Minister Dharmendra Pradhan and co-chaired by Kazakh Energy Minister Kanat Bozumbayev, in the central Asian nation's capital Astana, an Indian Petroleum Ministry release said.

An official statement said the two sides discussed ideas for stepping up cooperation in the energy sector, trade, economic, investment, transport and connectivity, agriculture, information technology, space, healthcare and cultural spheres between the two countries.

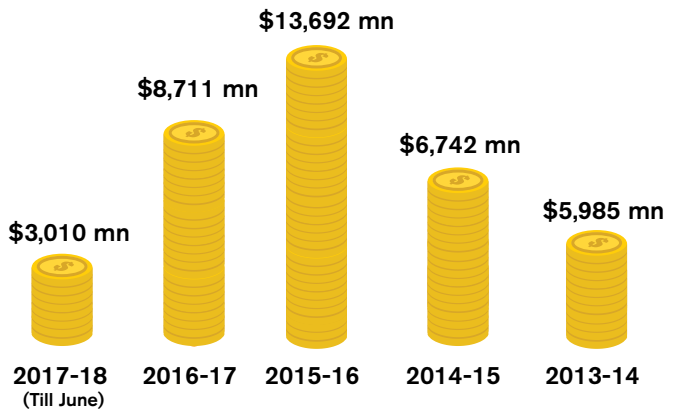
Kazakhstan is strategically located between Europe and Asia and offers enormous business opportunities for investments. The country is rich in mineral resources, such as uranium, oil and natural gas.

This transport corridor is a 7,200 km multi-mode network of ship, rail and road for transporting cargo between India, Russia, Iran, Europe and Central Asia. The route mainly involves moving freight from India, Iran, Azerbaijan and Russia via this network

Fact File: Singapore

Singapore is India's tenth-largest bilateral trade partner and the second-largest among countries of the Association of Southeast Asian Nations (ASEAN). Here is a broad overview of Singapore's influence in India.

FDI from Singapore



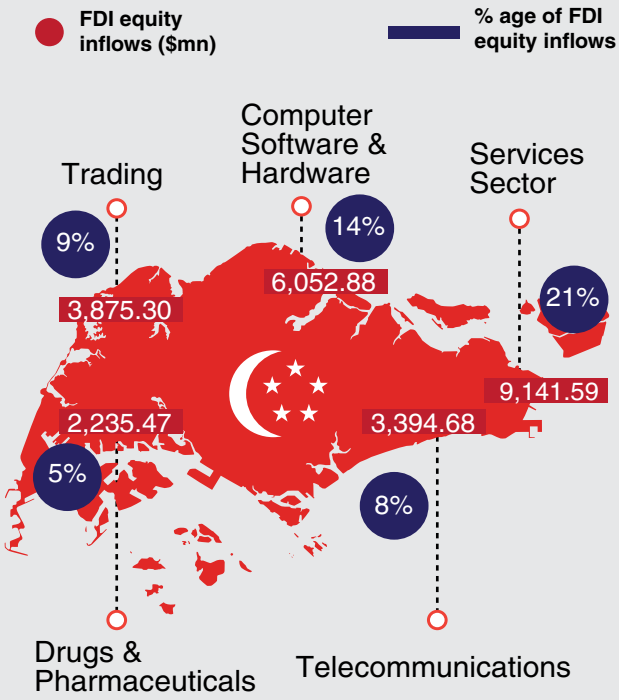
Source: Department of Industrial Policy & Promotion

Overview

- Singapore is India's 10th largest bilateral trade partner (2016-17) and the **2nd largest** among ASEAN countries.
- Bilateral trade expanded after the conclusion of CECA from **$6.7 billion** in 2004-05 to $16.7 billion in 2016-17.
- Total foreign direct investments from Singapore into India was **$57.6 billion** (till June 2017), which was 16.8 per cent of total FDI inflow.
- The outward Indian FDI to Singapore was **$49.45 billion** (till June 2017), making Singapore one of the top destinations for Indian investments.
- More than **440 companies** from Singapore are registered in India.
- 2 banks, International Enterprise Singapore (IE) and Singapore Tourism Board have their offices in India.
- In August 2017, **DBS Bank** India received Reserve Bank of India approval to become a locally incorporated wholly-owned subsidiary.

Source: Various

Top Sectors Attracting Highest FDI from Singapore (2000-2015)



Top States Attracting Highest FDI from Singapore (2000-2015)

State/Union territory	FDI equity inflows ($mn)	% age of FDI equity inflows
Delhi, Parts of UP & Haryana	15,234.68	35%
Maharashtra, Dadra & Nagar Haveli, Daman & Diu	9,046.96	21%
Karnataka	4,142.91	10%
Tamil Nadu, Pondicherry	3,316.94	8%
Gujarat	1,281.34	3%

Source: Department of Industrial Policy & Promotion

Singapore's Collaboration with States

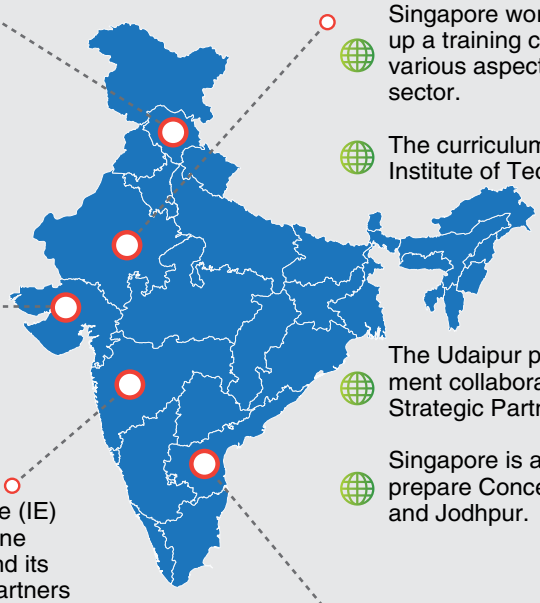
In Sept. 2016, the Singapore government signed a preliminary MoU with the Himachal government to develop a smart integrated township at Jathiadevi, near Shimla

In January 2017, IE Singapore signed MOUs with Gujarat Industrial Development Corporation (GIDC) and Gujarat Maritime Board (GMB) to facilitate business collaboration for Singapore companies in manufacturing, logistics services and port technologies.

In March 2017, International Enterprise (IE) Singapore signed an MoU with the Pune Municipal Corporation to further expand its networks with key local government partners across India.

Under the MoU, IE Singapore will work closely with the Pune Municipal Corporation to enable more Singapore companies to participate in Pune's smart city projects.

Specific areas of collaboration include upgrading Pune's transport infrastructure and traffic monitoring systems, treatment and management of water and waste water, e-governance and citizen engagement service.



In October 2016, IE Singapore inked an MoU with the government of Rajasthan to facilitate collaboration between Singapore and Rajasthan companies in smart urban solutions and tourism development.

Singapore worked closely with Rajasthan to set up a training centre in Udaipur to train students in various aspects of the tourism and hospitality sector.

The curriculum is prepared by Singapore's Institute of Technical Education Services.

The Udaipur project is part of the skills development collaboration under the India-Singapore Strategic Partnership signed in November 2015.

Singapore is also working with Rajasthan to prepare Concept Plans for townships in Udaipur and Jodhpur.

In March 2017, a consortium of Singapore companies inked a pact with the Andhra Pradesh government to develop an area of 6.84 km in the new capital of Amaravati as a start-up area in phases.

The $343.9bn project will be completed in three phases over a span of 15 years.

Major investments

Temasek

The Singapore government-owned investment company Temasek has touched the $10- billion investment mark in India.

In India, it started investing in 2004 to tap the opportunities that came with rising consumption.

In the past five years, on an average, it has invested $1 billion annually.

In India, Temasek has invested in life insurance company SBI Life and Crompton Greaves Consumer Electricals, and increased its stake in HDFC Bank.

GIC

In August 2017, GIC acquired a 33.34% stake in DLF Cyber City Developers (DCCDL) for Rs 89 billion (around $1.4bn). The deal is said to be one of the largest-ever private equity transactions in the country's real estate sector.

GIC has been active in Indian real estate since December 2014, when the fund tied up with property developer Vatika Group to build two residential projects in Gurgaon.

In the same month, GIC agreed to buy a controlling stake in Mumbai-based property firm Nirlon for around $200 million.

GIC is also the principal investor in the Ascendas India Growth Programme (AIGP), a $440mn vehicle set up with Singapore's Ascendas-Singbridge in 2013.

In 2015, GIC had picked up a 50 per cent stake in American property developer Tishman Speyer's WaveRock office project in Hyderabad.

LIMITED LIABILITY PARTNERSHIP: An alternative choice of entity to invest into India

by Ajay K. Sanganeria, Vikram Mehta & Gaurav Tanna

In recent years, Foreign Direct Investment (FDI) into India has been on the rise, with a significant percentage of such FDI originating from Singapore.

Establishing a private limited company has traditionally been a popular means by which foreign investors set up an entity for (ease of) doing business in India. While a private limited company has its advantages, such as managing shareholders liability, perpetual succession, ease of transfer of ownership, it also incurs additional tax and compliance burdens in India.

One of the key issues with setting up a private limited company is the Dividend Distribution Tax (DDT), currently at approximately 20.36 per cent, which is applicable at the time of profit distribution to shareholders. This is a tax on distribution of profit which is levied over and above the corporate tax rate of approximately 34.61 per cent. While such dividends are exempt from tax in India for both local and foreign shareholders, foreign shareholders need to consider a tax credit claim for the DDT in their respective home countries.

In Singapore, credit can be claimed for such DDT. However, since the dividend income from India is usually exempt from tax in Singapore, and the credit for DDT may not be useful, unless an investor has other qualifying foreign sourced income for which such credit can be used under foreign tax credit (FTC) pooling rules.

Owing to additional tax burden of DDT at the time of distribution of profits, the complexities surrounding claiming of underlying tax credit and other compliance burdens, Limited Liability Partnerships (LLPs) are becoming a popular mode for foreign investors operating in India.

Limited Liability Partnerships (LLPs) are becoming a popular mode for foreign investors operating in India.

An internationally accepted vehicle of business in the form of LLPs emerged in India post enactment of the Limited Liability Partnership Act, 2008 (LLP Act). One of the main advantages of an LLP is that it enshrines some benefits of a corporate structure (especially limited liability of shareholders) within the more flexible partnership firm format.

FDI in an Indian LLP was first permitted under the Indian Foreign Direct Investment Regulations in 2011, requiring government approval but with several restrictions. Foreign investors were concerned with these restrictions and as a result it received a very tepid response. The government of India and Reserve Bank of India (RBI) were responsive to these concerns, introducing several relaxations with an intention to provide a friendlier environment to foreign investors and provide impetus to foreign investments in India.

Key framework for foreign investments in an Indian LLP

100 per cent foreign investment permitted without prior approval

100 per cent foreign investments are now permitted in an Indian LLP under the automatic route i.e. without prior Government approval, in sectors where there are no FDI linked

performance conditions, if other conditions are met. Examples of sectors where there are FDI linked performance conditions include companies in the Real Estate sector, Non-Banking Financial Companies and so on.

Foreign Portfolio Investors, Foreign Institutional Investors and Foreign Venture Capital Investors are specifically restricted from investing in an Indian LLP.

Requirement of having an Indian resident Designated Partner (DP) deleted

Foreign Investment regulations previously required a DP by way of a Company registered in India under the provisions of the Companies Act, but did not permit such DP to be any other body, such as a Trust or a LLP. Further, it was necessary that if an individual was appointed a DP he also needed to be a 'person resident in India'.

These conditions have now been relaxed and a Foreign Company can also be a DP. Further, if an individual is appointed as DP, he or she need not satisfy the residency test under the Indian Foreign Exchange Regulations. Such DPs would however continue to comply with conditions prescribed for them under the LLP Act.

Conversion of a Company with FDI into LLP under automatic route

Conversion of a Company with foreign investment into LLP, which was previously under the Government approval route, is now permitted under the automatic route for Companies being engaged in a sector where foreign investment up to 100 per cent is permitted under an automatic route and there are no FDI linked performance conditions.

From a Foreign Investment regulations standpoint, while this seems to be a welcome move, it may still not lure many foreign investors as conditions for availing tax neutral conversion is likely to cover only small and medium enterprises. Key conditions for tax neutral conversion include sales / turnover / gross receipts should not exceed Rs 6 million over the previous three years, no amount being paid to any partner out of accumulated profits, book value of assets not exceeding Rs 50 million over the previous three years, continuity majority of ownership post conversion etc.

Other key considerations

LLPs were previously not permitted to obtain foreign loans nor make downstream investments. Downstream investments and foreign loans are now permitted for Indian LLPs with FDI. However, for foreign loans, one would have to wait until the enabling regulations for the same are amended.

From an India tax perspective, DDT is currently not applicable in the case of Indian LLPs and thus, they stand on a beneficial footing vis-à-vis a Company which is liable to dual layer of tax i.e. corporate tax at company level and DDT on declaration of dividends. Share of profits earned by partners of an LLP, are exempt from tax in India. This is a big plus-point for foreign investors who are considering repatriation of surplus profits from their Indian subsidiaries in a tax efficient manner.

Further, in light of the recent tax treaty amendments by India with Singapore, Mauritius and Cyprus, company structures have become less beneficial from a tax perspective. Investment in shares of an Indian company made on or after 1 April 2017, which are subsequently transferred by a Singapore / Mauritius / Cyprus tax resident investor, would be subject to a capital gains tax in India. Such capital gains tax do not currently apply to the transfer of partnership interests and therefore, it is opportune to explore LLP structure.

Food for thought

While LLP has the merits of a company and a partnership, an LLP structure may not always be an obvious choice for setting up an Indian entity, and each choice is determined by the merits of each case. Some considerations include what sector an Indian entity is operating in, what type of Singapore investor (i.e. strategic or private equity) is involved, the possibility of availing FTC pooling and so on.

Hence, foreign investors (including Singapore investors) should be mindful of the pros and cons of a company and an LLP structure in India, and following thereon in making the best informed decision.

Ajay Kumar Sanganeria is Tax Partner at KPMG Singapore; Vikram Mehta is Tax Senior Manager, KPMG Singapore; and Gaurav Tanna is Associate Director, India Desk, KPMG Singapore.

NEW FINDINGS INSPIRE CONFIDENCE IN INDIA'S REPORTING OF METHANE EMISSIONS

by Anita Ganesan

Methane is the second most powerful greenhouse gas whose concentrations are rising in the atmosphere but India recorded little growth in its emissions over the last few years.

Dr Anita Ganesan is the NERC Research Fellow and Proleptic Lecturer at University of Bristol.

Methane is the second most powerful greenhouse gas after carbon dioxide and concentrations are rising in the atmosphere. Each tonne of methane emitted contributes roughly 25 times more to global warming than an equivalent amount of carbon dioxide. Because of its potency and quick decay in the atmosphere, countries have recognised that reduction of methane emissions can be an efficient means toward mitigating global warming.

In India, methane is mostly emitted from agricultural sources (from cattle and other ruminating animals and from rice paddies) and its emissions are more uncertain than fossil fuel carbon dioxide because they are part of biological systems which are influenced by the environment. Methane emissions can vary dramatically from one place to another and over time, which makes them more difficult to account for in an inventory. India currently has the world's largest cattle population and is a leading producer of rice – because of this, methane accounts for approximately 20 per cent of India's total greenhouse gas emissions.

India, like other Parties to the United Framework Convention on Climate Change, produces a report that accounts for their emissions of carbon dioxide, methane, nitrous oxide, and several synthetic greenhouse gases using underlying "activity data" (for example, counting the amount of a particular source, say vehicles, and scaling by a typical emission factor, the emission-per-vehicle). However, this inventory process, known as 'bottom-up' accounting, can have large uncertainties, particularly for gases like methane, and this is true in many parts of the world.

The size of the uncertainty for many greenhouse gases (sometimes 100 per cent or larger) means the uncertainty can be as large as the emissions that are being reported. In light of new climate agreements such as the Paris Agreement, the implication of large uncertainties in national inventories is that it is difficult to both evaluate a baseline for reduction targets and to subsequently assess whether those measures have worked. The only way to better constrain national emissions is to use a variety of approaches, each providing its own independent estimate of emissions.

It has been shown in other places in the world that an alternate methodology, known as 'top-down' emissions quantification, can be used to independently evaluate national emissions (although there are also uncertainties in the top-down approach) using measurements of methane concentrations in the atmosphere. Atmospheric measurements are key to evaluating and improving inventories – discrepancies between the two can highlight areas where work needs to be done to quantify emissions.

India, like other Parties to the United Framework Convention on Climate Change, produces a report that accounts for their emissions of carbon dioxide, methane, nitrous oxide, and several synthetic greenhouse gases.

The University of Bristol has studied emissions monitoring around the world. In our top-down study, we used measurements of methane concentrations from monitoring sites in India and from a satellite (monitoring methane concentrations around the world), to infer India's methane emissions from 2010-2015. We have concluded that there has been little change in India's methane emissions during this period and that the bottom-up reporting of these emissions by the country's authorities is accurate.

This is in contrast to other countries, such as China, where atmospheric measurements have shown increasing emissions of the greenhouse gas in recent years or the United States, where large discrepancies have been found between reported emissions and those inferred from atmospheric observations. This finding should place some confidence in India's current methane inventory.

We also found through observations of the atmosphere that methane emissions from India

are enhanced each year between June and September – this is due to the rice production season. These enhanced concentrations over India can clearly be observed in the atmosphere.

Atmospheric monitoring must become a standard component of emissions reporting for all countries. This independent assessment, in parallel with standard reporting, is essential for the success of international climate policies. By using a variety of approaches, we can reduce the uncertainties in our knowledge of greenhouse gas emissions.

We now have the benefit of being able to measure some greenhouse gases from space, data which were used in our study, for example. Satellites allow us fill in gaps in places where it is difficult to have in-country monitoring. Satellites will play an important role in the future toward monitoring greenhouse gases and evaluating country and even city-scale emissions, however, they cannot be used completely independently of rigorous ground-based measurements. If all countries were to measure greenhouse gas measurements in their atmosphere and make them publicly available, then this would also help to add transparency to the process.

Our findings are possible in part due to the atmospheric measurements made by India. It's encouraging to see that India's reporting of its methane emissions is fairly accurate and that the emissions are stable. To make climate agreements succeed, we need as much information as possible.

THE CHANGING FACE OF INDIAN REAL ESTATE

by Deepak Varghese

India Inc. property expert analyses the pattern shifts in the Indian real estate sector due to changing laws and market trends.

If one were to think that the pain in the Indian real estate industry is a matter that started in 2016 due to demonetisation and was made worse in 2017 due to the implementation of the Goods and Services Tax (GST) and Real Estate Regulation Act, one would like to consider the fundamental changes in the IT, telecom and local digital businesses, the impact of which had a domino effect on the real estate business.

What started off as seemingly innocuous right-sizing of work force from IBM to TCS in the winter of 2013 continued as a year-on-year exercise. It is now an acceptable norm that such things will happen, given that even Cognizant Tech that seems to have entered the social media, mobile and deep data fields ahead of traditional technology businesses have not remained untouched by the systemic change.

The telecom sector has been undergoing change from voice to data dominance, financial drag by high capital expenditure and the emergence of disrupting new entrants like Reliance Jio. If that was not enough of a change, core sectors like power, steel and infrastructure started turning sick with more than five of the top 10 borrowers nationally being from one of these sectors. Now if bank loans were going bad on the wholesale side and small and medium enterprises (SMEs) linked to large corporates were affected by slowdown of their principals, the counter-balance was the rapid growth of fintech, given that there were well experienced resources willing to join start-ups as their traditional jobs were vanishing.

Given that each passing year had one sector or two going through a change, it meant that the real estate sector had consumption pattern shifts. If one could try to pick a trend, one could possibly see the rise in absorption of commercial real estate from 2014 as the sectors of social media, mobile, gaming, data analytics and the likes were on an expansionist mode. They were the happening fields globally and India had the talent that attracted international firms to grow their Indian arms and business associates. Since change was constant for the employees of these various sectors and businesses associated with these sectors, residential real estate purchase was resorted to only if it was an absolute necessity. That gave rise to increased production of homes that cost less than the equivalent of $100,000 and all the way down to small units costing $25,000 equivalent. Prior to this period, given the rapid rise in real estate prices, a majority of the homes built exceeded the equivalent of $125,000. Business rapidly digitising and the need for a strong doorstep delivery mechanism led to the emergence of logistics businesses that started transforming warehousing spaces. Also, there was more disposable income in the hands of the youth due to deferred purchase of homes and assets and there emerged the retail/mall category of various sizes and themes.

Entry barriers were reasonably low in the real estate sector, considering that local laws and rules deterred large domestic players from entering newer markets. If they did, they chose reasonably larger projects as the mid-size and smaller projects were dominated by a multitude of local players.

The prolonged shift in real estate consumption patterns over 2014 and 2015 had strained the financial resources of the small and mid-sized local players and the triple impact of demonetisation, GST and RERA finished whatever stamina was left.

The past three-four years saw the emergence of alliances between international financial institutions specialising in real estate sector assets with larger domestic players – FIIs like Blackstone, Canadian Pension Plan Investment Board (CPPIB), Abu Dhabi Investment Agency (ADIA), Brookfields Asset Management, GIC & others, with Blackstone emerging as the largest owner of Indian commercial real estate.

With the change in the buying behaviour of the younger generation, malls and retail too underwent changes with Ascendas, Xander and others beginning to aggregate these assets from local players.

Come GST, the smaller warehouse clusters typically near state borders have become redundant, giving rise to an opportunity to build well-developed large format clusters, something that was earlier focussed on only by Blackstone, Indospace and Brookefields in association with some large domestic developers.

Assetz Developers announced a $800-million mega-private equity deal with LOGOS, focusing on the warehousing sector nationally while Total Environment, also of Bengaluru, announces a Rs 800 crore ($125 million) structured debt deal

with Brookfields across their residential projects in multiple cities.

The National Capital Region (NCR) developers continue to struggle with their inflated borrowings and stagnant sales due to increased consumer activism. Unitech developer MD remains under judicial custody, with the court seeking the deposit of a minimum of an amount equivalent to $125 million before his bail plea is accepted. Historically, NCR has been the market of some of the largest developers which means their ballooned debt is now a challenge on the books of banks. The judiciary is also adopting a hard stance against the developer community.

Mumbai, on the other hand, may have excessive supply in the Parel belt, but developers with projects in New Mumbai, Borivili and beyond and Chembur-Thane belt are seeing the sales meter ticking reasonably.

Hyderabad seems to have started with a near clean slate with one of the better infrastructure projects and has been attracting reasonable interest across all real estate sectors – even more given that land prices are not overly high and availability is plenty.

While residential sales were showing hopes of picking up in July and August – September and October have been extremely disappointing in sales. Given that the market by and large hibernates post December 15, the year 2017 has been the most disappointing year so far in this decade in terms of sales.

Given that the market by and large hibernates post December 15, the year 2017 has been the most disappointing year so far in this decade in terms of sales.

While past participation was predominantly by institutional funds partnering with large domestic or by large contracting companies – again focussing on large players, the stage now seems to be set for international property developers to enter the market as there seems to be a near level playing field. We could also see the emergence of some special situation funds entering this space, given that dollar yields look quite interesting and despite all the changes, the rupee has been quite stable since the current government took charge. That said, land laws and development plan sanctions are still seen as challenges compared to developed countries.

As an aside, an interesting public-private sector cooperation model can be seen in an emerging Gurugaram (NCR) developer – Signature Global, which has been founded by professionals from the financial services sector and backed by some domestic financial institutions. They claim to have sold over 5,000 units of affordable homes (ranging from $25,000 to $75,000) in the past two years in association with the Haryana government, with the first development coming up for delivery in March 2018 followed by four more projects being delivered in 2018.

Deepak Sam Varghese is founder-director of Moonbeam Advisory.

MAYOR OF LONDON PLANS INDIA VISIT TO PITCH LONDON IS OPEN MESSAGE

Britain's decision to leave the European Union (EU) did not echo in London, which voted decisively against Brexit in June 2016. However, faced with the prospect of the British capital losing some of its shine as a gateway to Europe for Indian companies, the Mayor of London has taken matters in his hand.

Sadiq Khan announced a six-day, six-city tour of India and Pakistan to promote London as a destination of choice for trade and cultural ties.

Khan, whose grandparents were born in India and parents migrated from Pakistan to the UK, said he was "very excited" to become the first senior British politician in recent times to visit both countries at the same time during the planned before the end of this year.

"As someone whose grandparents were born in India, and whose parents moved to London from Pakistan, I feel a deep affinity for the subcontinent," said Khan.

"What excites me most about this trip is that I know it can deliver real benefits for Londoners. Benefits in terms of business and trade, jobs and investment, and in terms of cultural and technological exchange," he said.

"What excites me most about this trip is that I know it can deliver real benefits for Londoners."

While the complete itinerary of the visit is still being finalised, the mayor and his team will cover Delhi, Mumbai and Amritsar as part of the India leg of the tour and Lahore, Islamabad and Karachi in Pakistan.

The mayor described the visit as an "important mission" as there are many areas in which London can work with its counterparts in India and Pakistan, in business as well as tackling some of the "biggest challenges" such as air pollution and climate change on a city to city basis.

"In London, we are a beacon of tolerance, respect and diversity, which I will try my best to demonstrate," he said, when asked if he would intervene on the issue of tensions between India and Pakistan.

On Brexit, the senior Labour Party politician said that just because the UK has voted to leave the European Union (EU) does not mean that London is closed to talent from around the world.

"I am passionate about showing that my city will always be open to engaging with partners from around the world. While the government cannot engage in trade talks until Brexit negotiations are ongoing, there is no reason why we can't work on closer relations with the rest of the world," he said.

Highlighting that India remains the third-largest international

The Mayor of London, Sadiq Khan, will be in Delhi, Mumbai and Amritsar at the start of December to stress that companies from Brexit-hit London remain keen to do business with India.

student market in London, Khan said that he is keen to give "confidence" to Indians that the city remains open to their talent.

"World leaders like Gandhi, Nehru, Jinnah and Bhutto have all studied in the UK. My message will be that the underlying reasons have not changed and that I will continue to lobby the government on getting a good deal for London," he said, pointing out that the capital had not witnessed any lack of investment from India since the Brexit vote last year.

During the visit to the subcontinent, the mayor will meet senior politicians, business leaders and city chiefs and will be accompanied by his Deputy Mayor for Business, Rajesh Agrawal.

With his "London is Open" campaign at the heart of the visit, the delegation will also be promoting the city as a great location for Bollywood films.

"Meetings with a Bollywood star or two are planned. It pains me to see a film shot somewhere in Europe because I want them all to be shot in London. I am very competitive that way and competition is a good thing," Khan said.

According to official figures, London is strengthening its dominance as the leading destination for Indian investment in the UK as 44 per cent of the fastest-growing Indian companies are now based in London – an increase from 39 per cent last year and 25 per cent in 2015. Of these, tech is the top sector for Indian investment, accounting for 46 per cent of all Indian investment.

A delegation of business leaders taking part in the Mayor's International Business Programme will also meet up with Khan in Mumbai before the members move on to cover Hyderabad and Bangalore under Agrawal's leadership.

Besides business ties, security issues around counter-terrorism will also be touched upon but Khan stressed that he did not want the relationship between London and India be seen through the "prism of security" as he was keen to promote his first visit to the subcontinent as London mayor as a positive one.

INDIA-LONDON SNAPSHOT

Indian companies invest more in the UK than they do in the rest of Europe combined, and employ 110,000 – with six of the largest Indian employers based in London.

India is the third-largest international student market in London (after China and America), with students from India contributing £130m per annum to the London economy.

From 2005 to 2016 the UK was the second-largest destination for Indian FDI (behind only the US) – attracting 350 projects (9.6% of all of India's FDI projects) that invested £9.2bn and created 41,100 jobs.

London is strengthening its dominance as the leading destination for Indian investment in the UK as 44% of the fastest-growing Indian companies are now based in London – an increase from 39% last year and 25% in 2015.

Tech is the top sector for Indian investment, accounting for 46% of all Indian investment.

In February, the Confederation of British Industry (CBI) published research showing that the UK remains the single-largest G20 investor in India and supports close to 800,000 jobs in India.

Between 2008 and 2016, Film London has tracked more than £257million of inward investment from Indian film productions.

How yoga breathing techniques can help modern day professionals manage stress, improve productivity and luck.

BREATHING TECHNIQUES LINKED TO YOGA

by Keerti Mathur

Fifteen years ago, in a cosy meditation centre in Chiswick, west London, I attended an introductory talk given by two Art of Living yoga and meditation teachers from Mumbai who explained that by doing pranayama, yoga and meditation one's luck would improve.

Knowing that these two IIT graduates were very logical and rational individuals and not ones for conjecture and speculation, their words really grabbed my attention. They then went on to explain their point of view in greater detail, which drew from a discourse given by Art of Living's founder Gurudev Sri Sri Ravi Shankar (an authority on matters linked to the breath, mind and emotions).

At the heart of the techniques he teaches is the idea that when you are anxious, stressed or angry there is a corresponding pattern or rhythm to your breathing, it might be heavy and fast, but when you're relaxed and happy it will be slow and deep. Just as our emotions influence our breath, we are able to use our breath to influence our emotions and therefore state of mind. This is where it becomes very important to learn breathing techniques as they are techniques for managing stress and anxiety, enabling you to deal with negative thoughts and emotions as and when they come up.

But before I tell you what the two teachers famously known as Bawa & Dinesh (YouTube them) said, we should better understand what yogic breathing techniques or pranayama, are and how they have such a significant influence on us.

'Prana' means life-force energy and 'yama' means to store or house it. When one performs pranayama techniques, they are able to raise the level of prana in the body resulting in them becoming more energetic, alert and aware. The obvious but often bizarrely overlooked function of breathing is to oxygenate the cells in our body. Every cell in our body requires oxygen and we can only survive a few minutes without it. If a tissue in the body is denied its requirement of oxygen for just a few minutes, it will die and necrosis will follow quickly.

Just as our emotions influence our breath, we are able to use our breath to influence our emotions and therefore state of mind.

In the context of wellbeing, there is great attention given to detoxification. Over 70 per cent of the bodies toxins are released through the breath mainly because carbon dioxide (CO_2) is a by-product of cellular activity. But breath has other profound influences on the body. There is a significant neurophysiological effect on the body which relaxes muscles and other connective tissues in the body that hold tension and cause discomfort. Through this mechanical effect, blood perfusion in tissues improves due to tissues not being tight and restrictive. Good perfusion allows blood to deliver vital nutrients and remove toxins from tissues keeping them healthy and maintaining their function. This impacts physical energy levels positively as it improves cardio vascular fitness and reduces the work load of

the heart and lungs. All of this is achieved by sitting, relaxing and breathing. We often think that if we want to get healthy and fit we need to slog it out in the gym. Perhaps you do if weight-loss and or developing athletic fitness is your agenda, otherwise we are perfectly capable of staying healthy with a general level of day to day activity that includes the above techniques.

We live in a world which can be tough, competitive and pressured. If you work in an office environment, then you will likely be walking and on your feet for only a few moments throughout the day and you will spend most of your time sitting in chairs. The trouble here is that our shoulders, spines, pelvis and knees are not designed for that sort of lifestyle and need force, loading and activity to stay healthy.

Sitting doesn't promote full and deep breathing, if anything it teaches us to breath shallow and fast largely because the lungs are compressed and the diaphragm doesn't have space to move as much when sitting. It is for this simple reason that we need to practice deep voluntary breathing techniques because if our ribs and diaphragm don't move properly because of the restrictions imposed from sitting in chairs, they adapt and reduce output and function which over time can have significant negative effects on our health and state of mind.

Dr B.M. Hegde, a renowned professor, scholar and practitioner of medical sciences made a very keen observation in a talk given on diabetes and its treatment and management by natural remedies. He presented an epidemiological suggestion as to why we have psychosomatic dysfunctions, disease in the body and depression in the mind linked to stress, anxiety and emotions. He explained that our nervous system carries within it a survival mechanism commonly referred to as "fight or flight", which enables one to flee or defend/fight in circumstances of danger. The contemporary human, lives in civilisations where animals and other humans are not a constant threat to life, nor are they risking life and limb every time they venture from one place to another as our evolutionary forefathers did.

The contemporary human is faced with a distinctly different form of threat to life and existence. One's, boss! He or she may put pressures on you that exert an emotional stress which is ongoing, day after day, week after week and month after month. Our body's defences are continuously defending, fighting and supporting the faculties which enable us to survive these challenges without developing "life threatening" diseases. Hegde believes that eastern philosophies, remedies and techniques are more in line with supporting our bodies innate software and hardware used to tackle these problems, namely yoga, meditation and Ayurveda.

Coming back to Bawa & Dinesh, once they had made their fascinating claim that one's luck improves when one meditates and does pranayama techniques, they elaborated on how one's skill of observation, perception and expression becomes refined with the practice of breathing and meditation. Increased awareness and sensitivity leads to improved powers of objective observation of the environment in and around you and increased energy levels. Greater enthusiasm powers perception by linking mental faculties together and developing intellect as well as a calmer, less perturbed mind, which is able to observe instinct and intuition. When the mind is clear and knows what it wants and when it is calm and free of agitation our expression, be it through our words or our presence, becomes clear and obvious.

When these factors come together, actions followed by thought are far more fruitful and therefore beneficial. Energy literally follows thought, but when there is a chronic lack of energy and when thought is obtuse and uncommitted, the action will only reflect that. So how can situations and circumstances not go your way when you breathe and meditate? Practice them and see how your luck improves.

Keerti Mathur is an associate at the Gait and Posture Centre at Harley Street in London and has been practicing Osteopathy for 10 years. He is part of the Art of Living faculty and a keen musician. Under the guidance of Art of Living Founder Sri Sri Ravi Shankar, Keerti worked to set up India's first school of Osteopathic medicine in Sri Sri University Orissa.

BORN-AGAIN ANDHRA PRADESH IN A LEAGUE OF ITS OWN

by India Inc. Staff

The state claims to be the best one to invest in India but does not make the mistake of resting on its laurels.

Andhra Pradesh Chief Minister Chandrababu Naidu is forever a busy man. His media advisor, Srinivasa Rao, says keeping pace with him is no mean task. He claims he has lost at least 5 kgs in the last one year. Ever since Telangana was carved out of the erstwhile state in June 2014, it will not be incorrect to say that Andhra Pradesh has started its journey afresh. For Naidu too, it means a repeat of all the hard work he had put in to establish Hyderabad as one of the information technology (IT) hubs of country. That was more than two decades ago.

"In 1977, I heard that Bill Gates was coming to Delhi. I requested the US ambassador in Delhi to fix an appointment with Gates for me. Gates said that was not possible. I desperately requested for a 10-minute slot. It was then granted. When I went inside, we talked for a full 45 minutes about my vision.

"I made only one request: I asked him to open a Microsoft centre in Hyderabad. To which he said, he would consider the request, in due course. This was the beginning of Hyderabad's journey to an IT-hub," recalled Naidu at an investor's meet in Vishakhapatnam in January 2016.

Telangana has scalped Hyderabad too and a bulk of Naidu's time is devoted in looking after the progress of his new capital at Amaravati on the banks of the state's biggest river Krishna. Yet, while in most cases the division of a state takes a toll on the incumbent — Uttarakhand and Uttar Pradesh, Jharkhand and Bihar are cases in point — the rise of Telangana has not been at the cost of Andhra Pradesh. The latter regularly figures among the top three best states to live in and invest in the country.

As per the World Bank, the state was among the leading states for ease of doing business in 2016, a rank it shared jointly with Telangana. Both the states had a 98.78 per cent timely project implementation rate against the national average of just 48.93 per cent. The annual state investment potential index prepared by National Council of Applied Economic Research gives a more in-depth and holistic view of the state's edge over its peers. Based on six broad parameters – labour, infrastructure, economic climate, governance and political stability, perceptions and land — and 51 sub-indicators, Andhra Pradesh gained one spot to become the third most attractive for investment behind Gujarat and Delhi. The state emerged as the best in the ease of acquiring large tracts of land for industrial purposes — a critical problem in many states. The smoothness of the acquisition of 35,000 acres of farm land for the development of Amaravati is an example of that.

Naidu was quick to put the disappointment of losing Hyderabad to Telangana behind and has drafted an industrial policy often touted as the best in the country.

"The state was in a difficult and challenging position after the bifurcation but even then it has managed to grow every year," says Indian Finance Minister Arun Jaitley. "Already, several central educational institutions have been sanctioned for the State and the Centre would provide help in the construction of the new capital, Amaravati. I have no doubt that it will become one of the best cities not only in the country but the world."

Naidu was quick to put the disappointment of losing

The government has identified 10 areas for greater focus, including agro and food processing, aerospace, mineral-based industries, leather, automobiles, textile and energy.

Hyderabad to Telangana behind and has drafted an industrial policy often touted as the best in the country. In 2015-16, the first full fiscal after the bifurcation of the state, its state gross domestic product (GDP) grew by 10.99 per cent, higher than all others. Earlier this year, he unveiled the new policy, which among incentives lays a commitment of granting all state level clearances within 21 days. With any other leader, this would have gone down as a necessary bit of showmanship but given Naidu's track record, it did not take much to convince investors. The very next day, a clutch of 46 business houses signed memoranda of understanding (MoUs) with the state government to invest a cumulative Rs 35,745 crore ($5.3 billion).

The government has identified 10 areas for greater focus, including agro and food processing, aerospace, mineral-based industries, leather, automobiles, textile and energy. Land is allocated on a 99-year lease and outright sale for investments exceeding Rs 100 crore ($15 million). Steps have been taken to increase the plant load factor in the power plants from 70 per cent to 84 per cent, while transmission and distribution losses have been reduced to 12.5 per cent ensuring adequate power availability. T&D losses are targeted to be brought down further to 6 per cent by 2022 and an additional power capacity of 16,484 MW is coming up in the same time frame.

"We were impressed by Mr Naidu's forthright manner and no-nonsense demeanour. He does not talk like a politician but like a CEO," says Han Woo Park, President, Kia Motors India, which is building a 300,000 unit per annum factory in the state with an investment of Rs 12,800 crore ($2 billion).

Park, a former chief executive at India's second-largest car maker Hyundai Motors which is also Kia's parent firm, side-stepped neighboring Tamil Nadu where Hyundai has two single location factories.

He adds: "Andhra Pradesh ticks all the boxes. It is centrally located, has a long coast line, abundant availability of skilled manpower and a fast-developing supply chain network.

"Just like us, it is also a young state. We want to be part of this mutually successful story."

The state does not bank just on its leader's charisma alone. Among the string of incentives offered in the industrial policy include reimbursement of 100 per cent stamp duty and transfer duty paid by the industry on purchase or lease of land and 50 per cent of SGST for a period of seven years for large units. It also includes special packages for MSMEs and SC/ ST/BC entrepreneurs, including 100 per cent reimbursement of net VAT/ CST/ SGST for micro and small enterprises for a period of five years.

The policy lays a special thrust on start-ups, committing to handhold world class incubation centres. An Industrial Area Development Authority has been set up to encourage investments into specific investment zones. Another special package for women entrepreneurs envisages 25 per cent investment subsidy on fixed capital investments with a maximum limit of Rs 300,000 ($5,000) per unit and seed capital assistance to first generation entrepreneurs at the rate of 15 per cent of the machinery cost.

The biggest reform however is the single desk clearance system, with the State Commissioner of Industries heading it. Based on an e-platform, integrating pre-establishment and pre-operation stage clearances, the commissioner of industries is being vested with special powers to even give deemed clearances to projects on self-certification basis so that investors lose no time in setting up their units.

Naidu's new policy aims at attracting investments to the tune of Rs 12.5 lakh crores ($18 billion) and creating employment opportunities for 10,00,000 people by 2020 while also increasing the contribution of manufacturing to the State GDP from 9.95 per cent in 2013-14 to 25 per cent by 2020.

The results are there for all to see. At the state's investment summit in January 2017, 665 MoUs worth Rs 10.54 trillion were signed. This was more than the anticipated Rs 7 trillion investment as also a quantum jump from the Rs 6.21 lakh investment promised at the summit's previous edition in 2015.

Back in 2014, Naidu spoke of growing fast in the next five years to overcome the setback of the bifurcation and the loss of its capital city. After achieving much more than that in a shorter span and having established Andhra Pradesh as the state to be in, he is now aiming big.

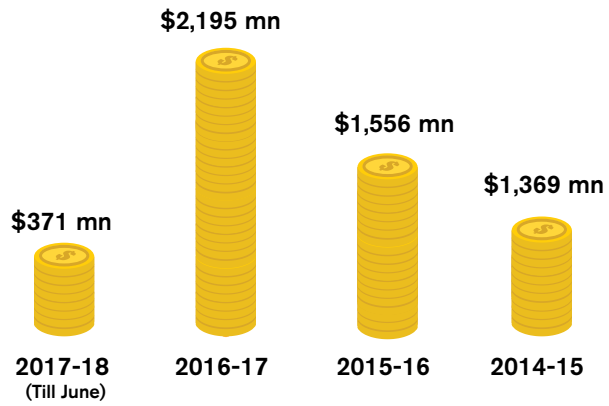
"By 2050, I want to see Andhra Pradesh as the world's most preferred destination for investment," Naidu says. "Amaravati will be one of world's top 10 cities."

It may sound like wishful thinking had anybody else said it but when Naidu says it, it is tough to disagree. Andhra Pradesh is thinking global.

Fact File: Andhra Pradesh

Andhra Pradesh lies on the south-eastern coast of India and has had a rebirth of sorts after it was bifurcated to create a new state of Telangana in 2014. It is popular as one of the most IT-friendly states of India and is currently finalising plans for its new capital in the form of a world-class Smart City of Amaravati.

Foreign Direct Investments



Source: Department of Industrial Policy & Promotion

Focus Sectors

- Agro and food-based
- Bulk drugs and pharmaceuticals
- IT and ITeS
- Textile and leather
- Tourism
- Automotive and auto components
- Gems and jewellery

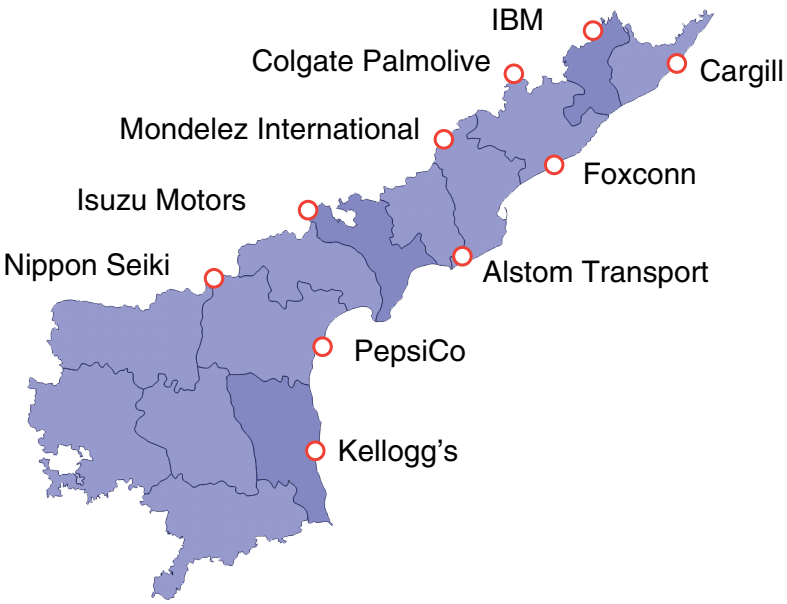
Source: India Brand Equity Foundation

Operational SEZs

Primary Industry	Name/Developer	Location
Multi Product	Visakhapatnam SEZ	Vishakhapatnam
Pharmaceuticals	Divi's Laboratories Limited	Chippada Village, Visakhapatnam
Footwear	Apache SEZ Development India Private Limited	Mandal Tada, Nellore District
Pharmaceuticals	Ramky Pharma City (India) Pvt. Ltd.	E-Bonangi Villages, Parawada Mandal, Visakhapatnam District
IT/ITES	Andhra Pradesh Industrial Infrastructural Corporation Ltd.	Madhurawada Village, Visakhapatnam
IT/ITES	Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC)	Madhurawada Village, Visakhapatnam
IT/ITES	L&T Hitech City Limited (formerly, Andhra Pradesh Industrial Infrastructural Corporation Ltd. (APIIC)	Keesarapalli Village, Gannavaram Mandal, Krishna District

Pharmaceuticals	Hetero Infrastructure Pvt. Ltd	Nakkapalli Mandal, Visakhapatnam
Multi Product	Andhra Pradesh Industrial Infrastructural Corporation Ltd.(APIIC)	Atchutapuram and Rambilli Mandals, Visakhapatnam
Textile	Brandix India Apparel City Private Limited	Duppituru, Doturupalem Maruture and Gurujaplen Villages in VIZAG

Major Foreign Companies



Advantage Andhra Pradesh

- Investor-friendly policies and responsive administration
- 3rd longest coastline in the country with a length of 974 km
- Gateway to East and South East Asian economies
- Home to leading integrated business cities – Sri City & Ramky
- 300 tourist locations and more than 7 million visitors every year
- Richly endowed with natural and human resources
- 24-hour supply of quality power
- Conducive business and regulatory environment
- A diversified industrial set up
- Well-connected road, rail, water and air network
- Large consumer base

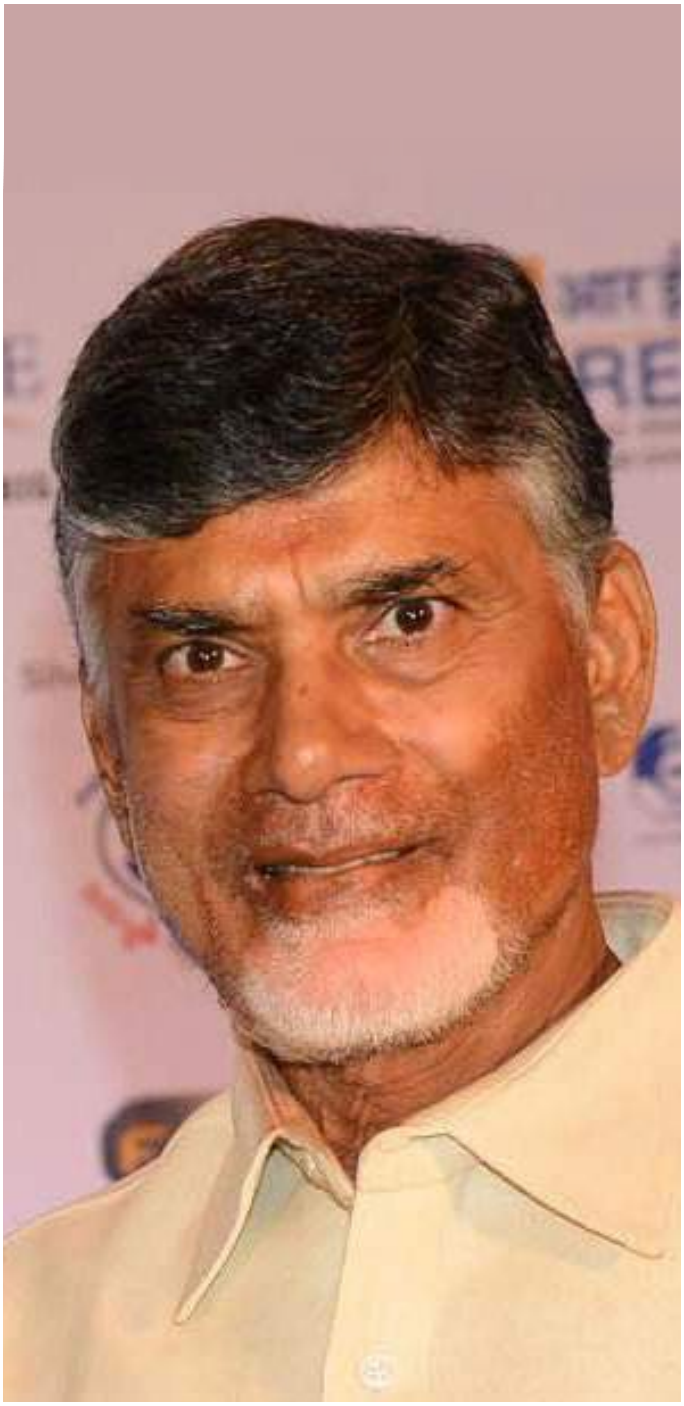
Andhra Pradesh Highlights

- Andhra Pradesh ranks first in prawn and fish production in the country and fourth in production of marine fisheries.
- Cumulative FDI inflows in Andhra Pradesh from April 2000 to June 2017 totaled to $14.14 billion.
- The Visakhapatnam port ranks 5th in terms of port traffic.

- As of June 2017, the state had 20 operational SEZs across diversified sectors, including textiles & apparel, food processing, footwear & leather products, multi-product, pharma, IT SEZs, etc.
- In April 2017, Kia Motors, a subsidiary of Hyundai Motors, signed a memorandum of understanding (MoU) with the state government to build a manufacturing facility in the state; attracting an investment of around $2 billion.
- During 2015-16, the state recorded the establishment of 110 IT companies & 156 start-ups.
- It is the first state in the country to have enacted the Industrial Single Window Clearance. The Act made it compulsory for new industries to register with the single-window to obtain clearances quickly.

INVESTING IN ANDHRA PRADESH A WIN-WIN SITUATION: **CHANDRABABU NAIDU**

The Chief Minister of Andhra Pradesh was in the UK recently to convince investors to choose his state for their new business ventures.



Andhra Pradesh Chief Minister N. Chandrababu Naidu made a plea for investors in the UK to invest in his state and participate in building Amaravati into "one of the best capitals in the world".

Addressing a gathering of entrepreneurs and business chiefs after accepting his Golden Peacock Award for Leadership in Public Life and Economic Transformation from the Institute of Directors (IoD) India in London, the Telugu Desam Party (TDP) chief said he was confident Andhra Pradesh would be among India's top three states by 2020 and be ranked top-most on the happiness index by 2029.

"I request all industry friends in the UK to come to Andhra Pradesh for investment, it is a win-win situation."

"There are a lot of reforms going on in our state, across automobiles, agro-processing, defence and aerospace and so many other areas. I request all industry friends in the UK to come to Andhra Pradesh for investment, it is a win-win situation. We do business in a sincere way so making profit is not difficult," he said.

The Chief Minister also highlighted India as the only investment destination in the world that has the potential of double digit growth.

"India is a great country with inherent strengths of demographic dividend, maximum English speakers and we are very strong in technology. Google, Microsoft, all these companies have one top executive from India and of all the Indians in such companies, one out of four will be from my state," he added.

Here is how he sold his relatively new-born state of Andhra Pradesh in his own words:

"I always wanted to make Andhra Pradesh a model state and for that I need all the support from UK investors. We have a good experience of working with the UK government.

All over the world there is a lot of focus on governance and accountability is key. In the corporate sector, business people are accountable to their shareholders. In government, I am accountable to my shareholders – that is the public. If I don't perform, I won't be re-elected.

India is a great country, everyone is aware of that. The only country with an opportunity to grow in double digits is India.

Our state was divided into two in 2014. Earlier, I had named Hyderabad as a brownfield capital in technology. Some of the best infrastructure was created in the city.

But now I am representing a new state, which faces its

own problems. But with dedication and hard work we are overcoming all problems. I strongly believe in leadership. A good leader can change the fate of a country.

For the last three years, I have spelt out a clear mission: by 2022, our state will be among the top three in the country; by 2029, we will be number one. But not just on an economic scale, we are working towards a happiness index and to make Andhra Pradesh a preferred destination in the world. That is the vision.

At the point of the state's bifurcation, 22.5 million units were found deficient but today we are a power surplus state. We have a strong power sector and if we create enough storage capacity, we can continue to supply cost-effective power and control pollution.

For businesses looking to invest, we can give you power, we can give you water, excellent human resources and even ease of doing business. Within a few years' time, we will be among the top destinations in the world for doing business.

Come to Andhra Pradesh for investment. It is a wonderful state. We have 1,000-km of sea coast and we are constructing one of the best capitals – Amaravati. There are several reforms underway.

Ultimately, businesses work towards nation-building. We facilitate things for the sector so that the country can make good progress."

Naidu's Vision 2029

- To be among top 3 developed states in India
- To be the No. 1 state in development & happiness
- To become a leading global investment destination

Key Business Reforms

- Single desk portal and single desk bureau
- Online processing of incentives
- Single ID for all state taxes
- Joint inspection for construction permits, labour requirements
- Online building plan approval rolled out
- Online allocation of inspectors by forests and factories

Energy Efficiency Measures

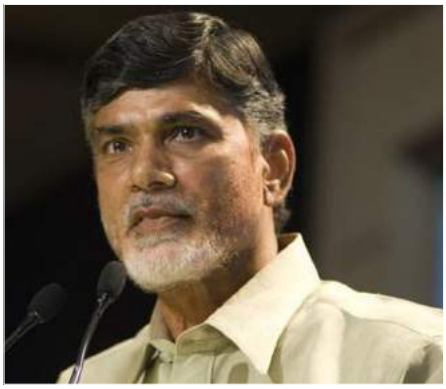
- 1000MW renewable energy capacity addition in 2016
- 20mn LED bulbs distributed
- First state to initiate grid connected solar pump sets
- Online street light monitoring system

Digital Infrastructure

- eOffice: An ambitious project to make offices paperless. The state has digitised over 978,376 files.
- Core Dashboard: Provides access to data from over 33 departments.
- Fibre Grid: The AP Fibre Grid programme is aimed at taking optic fibre to distant corners of the state.
- Blockchain: AP claims to be the first in Asia to introduce blockchain technology to fight cyber-crime. Plans afoot to set up a Blockchain Institute of Technology in Vishakhapatnam in collaboration with University of California, Berkeley.
- ePragati: A framework for implementing e-governance and e-services.

**Source: Andhra Pradesh Economic Development Board (APEDB)*

SHORT TAKES



Amaravati to have South Korean influence

A "South Korea City" is expected to come up in Andhra Pradesh's new capital, Amaravati, or elsewhere in the state as Chief Minister N. Chandrababu Naidu invited industrialists from the country to set up their ventures in the state.

Naidu told a delegation of South Korean industrialists: "We will extend full cooperation and encouragement from the government if you make Andhra Pradesh your second capital and set up industries in a big way. We will develop a South Korean City, on the lines of Busan in your country.

"We will sign MoUs if you come up with comprehensive proposals and designs."

He tried to woo other industrialists from the country by presenting South Korean automobile giant Kia Motors, which is setting up its car manufacturing unit in Anantapuramu district, as the mascot.

"We share similarities in size and population and we are both blessed with a vast coastline. We are rich in natural resources and I am very interested to collaborate with South Korea," he said.

Naidu offered land, water, uninterrupted electricity and other incentives for the Koreans in his bid to woo them to the state.

Andhra Pradesh fine-tunes tourism policy

The Andhra Pradesh government will soon be announcing a more investor-friendly tourism policy by making certain changes to the 2015-20 policy, announced two years ago, to make execution of projects speedier and attractive for investors.

Bhuma Akhila Priya Reddy, Andhra Pradesh Tourism and Culture Minister, said the tweaked tourism policy would address issues related to land allocation and its high cost, lease rents, incentives for smooth and speedy implementation of tourism infrastructure development projects in all 13 districts.

She disclosed that the state government proposes to allot a 240-acre site in Madhurawada, Visakhapatnam, to be developed as a resort and theme park on the lines of Genting Highlands in Malaysia. The other major projects include the development of Bhavani Islands, village tourism, 39 beach locations, and jetties near ports as tourist spots.

Krishna Kishore, CEO, Economic Development Board, AP, said the huge industrial investments flowing into the state from Japan, Singapore, US, would also open up the tourism potential.

Also, a proposed 1,000-km road along the beach would open up beach-front tourism.

Andhra signs key food processing pacts

The Andhra Pradesh government signed 17 initial pacts worth Rs 4,000 crore ($615 million) with reputed global and domestic players at a recent three-day World Food India 2017 organised by the central government.

A major MoU has been signed with the UAE's Sharaf Group, where it has promised to invest Rs 2,000 crore (almost $308 million) for setting up of a logistics and food park.

The state's Chief Minister, N. Chandrababu Naidu, held one-on-one meetings with the corporate leaders in the food processing industry and invited them to invest in the state, assuring them of full cooperation in terms of providing land, water and necessary logistics for setting up the business.

Haldiram's has signed an agreement with the state government to establish a food processing and manufacturing unit with an investment of Rs 400 crore ($61.5 million).

Janani Foods Pvt has also promised to invest Rs 500 crore ($77 million) for the setting up of an integrated horticulture project in the state.

Keventer Agro signed an MoU with an investment promise of Rs 250 crore ($38.5 million) for setting up of a banana procurement and processing unit.

Other major MoUs were signed with ITC, Sesh Sai Foods, MNR Agri Food Products, Foods and Inns, Freshfrugies, RF Exports, Tifosi Foods, Waycool and Supermarket Grocery Supplier Pvt Ltd (BigBasket.com).

An Expat's Guide to Amaravati

Top Attractions – In and Around Amaravati:

Amaralingeswara Temple
On the banks of river Krishna, stands the temple of Amaralingeswara. Dedicated to Lord Shiva, the temple houses 15-feet-high white marble Shiva symbol. The site is believed to have been an important pilgrimage site for the Buddhists, with the architecture of the temple and surrounding area reflecting a strong Buddhist influence. Amaralingeswara is among the famous Pancharamas temples of Andhra Pradesh.

Amaravati Mahachaitya
Popularly known as the great stupa at Amaravati, the Amaravati Mahachaitya forms part of the ruins of an ancient Buddhist monument on this site. It is considered as one of the biggest stupas of the state of Andhra Pradesh, erected during Mauryan rule (3rd century BC) and was under constant patronage during subsequent dynasties and in prominence as late as 14th century AD. The rich sculptural carvings of this stupa are in a class of their own, popularly known as the Amaravati School of Art.

Amaravati Archaeological Museum
This museum is home to many relics that date back to thousands of years, discovered during excavations. It displays the wealth of Amaravati dating back to the 3rd century BC, through a galaxy of sculptures that once were a part of Mahachaitya (the Giant Stupa). There are different galleries that take you close to the very old history of Amaravati and the life of the Buddhists in those days.

Undavalli Caves
These caves are a monolithic example of Indian rock-cut architecture and one of the finest testimonials to ancient Viswakarma Sthapathis. Dedicated to Anantha Padmanadha and Lord Narashimha, they were used by Buddhist monks as rest houses. The caves were carved out of solid sandstone on a hillside in the 4th to 5th centuries AD. The main cave is one of the earliest examples of Gupta architecture, primarily primitive rock-cut monastery cells carved into the sandstone hills.

Kondaveedu Fort
Located on a hilltop, this historical fort houses around 21 stupas. There are also many temples, residential structures, pillared halls and the entrance gateways that attract tourists. The panoramic view from the summit is awe inspiring and is ideal for trekking. Recent archaeological excavations unearthed a 14th century inscription penned by Kavi Sarvabhauma Srinadha and in idol of Raja Rajeswari.

Top Hotels expected:

ITC Limited
NOVOTEL HOTELS & RESORTS
ClubMahindra
THE LEELA
Holiday Inn
HILTON WORLDWIDE
Marriott

Popular Local Dishes:

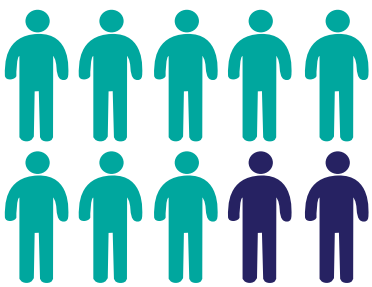
- Bandhar Laddu
- Bobbattu
- Pulusu
- Ariselu
- Ulava charu
- Pesarattu
- Aavakaaya pickle and gongura pickle

Population and Jobs

Population by 2050

4.5 mn -0.1 mn

Jobs by 2050



1.5 mn in Service sector

0.3 mn in Industrial sector

1.8 mn total

The city will be developed in three phases

1 Phase

Timespan
10 Years

Catalyse urban developments within the city by building large numbers of infrastructure projects that will create the critical base for development

Land to be developed
15,280 hectares

2 Phase

Timespan
10 Years

Medium-term development to monetise urban development the city

Land to be developed
7,900 hectares

3 Phase

Timespan
15 Years

Long-term development to complete the vision and goals that were set for the city

Land to be developed
16,600 hectares

Connectivity

Airport

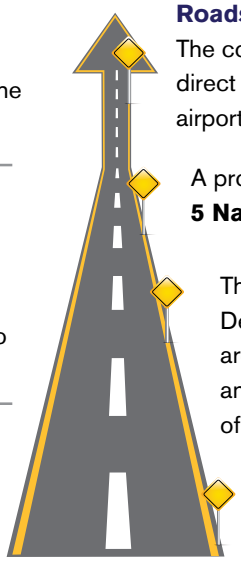
The Andhra Pradesh government is planning to launch an airline, named after Amaravati, once the state capital is developed.

Hyperloop Transportation

The Hyperloop Transportation Technologies (HTT) has signed an agreement to connect Amaravati and Vijayawada through a "tube modular transport system" that runs free of friction to cover the distance of over 35 km between the two cities only in five minutes.

Metro Rail

A rapid transit system is proposed, which will consist of two lines in the initial phase with an extension to Amaravati in a subsequent phase.



Roads connectivity plans

The completion of a new ring road will provide direct access to Amaravati from Gannavaram airport.

A proposed multi-modal highway will cover **5 National Highways** and **10 state highways**.

The Andhra Pradesh Capital Region Development Authority (APCRDA) officials are set to lay seven sub-arterial roads (four and six-lane) in and around the capital city of Amaravati

An express highway will connect Amaravati and Anantapur

Area distribution

Park and gardens	Residential land	Commercial & industrial land	Water bodies	Civic facility
9,860 hectares	8,060 hectares	7,745 hectares	4,815 hectares	1,300 hectares