

# India Now Business and Economy

October-November 2014 | Volume 01 | Issue 04

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### INTERVIEW

How IBEF is promoting *Brand India Pharma* globally

### INNOVATION CORNER

An Indian company marks its presence in IoT space

### RURAL UPDATE

Taking affordable healthcare to India's hinterland



# Digital India

## A Vision for Empowerment

Digital India is a visionary programme where technology facilitates governance to build a nation of empowered citizenry and an enlightened knowledge economy through a multi stakeholder participative process.



# THE DIAMOND HUB

14 out of 15 of all the world's diamonds are processed in India.



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# EDITORIAL

## Celebrating India 3.0 India prepares to ride into a digital horizon.

**D**igital India...India 2.0...India 3.0...Prime Minister Narendra Modi's sweeping vision of Digital India has the world in its grip. Apart from its grand goal of making India a digitally empowered knowledge economy, what has also generated much interest is the emphasis of the *Digital India Programme* on inclusive governance. The Government of India has stressed on the multi stakeholder nature of the programme with citizens at the centre of it. This focus has brought a paradigmatic shift in the perception of the industry and the global community regarding India— it is being hailed as a land of immense opportunities in the digital space. We try to encapsulate this vast, visionary mandate and the opportunities embedded in it, in our *Cover Story*.

Internet of Things (IoT), wearable technology and connected devices, all new concepts with bold innovations, are an exciting space to be in. Every new development here takes us that one step closer to Web 3.0. Innovation is the byword for survival in this fast paced world and companies like Connovate Technologies thrive on the challenge. Read about this innovative Indian startup in *Innovation Corner*. Medical diagnostics is another field in which India is taking rapid strides. A huge market globally, what makes the India story different is the expertise and innovation that the Indian players bring to the field. Take for instance SRL Ltd, a company that has raised the bar and set new benchmarks for the industry. We feature its winning prescription in *Emerging Entrepreneur*.

India's profile as a hub of research and development is well known. Perhaps a little less known is its trailblazing success in the field of low cost primary healthcare services. Read the inspiring story of Vaatsalya Healthcare in *Rural Update*. This issue of *India Now* reiterates India's innovative streak across enterprises, be it biodynamical farming of tea in Darjeeling or the genius and enterprising spirit of its entrepreneurs. Read about it and Celebrate India!



Sangita Thakur Varma

## India Now Business and Economy

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Aparna Dutt Sharma, CEO, IBEF, on taking *Brand India Pharma* to the next level.

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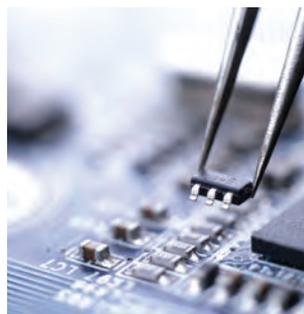
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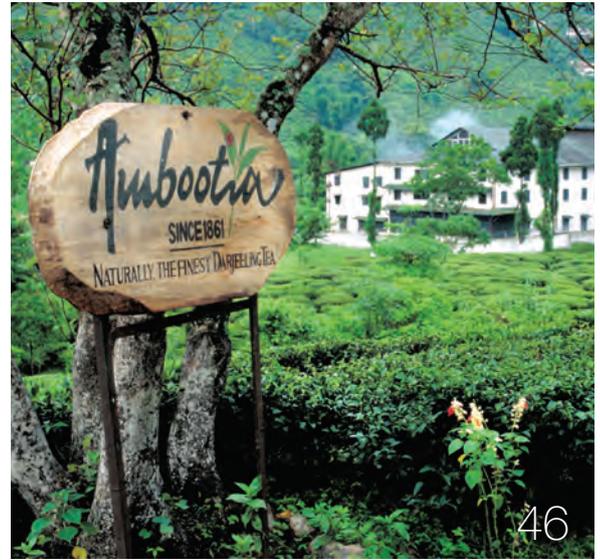
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VOICE OF A VISIONARY

“When wages are good, and consumers feel like they’ve got money in their pockets, that ends up being good for business...”

— Barack Obama, President, USA



# National ROUND-UP

PHOTO BY THINKSTOCKPHOTOS.IN



## Israel, India Strengthen Business Ties Sign defence deals

**INDIA AND ISRAEL** are on a drive to boost cooperation with the Government of India signing a series of defence and technology deals with Israel in recent months. The Indian Cabinet cleared the purchase of Israeli missiles for Indian Navy in September and in October it decided to buy Israeli anti-tank guided missiles and launchers worth US\$ 520 million. The moves came soon after Prime Minister Narendra Modi held talks with Israeli Prime Minister Benjamin Netanyahu, on the sidelines of United Nations General Assembly in New York in September. A jubilant Netanyahu told Modi, “We think the sky

is the limit,” adding, “We’re very excited by the prospects of greater and greater ties.” The bilateral relations received a major fillip after Union Home Minister Rajnath Singh visited the West Asian country in the first week of November.

India has now become the largest buyer of Israeli military equipment. Israel is among India’s largest suppliers in defence deals. While Israel Ports Co is partnering with India’s Cargo Motors to build a deepwater port in Gujarat, Israel’s TowerJazz is teaming up with India’s Jaiprakash Associates and IBM with plans to build a US\$ 5.6 billion chip plant near Delhi.

DATA BRIEFING

**US\$  
520  
Million  
India to  
spend on  
military  
equipment  
purchase  
from Israel**





## Gujarat Unveils New IT Policy Aims to increase industry turnover to US\$ 1 billion in five years

**THE GUJARAT** government unveiled its new IT policy recently which gave a pronounced push to investment in IT/ITeS sector in the state with the aim to increase industry turnover to US\$ 1 billion and provide employment to 10 lakh people in the next five years. The new policy has a slew of incentives for the IT industry. An eGovernance policy for the next five years with the aim to create a separate IT cadre was also announced. A special package of incentives is on offer on a case-to-case basis for mega IT/ITeS projects that promise to create new employment for over 1,000 persons in the case of IT and 1,500 persons in the case of ITeS units. The state government has drawn up the eGovernance policy 2014–2019 in such a way that it will be perfectly aligned with Prime Minister Narendra Modi’s *Digital India Programme*. Plans to implement e-Gujarat—an integrated state portal—to deliver services of various departments is also on the anvil.

RESEARCH UPDATE



### India, UK Set up Fund for Research

At the fourth UK-India Science and Innovation Council meeting held in Delhi in November, the two countries announced the setting up of a £50 million Newton-Bhabha Fund to scale up cooperation in the fields of science, research and innovation and provide financial assistance to the best minds.

### THEY SAID IT TONY ABBOTT

*When & Where: During Prime Minister Narendra Modi’s visit to Australia post-G20 summit in November.*

**“We want to go further and that’s why the next priority for Australia is a comprehensive economic partnership agreement with India... If I may say so, this is a moment in time. This is the time to get this done.”**

— Tony Abbott, Prime Minister, Australia



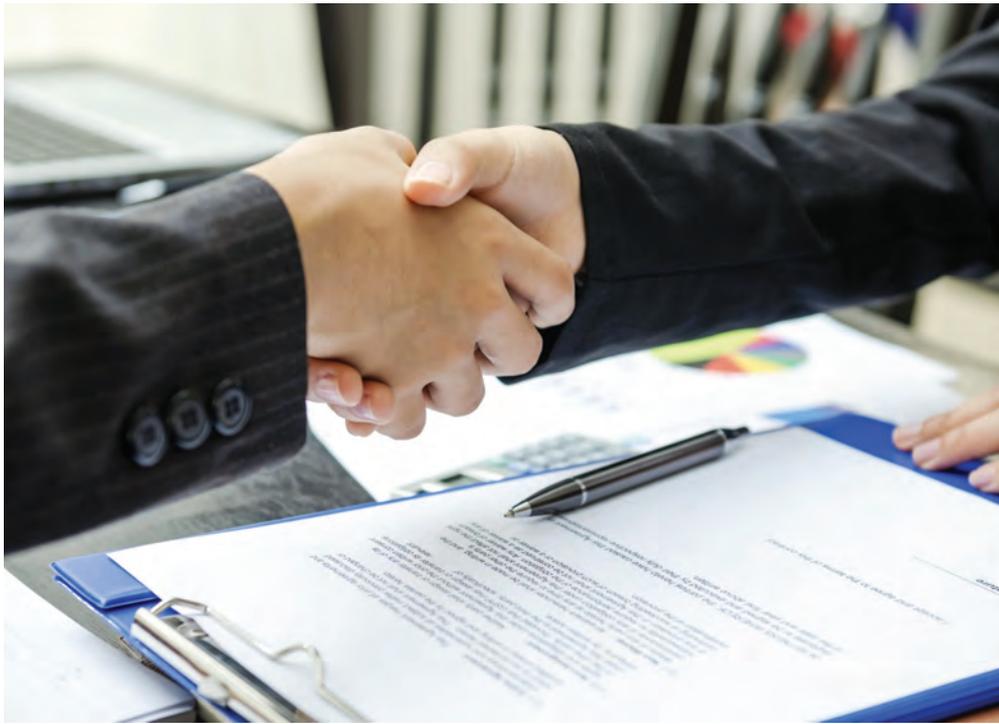


PHOTO BY THINKSTOCKPHOTOS.IN

## India, China Boost Business Ties Ink MoUs worth US\$ 2.5 billion

**INDIAN** and Chinese companies signed Memorandums of Understanding (MoUs) worth more than US\$ 2.5 billion during the visit of a Chinese delegation to the country in November this year. The business meeting—India-China (Zhejiang) Business Cooperation Conference—was organised by the Federation of Indian Chambers of Commerce and Industry (FICCI) in association with Zhejiang Federation of Industry and Commerce. One of the biggest MoUs signed was the one between Kunlun Chuangyuan Investment Co Ltd (Zhejiang) and Kiri Infrastructure Pvt Ltd (India) worth US\$ 1,500 million for the project India International Trade Centre in Gujarat.

The meeting was attended by Indian's powerful

business industrialists and a 100-member business delegation from China, where both the sides exchanged ideas on way forward to take their economic engagement to the next level.

The Chinese delegation also met Union Finance Minister Arun Jaitley during their visit. Calling the visit of the Chinese delegation “very successful”, Xia Baolong, Chairman of the Standing Committee of Zhejiang Provincial People's Congress, said that India and China were destinations for foreign direct investment and China was encouraging its businessmen to invest in India. He called for people to people exchange between the two nations to strengthen ties.

Jaitley, while noting that both India and China were large countries and growing

economies, observed that the relationship between the two countries had deeper regional, global and strategic importance. He reiterated his government's commitment to improving relations as desired by Prime Minister Narendra Modi in his concept—INCH (India-China) towards MILES (Millennium of Exceptional Synergy).

The India-China Business Meeting had been organised by FICCI on the sidelines of President Xi Jinping's visit to India. Some notable results of the meeting included, Chinese companies signing buying orders worth US\$ 740 million, agreements regarding setting up of Chinese industrial parks in India and two MoUs worth nearly US\$ 7 billion in Gujarat and Maharashtra.

### SOUND BYTES



“We believe India is going to have

economic growth in excess of 10 per cent... We are looking at creating a separate company and investing to the tune of approximately US\$ 1 billion with our money, Fairfax. It will be a separate company only for India.”

*V Prem Watsa, CEO, Fairfax Financial Holdings*



“If both nations (China & India) work

together they will benefit from each other...this is a great opportunity for entrepreneurs of both nations to work together to improve the culture and the world.”

*Jack Ma, Founder, Alibaba*



“India now has more stores than any market

outside of the US. Clearly, it is a major priority for us and will continue to be.”

*Patrick Doyle, Global President & CEO, Domino's Pizza*



**INDUSTRY UPDATE**

## Indian Textile Industry may Grow to US\$ 500 Bn by 2025 Pushed by demand for polyester fabric

**THE INDIAN** textile industry has the potential to grow five-fold to touch the US\$ 500 billion mark by 2025, on the back of a spurt in demand for polyester fabric, says a study by management consultancy firm Wazir Advisors and PCI Xylenes and Polyester. The report said that the country's textile industry, which is currently estimated at US\$ 108 billion, can grow to US\$ 500 billion in the next 10 years. If the Indian textile industry takes the right steps and gets adequate policy support from the government, in addition to increased R&D favouring polyester fibre production, it could achieve this target. This will also catalyse another 35 million jobs and US\$ 200 billion of investments, the study added.

US\$  
**200**  
BILLION  
INVESTMENTS TO BE  
CATALYSED IN THE  
SECTOR IN 10 YEARS.

The US\$ 500 billion market comprises of domestic sales of US\$ 315 billion as against US\$ 68 billion currently and exports of US\$ 185 billion versus current exports of US\$ 40 billion. Also, with global brands setting up more shops in India and market share of women's wear increasing, India may start consuming more polyester than cotton in the next five years, which will increase the market size of polyester fibre by 1,500 thousand tonnes, the report said. It called upon the Indian textile industry to bring a tilt in the fibre mix, which is presently favoured towards cotton (55 per cent), while the global fibre consumption is tilted towards polyester fibre (50 per cent).

**INVESTMENT TRACKER**

## SEBI Allows 123 Alternative Funds to Operate in India New class of market intermediaries to pool capital from investors



**INDIA'S** market regulator Securities and Exchange Board of India (SEBI) has allowed nearly 123 entities to set up alternative investment funds (AIFs), the newly-created funds for the purpose of pooling in capital from Indian and foreign investors for investing as per pre-decided policy. AIFs can operate broadly in three categories. Category one AIFs are those funds that get incentives from the government, SEBI or other regulators. Category two includes AIFs that can invest anywhere in any combination but are

prohibited from raising debt, except for meeting their day-to-day operational requirements and Category three AIFs are those which trade with a view to make short-term returns. The AIFs that have registered with SEBI in November are Religare Dynamic Trust, Indus Way Emerging Market Fund and Carpediem Capital Partners Fund and in October are Singular India Opportunities Trust and India Participation Fund. The regulator had notified in May 2012, the guidelines for this new class of market intermediaries.

**TOURISM TRACKER**

## e-Visa for 43 Countries Quick medical visa to SAARC patients

**IN A SIGNIFICANT** step that could be a tourism booster, the Government of India in November this year, launched online visa facility for 43 countries, which include the US, Russia, Brazil, Australia, Japan and Isra-

el. Travellers can apply for a visa from their native countries and receive approval within 72 hours. The electronic travel authorisation (ETA) will be valid for 30 days and the visa fee has been fixed at US\$ 62. The facil-



ity will be made available at nine airports including Delhi, Mumbai, Bengaluru, Chennai, Kochi, Goa, Hyderabad, Kolkata and Thiruvananthapuram. Besides, Prime Minister Narendra Modi's announcement at SAARC Summit in Nepal to issue immediate medical visas to patients from SAARC countries will boost the country's healthcare industry.



# INDIA WATCH

Area	Population	Male	Female	Population Density	Urban Population
3,287,263 sq km	1.27 billion	655.8 million	614.4 million	421.4 per sq km	390.216 million

**Key performance indicators** of the Indian economy with patterns, trends and forecasts

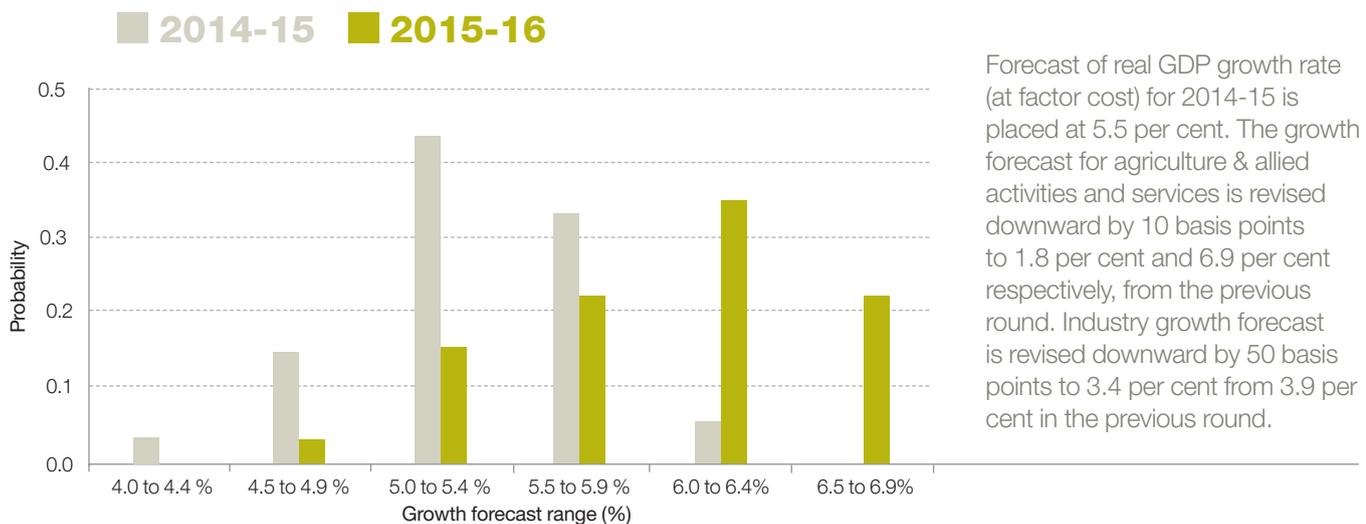
## India's Economic Outlook Projection

Fiscal year	2011-12 (A)	2012-13 (A)	2013-14 (R)	2014-15	2015-16
GDP growth	6.2%	5%	4.7%	5.5% (P)	6.5% (P)
CPI	8.87%	9.5%	8.45%	8.3% (Q4)(E)	6.6% (Q1)(E)

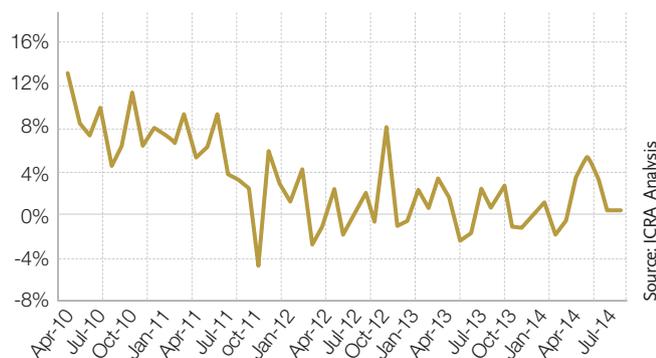
Source: RBI

A- Actual  
R- Revised  
E- Estimated  
P- Projected

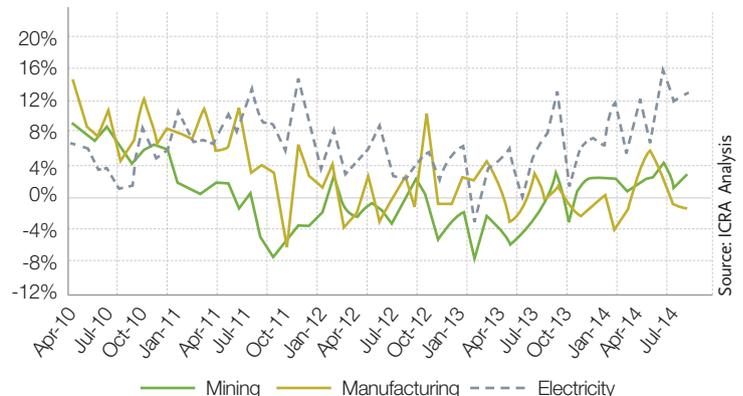
## Mean Probability Pattern of Growth Forecast



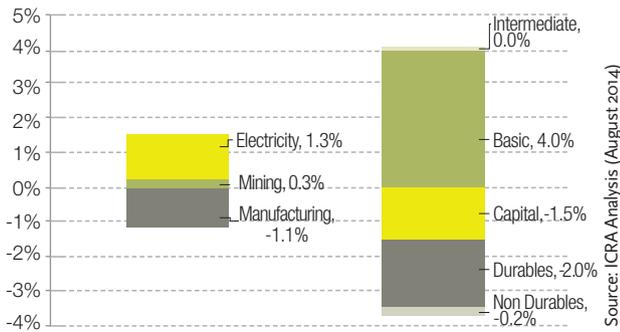
**Chart 1: Year-on-Year Growth in IIP**



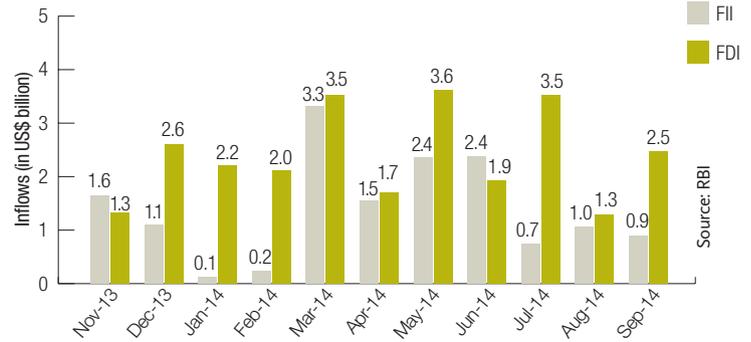
**Chart 2: Year-on-Year Growth in Sectoral Indices**



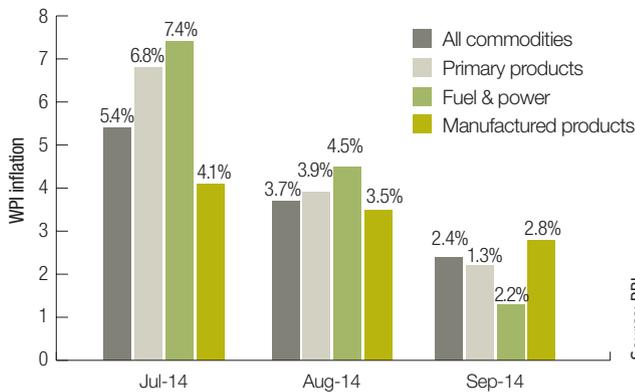
**Chart 3: Contribution to IIP Growth**



**Chart 4: Net FDI and FII Inflows**



**WPI MoM Inflation**



**Key Macroeconomic Indicators**

**Cash Reserve Ratio (%)**

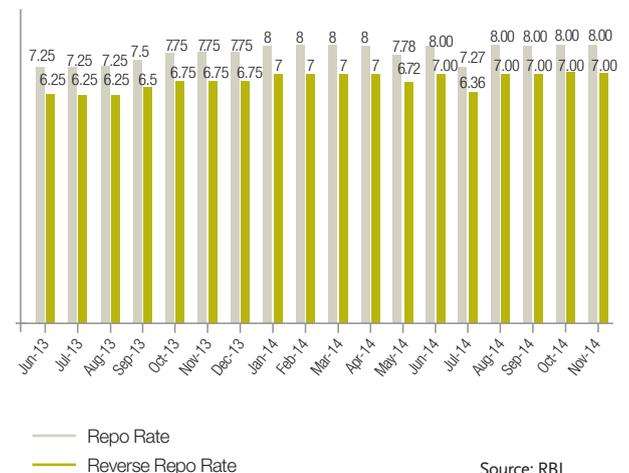


**Stock Market**

Month	Sensex	%age Change	S&P CNX NIFTY	%age Change
Feb-14	20,521.34	0%	6,098.74	-2%
Mar-14	21,815.71	6%	6,507.98	7%
Apr-14	22,585.44	4%	6,760.85	4%
May-14	24,217.34	7%	7083.16	5%
Jun-14	25,413.78	5%	7542.84	6%
Jul-14	25,024.35	-2%	7649.88	1%
Aug-14	26,638.11	6%	7787.35	2%
Sep-14	26,630.51	0%	8053.53	3%
Oct-14	27,865.83	5%	7953.11	-1%
Nov-14	28,032.85	1%	8354.68	5%

Source: RBI

**Repo Rate and Reverse Repo Rate (%)**



**Currency Exchange Rate**

Month	INR/US\$	INR/GBP	INR/JPY	INR/EUR
Feb-14	62.25	102.97	84.96	61.01
Mar-14	61	101.4	84.32	59.61
Apr-14	60.34	101	84.31	58.84
May-14	59.91	102.68	81.65	58.91
Jun-14	59.73	100.98	81.24	58.53
Jul-14	59.31	99.94	81.49	58.28
Aug-14	60.90	101.81	81.14	59.17
Sep-14	60.86	99.31	78.60	56.77
Oct-14	61.34	98.72	77.91	56.87
Nov-14	61.57	97.32	76.81	53.40

Source: RBI



**COMPANY DASHBOARD**

- ▲ **COMPANY**
  - Deutsche Post DHL
- ▲ **ENTERED INDIA**
  - 1998
- ▲ **HEADQUARTERS**
  - Mumbai
- ▲ **AREA OF FOCUS**
  - Logistics
- ▲ **NETWORK**
  - 103 warehouses
  - 5,000 plus employees
  - Operational in more than 50 cities

# THE LOGISTICS OF SUCCESS

With DHL e-Commerce, Deutsche Post DHL has logged into India's booming e-commerce sector firmly even as it expands its presence in other business segments. **BY SANJAY K OJHA**

**L**ogistics companies in India never had it so good. According to CeMAT India, the industry growing at an annual rate of 15 per cent is currently one of the most dynamic sectors of the Indian economy. A world class supply chain becomes the prerequisite to any planned growth of the economy and the government is looking to massive investment upgrades in infrastructure to ensure a smooth ride for the industry. For the logistics



industry, benefits are accruing from this latest thrust on growth as also from the booming e-commerce industry.

It was in fact the potential of India's e-commerce market that caught the eye of Deutsche Post DHL, the world's largest logistics providing German company, which estimates that the e-commerce market in the country is growing at 12 per cent annually. It was with the aim to penetrate the e-commerce sector in the Asia Pacific region that the company ran its pilot project in India this year. Blue Dart Express, a subsidiary of Deutsche Post DHL's business unit DHL e-Commerce, provides the perfect base for the company's foray into the e-commerce space across the region with its strong domestic delivery system and network capabilities in India. The buoyant CEO of DHL e-Commerce Asia Pacific, Malcolm Monteiro, says, "Several studies reveal that Indian e-commerce business, with 250 million internet users, remains underdeveloped, wherein online shopping was valued at €2.3 billion in 2013. This is expected to rise to €4.1 billion by 2018. Blue Dart provides services to 34,154 locations in India today. Therefore, we are well-positioned to fulfil the future requirements of both merchants and consumers." As per Malcolm, DHL e-Commerce is investing aggressively in infrastructure and the development of fulfilment centres and multiple delivery options to position the company as the preferred global provider of e-commerce related services.

Deutsche Post DHL's new plan, *Strategy 2020: Focus. Connect. Grow*, is a continuation of the positive momentum generated by its successful Strategy 2015, and defines the Group's next phase of development. Among the focus areas of Strategy 2020 are further expansion of logistics services in the world's emerging markets and international expansion of the company's successful parcel business in order to take advantage of the global e-commerce boom. The decision to enter India's e-commerce sector is



**“As the leader in the express air and logistics space, Blue Dart recognised the far reaching scope of e-tailing and has invested heavily in technology...”**

—Malcolm Monteiro  
CEO, DHL e-Commerce Asia Pacific

already paying rich dividends for the logistics major that witnessed 40-50 per cent increase in orders through retail bookings in the run up to Diwali. These included orders from e-commerce players and bulk orders from individuals, according to media reports. In fact, most logistics companies have reported an increase of around 50 per cent in business during that period.

According to the company's internal estimates, Blue Dart, which was acquired by DHL Express in 2005 from three Indian promoters, today controls 52 per cent of the domestic air express industry, with a share of 14 per cent in the ground segment, besides maintaining robust growth in terms of both volume as well as value. Between January 2012 and March 2013, Blue Dart carried over 142.70 million domestic shipments and over one million international consignments, weighing over 594,900 tonnes. The consignments included vast volumes

delivered to 33,758 locations in India by Blue Dart and to over 220 countries and territories worldwide through its parent company, DHL Express. Besides, Blue Dart currently provides services in more than 780 locations across Tier II, III and IV cities in India. "As the leader in the express air and integrated transportation, distribution and logistics space, Blue Dart recognised the far-reaching scope of e-tailing and has invested heavily in technology and infrastructure to create differentiated delivery services, quality services and customised solutions for clients. Blue Dart's expertise, leadership and technology combine well in terms of facilitating seamless integrated transportation, distribution and supply chain management, from, to and within the region, adding value to its customers," opines Malcolm.

#### **Aggressive Investment**

The Indian organised express market—a part of the overall logistics industry—is valued at about ₹5,300 crore (US\$ 863.19 million) and is expected to grow at a compounded annual growth rate (CAGR) of about 10 per cent. In its endeavour to tap the rapidly expanding market, the German postal giant, in 2012, announced investments to the tune of US\$ 123 million to expand its operations in India. This year, the company further announced plans to invest more than €100 million in India over the next two years to strengthen infrastructure across all divisions, with an eye on potential growth opportunities in express (small parcel transportation), aviation, e-commerce, warehousing and freight-forwarding businesses. Deutsche Post DHL consolidated its position further, in 2012, as the leader in international freight forwarding, supply chain management and customs brokerage services in India, by acquiring the 24 per cent stake held by Lemuir group in the joint venture, DHL Lemuir Logistics Private Limited. The entity was then renamed as DHL Logistics Pvt Ltd. The supply



chain unit of Deutsche Post DHL, which operates close to 103 warehouses across 50 cities in India, decided, in 2012, to invest €100 million over four to five years to set up eight warehouses and new transport facilities in the country and also double headcount from 5,000 to 10,000 employees by 2015.

In fact, as a part of its consolidated strategy and a sound and focussed approach, DHL has been steadily investing in facilities across the country. DHL Supply Chain has built a new multi-client state-of-the-art facility at Bengaluru. Compliant with international standards, this 136,000 sq ft facility has a clear height of 12 metres, 11 loading bays, modern energy saving devices and advanced security features. The multi-client site offers enhanced synergies to customers from various industries especially in the area of transportation and addresses their needs of consolidation, flexible space requirement and seasonal variables and simplifies end-to-end supply chain services. The facility attracted one of its first major clients, Levis, this November.

**Diversified Operations**

DHL, a global market leader in the

logistics industry, has been steadily building its logistics presence and strengthening its leadership position since it first ventured into the Indian market 35 years ago. The American courier company was acquired by German enterprise Deutsche Post in 1998, and renamed DHL Express. The DHL brand in India now comprises—DHL Global Forwarding, DHL Express, DHL Supply Chain and Blue Dart—in the domestic and global logistics business. DHL offers expertise in international and domestic express, air and ocean freight, customs brokerage, primary and secondary transport and contract logistics solutions. DHL Global Forwarding has invested in a facility at a free trade zone (FTZ) in Tamil Nadu, which provides customers tax-free profitable infrastructure support. DHL Supply Chain has recently launched two world-class multi-client site (MCS) facilities at Bhiwandi in Mumbai and Luhari in Delhi, which provide quality infrastructure to customers with cost-effective solutions.

With significant growth in life sciences and healthcare in Asia, temperature controlled logistics

(TCL) is an important product offering by the German MNC. TCL solutions are on offer in 103 countries across the globe. In the domestic segment, Blue Dart also has full refrigeration infrastructure, packaging, temperature loggers, etc to handle such temperature-sensitive shipments.

**Future Strategies**

The company is finalising plans to add one million square feet of multi-user warehousing facilities in south and central India by the end of next fiscal. The German firm has added one million sq ft this year in Mumbai, Pune and Gurgaon, taking its overall capacity to six million square feet. On the transportation front, DHL is bringing in larger capacity 40-tonne trucks, with plans to buy and hire about 1,000 vehicles over a period of time. DHL Supply Chain inaugurated an operations simulation centre, Gurukul, in 2010, at Kiravali in Mumbai. The training centre is aimed at developing the skills of blue collar workers by imparting training on several aspects of warehouse operations.

A joint study by industry body Associated Chambers of Commerce and Industry (Assocham) and consultancy firm PwC released this August forecasts that the Indian e-commerce industry would grow to a staggering US\$ 20 billion by 2020. Sensing the immense opportunity, Deutsche Post DHL plans to build infrastructure and invest significantly in SMEs over the next two years. DHL-Blue Dart's e-fulfilment centres will be launched around the end of 2014. The first phase of e-commerce business will commence with the establishment of a facility in NCR (National Capital Region), followed by another in Bengaluru and then in Mumbai. The logistics company plans to set up 13-15 fulfilment facilities across several parts of the country which includes Tier II, III and IV cities too. ■

*(Based on interview and secondary research)*

**DECODING DHL'S WINGS**

The four segments of DHL provide logistics service across India and worldwide.

**Express**

DHL Express transports urgent documents and goods reliably and on time from door-to-door in more than 220 countries and territories, and operates the most comprehensive global express network.

**Global Forwarding, Freight**

In its daily business DHL Global Forwarding takes care of a variety of customers' logistics needs, from stan-

dardised logistics operations and multi-modal transport solutions to highly individualised industrial projects.

**Supply Chain**

DHL Supply Chain is the global market leader in contract logistics, providing warehousing, managed transport and value-added services and offers solutions for corporate information and communications management.

**Global Mail**

DHL Global Mail is DHL's

worldwide expert in providing customised solutions for mail and B2C parcels, maintaining one of the world's largest delivery networks across five continents.





PHOTO BY THINKSTOCKPHOTOS.IN

# “IRHT would focus on Africa, Japan and Latin America as potential markets of the future”

India Brand Equity Foundation (IBEF) has been at the forefront of positioning *Brand India Pharma* and has taken up the mantle to further enhance India's value proposition at international forums such as CPhI. **Aparna Dutt Sharma**, Chief Executive Officer, India Brand Equity Foundation, reveals more in a candid interview with **Shalini Gupta**.

**Q** Tell us something about the inception of *Brand India Pharma* and the journey so far.

In 2014, the *Brand India Pharma* campaign is in its second phase. It was formalised and initiated painstakingly over an year-long period and was launched in 2012 at CPhI Japan. We picked up a market like Japan, known to follow some very strict policy standards, because we wanted to project and highlight the fact that India stands up to its value proposition adhering to the highest quality standards. When we began the campaign, at the core we had positioned the tagline—*Pharmacy of the World*—which projects India's role as a generics producer being among the big league when it comes to generic formulation exporters in volume terms. India also has been ranked high when it comes to providing medicines and formulations to NGOs as per WHO requirements. We wanted the world to understand that India repre-

sents credible, affordable and sustainable solutions in health-care. It was extremely well received within the country.

Moving forward, we realised that it was time that we used the CPhI platform, which is perhaps the biggest pharmaceutical exhibition in the world, to leverage this opportunity to relay the message that India would like to communicate to the world at large. While larger companies make their presence felt by virtue of the scale and size that they represent, companies that come under Pharmexcil are SMEs which don't enjoy the same recognition as their bigger peers despite the fact that they have achievements to their credit. We felt that this messaging was getting lost and so IBEF made sure to position *Brand India Pharma* strongly by moving from corner positions to the high table by negotiating for a central position at the India pavillion. It was the first time that we were recognised as a value partner. We engaged thoroughly with editors from pharma trade journals across the world and organised interactions with representatives from Pharmexcil, senior officials from Department of Commerce which created a better understanding of the Indian pharma industry. With more than 2,000 stands at the fair, IBEF, got recognition when we did not undertake a PR exercise. At Frankfurt, it went one step further, as global media editors requested us for interactions with senior officials to try and understand the change which has transpired within the Indian industry, as to how they are tackling quality issues, what are the mechanisms they have put in place, etc. In short, we made our voice heard.



## A Strategic Public-Private Partnership

India – Responsible Healthcare Trust has been formed between the Government of India and major pharmaceutical industry organisations to power the *Brand India Pharma* campaign. A one of its kind public-private partnership, the formation of the Trust represents the commitment to both drive and safeguard the interests of the Indian pharma industry. The Trust chaired by the Commerce Secretary comprises a number of key stakeholders, namely, the Indian Pharmaceutical Alliance (IPA), Indian Drug Manufacturers' Association (IDMA), Bulk Drug Manufacturers Association (BDMA), Association of Biotechnology Led Enterprises (ABLE), Pharmaceutical Export Promotion Council of India (Pharmexcil) and India Brand Equity Foundation (IBEF). The Trust aims to combine both financial and non-financial resources towards a common agenda. It aims to create better awareness and develop an informed perspective about *Brand India Pharma* in both the domestic and global markets. The India – Responsible Healthcare Trust is expected to take the *Brand India Pharma* campaign to the next level. The primary objective of this Trust will be to position India as a *Responsible Healthcare Provider*.

**Q** IBEF must be representing other sectors as well when it comes to *Brand India*. How is pharma as a sector different in terms of branding? The campaign began in 2012, why did we start branding pharma so late?

We are engaged in sectoral campaigns for tea, coffee, spice and the engineering sector. Every sector has its own distinct characteristics. Brand recognition for India as a country has been in the IT sector since 2000. The thinking in the Department of Commerce has been that apart from IT, which has done well, sectors such as pharma have credentials and achievement to their credit which need to be communicated to the world. The campaign didn't start late, but private companies have been positioning themselves with the campaign concretely directed at helping the SME sector specifically to ensure that they are able to position themselves with strength. The idea has been that with India playing such an important role in the generics field and providing credible, affordable and sustainable solutions to the world, this distinct value proposition needs to be heard. This is what motivated the Department of Commerce and especially the Commerce Secretary to get the campaign together and say that, if IT was the solution for competitive edge and pricing, pharmaceuticals bring in a competitive edge with volumes, quality and more importantly a global solution for the world, not only for comparable economies but also for developed economies. Export figures elucidate this better with India's pharma industry accounting for 1.4 per cent of the global pie by value and 10 per cent by volume. We account for the fourth largest in market share in Asia Pacific with a CAGR of 21 per cent over the last few years. Hence, there was a strong case to take, consolidate these facts and communicate this to the world.

**Q** We have been a generics capital but the future belongs to biosimilars and other riskier territories which present the next big opportunity with a lot of companies venturing into these areas. On that front, how are you positioning *Brand India Pharma*?

When we started, at the core we had positioned India as the pharmacy of the world with the generic aspect. In stage two the positioning has been further amplified. The tagline now talks about India as a *Responsible Healthcare Provider*. It is extremely important for the world to understand that there is an emphasis on credible and quality solutions that India stands for. We are re-emphasising this point.

Recently, we also formed the special purpose vehicle (SPV), which is the India – Responsible Healthcare Trust (IRHT), the first PPP in the pharma sector. It is a unique initiative between the government and apex industry associations with the Commerce Secretary as its Chairman and important players such as IPA, IDMA, ABLE, IBEF, etc. who discuss and debate important issues impacting the industry. It is a core group which is represented by its Director General or

“*Brand India Pharma* campaign brings an opportunity...to present a perspective so that both the perspectives are presented to the world before an opinion is formed.”

—**Aparna Dutt Sharma**, Chief Executive Officer, India Brand Equity Foundation



Secretary General. The idea is to build and synergise trends on both sides and leverage it towards a common agenda which can then be internalised by these associations and then carried forward.

**Q** What are the goals and objectives that IRHT has set up for itself?

Our trust deed has been outlined and shall be formalised soon. Definitely there is agreement across the table on two points—better communication and creating an improvement in understanding and awareness levels of the Indian pharma industry along with a commitment by both sides to drive and safeguard the interests of the industry. Those are the twin objectives at the core of the trust. One is looking at the trust to take the initiative to the next level. This is a milestone achievement for us given the fact that when we started we were undertaking this project under the aegis of the Department of Commerce and Pharmexcil and industry started noticing the strategic branding that we started doing at CPhI and they started approaching and applauded IBEF for its efforts. They understood that the government was making serious efforts and that is the value proposition they wanted to combine their energies with.

**Q** The last one year has been challenging for the industry with its image dented with US FDA alerts, substandard drugs as well as regulatory hurdles etc. Your comments.

We live in a changing context. Part of the initiative is understanding the value proposition that Indian pharma represents. Most of the times we have found that these articles coming into the press have been unilateral with singular reporting. We haven't been responding to these

in a timely manner. *Brand India Pharma* campaign brings an opportunity to respond in a timely manner and present a perspective so that both the perspectives are presented to the world before an opinion is formed. We create a communication channel to understand real issues and respond to them accordingly. If countries and companies have a PR positioning, it is high time for us to be responding by leveraging similar mechanisms to position our perspective. Especially, when you come across pressure groups, it is open to logic, to say that we are welcome to debate. IBEF is essentially looking at developing a forum wherein stakeholders start recognising the challenges and the necessity to respond to them with immediacy.

**Q** What are tangible goals that IBEF has set for itself?

Today, we are working with different export promotion councils. Branding in any form as an communication exercise should create better understanding and awareness of the sector, what it represents, and create a more welcoming environment for our industry in different markets. A lot of markets thrive in perception, which lags reality. It is important for us to fill in that gap and engage with possible stakeholders in potential markets to make them understand the sector's value proposition and if they find value in the sector and taking it forward. We would continue to focus on existing markets such as the US and the UK. IRHT would focus on markets including Africa, Japan (in the medium term) and Latin America as potential markets of the future. We have zeroed in on these based on the existing performance of the companies in these markets and their potential. ■

(Reproduced with permission from *Express Pharma*, issue dated 16-31 October 2014)





Digital India is being hailed as a unique and unparalleled initiative the world over. With citizens at the centre of governance, the emphasis on industry participation and shift to more governance than government, the programme has opened up a sea of opportunities. All are eager to help achieve Vision India 3.0...

By Sangita Thakur Varma

Illustration by Manjith PB

Digital India Programme is set to bring about a paradigmatic shift in the way India functions. The powerful vision of India as a digitally empowered knowledge society has drummed up global enthusiasm and interest in the country. Woven into the overarching theme of the programme are the on ground details that will ensure that Digital India delivers. **Dr Ajay Kumar**, Joint Secretary to the Government of India, DeitY, expands on the Vision...

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# Opportunity

# Digitally Charged

As Vision Digital India unfolds, excited stakeholders mull its implications, opportunities and goals.

## W

hen the Digital India Programme (DIP) was unveiled in August this year, the sheer vastness of its vision set the world talking.

Vision Digital India is sweeping in its breadth, inclusive in depth and visionary in its height. The Department of Electronics and IT (DeitY), Ministry of Communications and IT, Government of India, as the architect of DIP, has a central role to play in the overall structuring and implementation of the programme. It is, in fact, the Department's mandate to leverage technology in the transformation of society and to improve the quality of life. "This is what we have been doing since the Department was set up," says Dr Ajay Kumar, Joint Secretary to the Government of India, Department of Electronics and Information Technology (Read his interview on page 24). The official document released by the Department calls DIP transformative in nature. A flagship programme of

Prime Minister Narendra Modi, DIP's mandate is to lead India into becoming a digitally empowered society and knowledge economy.

### Laying the Foundation of Opportunity India

The programme on which the government will be spending an estimated ₹1.13 lakh crore will impact every area of life in the country, beginning with employment generation for about 1.7 crore youth. The trickle-down effect of this mass scale employment opportunity will be felt by around 8.5 million people. It is being estimated that the thrust on electronics manufacturing with a vision to end imports by 2020 will lead to the birth of a number of related industries and opportunities in the sector which will further multiply the job opportunities in the country.

An umbrella initiative, DIP seeks to bring the multiple existing programmes of the government onto a single platform and through one binding theme refo-



cus them towards the common goal. Under the common branding of Digital India, various schemes are being restructured and regrouped under nine growth pillars identified as thrust areas. The aim is to achieve three major objectives as laid down in the document:

- Provide infrastructure as utility to every citizen
- Ensure governance and services on demand to citizens and through this lead to
- Digital empowerment of citizens

Osama Manzar, Founder-Director, Digital Empowerment Foundation (DEF) and Member, Working Group for Internet Proliferation and Governance, Ministry of Communication and Information Technology, calls it a “good programme” for two important reasons. Firstly, as he says, “The government has packaged it in such a way that anybody can identify it as a digitally inclusive programme for the whole country.” The second is that with Prime Minister Modi’s repeated emphasis on DIP, like his other flagship programmes, this too is building a lot of momentum and profile, especially among business and industry, who are now keen to be associated with it. Manzar is careful in his selection of the right descriptive terms for DIP and calls it “a newly re-packaged programme”.

### Unique Platform, Vast Implications

Keeping the principle of “maximum governance and minimum government”, articulated by PM Modi earlier, as the central principle of DIP, the programme raises the bar in governance, taking it to a platform where it becomes collaborative governance. The vast scale of DIP necessitates such a participatory form of governance. “The best part is that DIP is multi stakeholder and everyone has to participate,” observes Manzar and sees the industry and civil society playing a big part. Digital India Vision is truly about empowering citizens by involving them in the governance process.

Of the nine pillars of Digital India, three thus are of primary importance—infrastructure, services and empowerment. These will lay the foundation to connect every Indian citizen, educate them digitally and empower them to reach out to avail the various benefits. “This is where the role of the corporate fraternity will be effective,” says M N Vidyashankar, former Principal Secretary to the Government of Karnataka, Department of e-Governance and current President, India Electronics & Semiconductor Association (IESA). According to him, “The attempt of a holistic digital inclusiveness programme must be to increase the user population who enjoy access to internet-enabled or mobile-enabled public services, as opposed to simply making available more services.” And, the corporate sector will play a defining role in achieving this vision, he adds.

Throwing light on the mega opportunities for the industry under Digital India, Dr Kumar says, “Industry will be able to participate in a big way with investments, technical expertise, goods and services, etc. DIP requires huge investments and personnel and each programme area will have a role for stakeholders.” Kumar points to the three fundamental things essential to ensure that the Digital India opportunity translates into gains for each citizen—a unique lifelong identity, a mobile phone and a bank account—which again offer opportunities for the industry.

The industry is already responding enthusiastically, as Vidyashankar observes a “new investment confidence”

## Estimated Costs and Impacts

### Overall Cost of Digital India

- ₹100,000 crore in ongoing schemes (only DeitY, Department of Telecom & not those in other line ministries)
- ₹13,000 crore for new schemes and activities

### Impact of Digital India by 2019

- Broadband in 2.5 lakh villages, universal phone connectivity
- Net zero imports by 2020
- 400,000 public internet access points

- Wifi in 2.5 lakh schools, all universities, public wifi hotspots
- Digital Inclusion: 1.7 crore trained for IT, telecom and electronics jobs
- Job Creation: Direct 1.7 crore and indirect at least 8.5 crore
- e-Governance & e-Services: Across government
- India to be leader in IT use in services—health, education, banking
- Digitally empowered citizens

Source: DeitY

in the country. He credits it to “the right vibes being created by the government”. Calling it the reason for many technology companies, small and big, showing interest in this revolution, he affirms, “IESA is confident and positive about the impact of the programme.” The nine pillars of growth identified under DIP offer a minefield of opportunities for business to business and business to consumer deliveries, for instance, in the electronics system design and manufacturing (ESDM) space. According to Vidyashankar, “The total market for electronics goods by 2020 is likely to be approximately

US\$ 400 billion, covering the entire range of inputs in the electronics space.” Relating the DIP opportunities to another recently launched flagship programme, *Make in India*, he says, “The opportunity for employment under *Make in India* in the sector is close to 28 million and the contribution it can make to the total GDP is close to 12 per cent.”

Under the thrust area of electronics manufacturing, the ESDM sector has vast opportunities. Vidyashankar elaborates, “The sector is all pervasive. With smart cities and Internet of Things occupying centre stage, electronics will play a very important role in each of the nine pillars.” In today’s networked world, there are no independent verticals functioning in silos. Each pillar is

dependent on each of the other pillars for providing the most optimum solution. Electronics will be the common denominator in each of the pillars, the reason why the government has set an ambitious goal for it.

The programme is expected to attract an investment to the tune of ₹100,000 crore. Global companies are already coming up with various plans to assist the government in its endeavour and to tap the emerging opportunities. While Microsoft has been working with several state governments to facilitate their e-governance agenda, it recently announced its innovative Whitespace technology for internet connectivity which it would be providing free to support Digital India. Cisco that has been working on the Smart City



# 9 Pillars of Growth Areas under Digital India Programme

**1 Broadband Highways**

- Rural: 250,000 gram panchayats to be covered by December 2016
- Urban: Virtual network operators for service delivery; communication infrastructure in new urban development and buildings
- Nationwide national information Infrastructure by March 2017

**2 Universal Access to Mobile Connectivity**

- Remaining uncovered villages (~ 42,300) to be covered by FY 2014-18

**3 Public Internet Access Programme**

- CSCs to be made viable, multi-functional end-points for service delivery
- Post offices to become multi-

service centres

**4 e-Governance**

Reforming Government through technology

- Government Business Process Re-engineering to be done to improve transactions
- Electronic databases
- Workflow automation inside government
- Public grievance redressal— Largely process improvements

**5 e-Kranti - Electronic Delivery of Services**

- e-Education
- e-Healthcare
- Technology for Planning
- Technology for Farmers
- Technology for Security
- Technology for Financial Inclusion
- Technology for Justice
- Technology for Security

\*Ongoing programme National e-Governance Plan (NeGP) will be revamped to cover these

**6 Information for All**

- Online hosting of information & documents
- Government to proactively engage through social media
- Online messaging to citizens

**7 Electronics Manufacturing**

- Target net zero imports by 2020
- Taxation
- Incentives
- Economies of scale
- Incubators
- Clusters
- Skill development
- Government procurement

**8 IT for Jobs**

- Train people in smaller towns & villages for IT sector jobs
- IT/ITeS in NE
- Train service
- Delivery agents to run viable businesses delivering IT services
- Telecom service providers to train rural workforce to cater to their own needs

**9 Early Harvest Programmes**

- e-Government greetings
- Biometric attendance
- Wifi in all universities
- Secure e-mail within government
- Standardised government e-mail design
- Public wifi hotspots
- e-Books in school
- SMS alerts
- Portal for lost and found children



project globally, in September this year released the *Cisco Smart City*, a blueprint for the future of smart and connected communities in India, to underline its commitment to Vision Digital India. IBM is also laying the foundation for digitisation of India through various initiatives. Talking on IBM's role vis-a-vis DIP, Dr Prashant Pradhan, Director, Smarter Planet Solutions, IBM South Asia/India, observes, "It is very important for the programme to be strongly focussed on 'citizen outcomes' and not just building blocks of technology. This journey from technology to outcomes needs a holistic approach, planning and careful execution." Giving the example of rural citizens, he explains that while mobile and telecommunications technologies provide "access" and "reach" to the world, true prosperity can result only when rural people can use these channels to sell more products profitably and improve their productivity. Creating such capabilities and services on top of technology thus becomes the key. Further, a sustainable financial inclusion framework is needed that provides access to credit and enables growth in areas such as education, micro enterprise, etc. IBM has adopted this holistic approach and is providing the core technology platform and business/operational process framework to a key microfinance institution where mobile technology and analytics act as enablers.

Pradhan is confident of the opportunities coming off what he calls "a visionary step taken by the Indian government". Elaborating on this he adds, "The initiative is a game changer, which promises to unleash the potential of a billion citizens in support of the country's growth." On the role of corporate India in the programme, Pradhan adds, "It has a key role in defining and executing Digital India, which is apparent from the nine pillars. All of them call for higher degree of participation from private players." As regards IBM's role, he says, "There are a host of areas where we can partner with the government and bring to the table our expertise and global experience. These include highly scalable and secure e-Governance services delivered on cloud, use of mobile technologies for citizen engagement and ubiquitous access to services, financial inclusion, education and healthcare. We also see strong alignment with the Smart City programme where we believe IBM will be a key stakeholder in creating 100 smart cities in the country."

### Grassroots Revolution

The civil society will play a large role in translating the Digital India Vision into impactful results at the grassroots. Non Government Organisations (NGOs) are the last link in the chain to citizen empowerment at the rural level providing the last mile connectivity to the gov-



**"Make all the 3 million panchayat members, 7 million government school teachers and 2 million health workers...digitally literate..."**

**Osama Manzar**  
Founder-Director,  
Digital Empowerment  
Foundation



**"PPP is the key to the success of the Digital India Programme. It ensures that the government gets access to the world's best ideas and technology...while the private sector can attain the scale..."**

**M N Vidyashankar**  
President, IESA

ernment or the private sector in any social development engagement. "There are three advantages of involving the civil society working at the base. First, that you will be able to distinguish those NGOs who are genuine and effective. Second, we will be using their infrastructure locally and the government will not need to expand existing infrastructure beyond a scale. Third, we have access to human resources and intelligent minds," says Manzar. However, to enable NGOs to carry forward the DIP mandate, the Government requires a comprehensive capacity building programme for the civil society. Manzar feels we must focus on first making NGOs digitally literate and then fixing the citizen literacy target for each of them. "Then they will take it forward," he concludes.

Noting the government emphasis on private participation, Vidyashankar observes, "Public-private partnership (PPP) is the key to the success of the *Digital India Programme*. With PPPs, we can have the opportunity to forge blueprints, policies and industry's best practices. PPPs ensure that the government gets access to the world's best ideas and technology, while the private sector can attain the scale which only the government can provide."

The industry needs to improvise on its delivery for



# Vision Areas

## 1 Infrastructure as a Utility to Every Citizen

- High speed internet as a core utility
- Cradle to grave digital identity—unique, lifelong, online, authenticable
- Mobile phone & bank account enabling participation in digital & financial space
- Easy access to a Common Service Centre
- Shareable private space on a public cloud
- Safe and secure cyber space

## 2 Governance & Services On Demand

- Seamlessly integrated across departments or jurisdictions
- Services available in real time from online & mobile platform
- All citizen entitlements to be available on the cloud
- Services digitally transformed for improving Ease of Doing Business
- Making financial transactions electronic & cashless
- Leveraging GIS for decision support systems & development

## 3 Digital Empowerment of Citizens

- Universal Digital Literacy
- Universally accessible digital resources
- All documents/certificates to be available on the cloud
- Availability of digital resources/services in Indian languages
- Collaborative digital platforms for participative governance
- Portability of all entitlements through cloud

Digital India. While the government has identified broadband and mobile networks as the backbone of the project, Vidyasankar says that the industry needs to “improve the processes, remove capacity constraints and adopt efficient operational models by leveraging emerging technologies such as cloud, social media, analytics and mobility.” He reasons that with 75 per cent of new internet users and 50 per cent of netizens active on mobile phones, it is imperative for the ICT industry to innovate applications and solutions specific to the new generation of mobile users for viewing on small screens. To complement the government’s programme of digital inclusion, the industry will have to innovate and come up with most advanced solutions that integrate software with hardware and enhance electronics manufacturing, hence creating more job opportunities.

### Backbone of Broadband

Four of the nine pillars can be clubbed under the group internet and access, says Manzar. This then points to the imperative for making universal web access a human right. Only if citizens have the right to broadband can they access the benefits of other services under DIP. Prof Sowmyanarayanan Sadagopan, Director, IIIT-Bangalore and Chairman, Core Committee on e-Governance, Government of Karnataka, too feels that universal broadband access can simplify the process of digitisation and calls it the most important thrust area for growth. He adds, “Provision of a reasonable speed of 2–5 Mbps at all times and at less than ₹200 (US\$ 3.2) per month is as critical as is universal access to mobile phones.” He is confident that mobile access, if reliable and affordable, can overcome the need for internet access for all. “We just require internet connected devices like PC/tablet/smartphone and affordable and high speed bandwidth—sub-₹5,000 (US\$ 80.87) device@₹200 per month including broadband plus phone.”

Broadband as a Fundamental Right would effectively democratise and decentralise information and accessibility down to the grassroots and the bottom of the pyramid (BoP) levels. The National Telecom Policy 2012, envisages broadband connections to 175 million people by 2017 and 600 million people by 2020 at minimum 2 Mbps download speed. It has also targeted higher speed of at least 100 Mbps on demand. Broadband penetration is an achievable target, provided different platforms like cable TV, optical fibre, wireless connection through spectrum, VSAT and satellite are allowed to converge. Currently, each of these is under the jurisdiction of a different department. In sync with the government’s larger vision, the Department of Telecom (DoT), in June this year, had announced plans to make Right to Broadband a basic right as part of its National Broadband Policy. The National Optical Fibre Network (NOFN), on which the success of DIP will depend to a large extent, has been conceived as a programme to provide last mile connectivity by uplinking over two lakh gram panchayats (a cluster of villages under each) to fast internet

Source: DeitY



connections. According to a McKinsey & Co report, the estimated cost of the digital infrastructure project will be around US\$ 5.9 billion. Looking at the huge effort involved, Communications and Information Technology Minister Ravi Shankar Prasad had, in a media interaction, commented that this means a huge business opportunity for the industry. Manzar is confident that with broadband connectivity, many of the problems will be solved by the citizens on their

access to citizens will provide services on demand in real time digitally. “However, universal digital literacy is critical for digital empowerment since other vision areas such as delivery of government services are directly dependent on the ability of citizens to avail such services electronically,” states Dr Charru Malhotra, Associate Professor (e-Governance and ICT), IIPA. “Institutional digital literacy” is being mooted by experts as the ideal approach in the short run. “Make



“We just require internet connected devices like PC/tablet/smartphone and affordable and high speed bandwidth, sub-₹5,000 device@₹200 per month...”

**Sowmyanarayanan Sadagopan**  
Director, IIIT-Bangalore

“Universal digital literacy is critical for digital empowerment since other vision areas...are directly dependent on the ability of citizens to avail...services...”

**Charru Malhotra**  
Associate Professor (e-Governance and ICT), IIPA



own. “What needs to be figured out is how to do the minimum and get the maximum.”

### Revving up Governance

Satyanarayana Sangita, Professor and Head, Centre for Political Institutions, Governance and Development, Institute for Social and Economic Change, Bangalore, calls DIP “broad based combining two aspects of e-governance—e-administration and e-democracy.” The aim of the first is to streamline administrative procedures and enhance public service delivery and the latter, using e-democracy, seeks to empower citizens more powerfully through the internet. The benefits of such a model are immense as they make the platform simple, accountable, responsive and transparent.

Under the second vision area, DIP aims for a transformative agenda of governance where single window

all the 3 million elected panchayat members, 7 million government school teachers and 2 million health workers and municipality staff digitally literate first,” says Manzar. Malhotra too feels that for the initial success of DIP e-initiatives it is crucial to identify literate citizens at the local level and equip them with digital skills. “In the short term, these trained individuals must be leveraged to ensure delivery of government services and exploit the benefits of the digital paradigm. In the medium to long term, they must then facilitate an increase in literacy through the use of ICTs.”

Vision Digital India has become the springboard for innovations, initiatives, opportunities and animated conversations on India 3.0 (evolving into Web 3.0 from Web 2.0). There is palpable excitement in the air as various stakeholders discuss the way forward to this dream India. A vision unfolds. ■





# Mission Digital

**Dr Ajay Kumar**, Joint Secretary to the Government of India, Ministry of Communications & IT, Department of Electronics & IT, in a chat with **Sangita Thakur Varma** elaborates on the implications of the ambitious *Digital India Programme* and the opportunities for the industry under it.



**Q** Department of Electronics & Information Technology is the architect of Vision Digital India. What led to its conceptualisation? Why did the Department feel the need for such a large and ambitious programme?

It is the Department's mandate to use technology in the transformation of society and to improve the quality of life. This is what we have been doing since the Department was set up. What has changed is that the government has now given a much bigger and much more transformative mandate to us. It wanted a programme which could touch every person of the 1.25 billion people in the country and enable them to use technology to improve the quality of their life and participate in governance. This mandate has taken the programme to the next level. Earlier, we were largely focussed on developing e-governance for services. *Digital India Programme* is far more comprehensive. It is about citizens, government,

IT businesses, e-commerce, people and about using technology to empower people and give them a digital identity and Digital Locker. The programme is also about people and technology, government and citizens and technology and government. These various aspects complete the whole picture of what Digital India would be like.

**Q** The project envisages major PPP initiatives. What opportunities will be thrown up for B2B and B2C domains under the various growth pillars including IT infrastructure network project and electronics manufacturing?

The USP of *Digital India Programme* is that it involves citizens, businesses, government, technology players and academic players—it's about everyone. There are nine pillars of *Digital India Programme*, but three of them are more important. One is infrastructure,

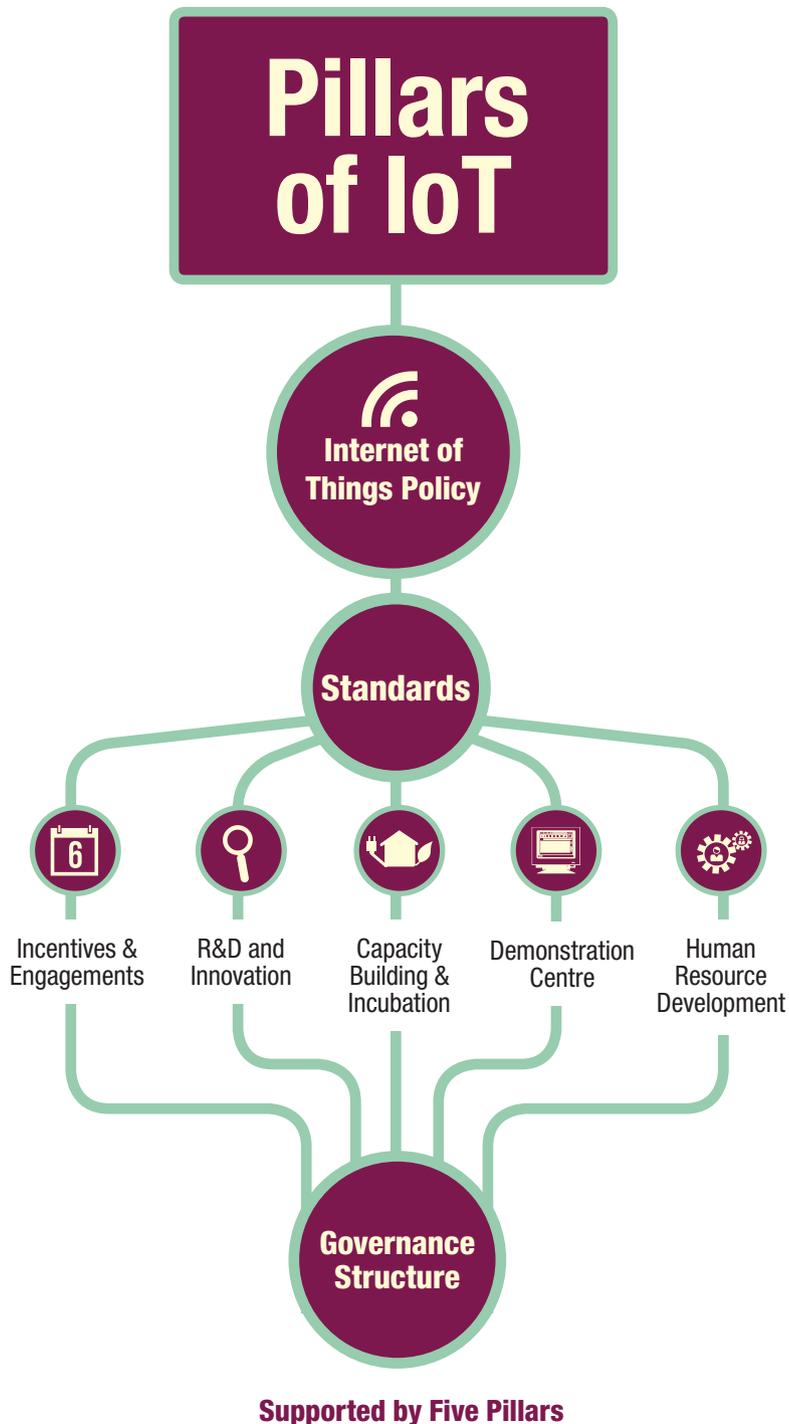




another is services and the third is empowerment. Thus, we have digital infrastructure, digital services and digital empowerment. Under digital infrastructure, there are large numbers of areas where industry can participate in a big way, like investment and technical expertise because there are a lot of areas which require these. It requires goods and services, for example, National Optical Fibre Network (NOFN) plan requires huge investment and people to implement the project in a time-bound manner. The whole idea is how you connect people in a big way. Each of these features will have a role for stakeholders. Digital India talks of post offices as access centres at field level. Here again, there is a role for respective stakeholders. Most importantly, we require high bandwidth connectivity for everyone to enable common service centres. Only after this has been done can we look at other big things.

There are three fundamental requirements as part of Digital India for every citizen—a unique lifelong identity, a mobile phone and a bank account. This is an opportunity for business, people in the supply chain (who are supplying various services), mobile phone industry and app and content developers. All those providing services in mobile will be involved because you need to link people with language services. Third is financial inclusion. The whole financial sector gets involved too. Another very important part of the programme is financial transactions. This is a huge opportunity for the industry because, going forward, we will increasingly adopt cashless transactions. This touches everyone—financial institutions, bankers, other players and people at large and changes the way we function today. Digitisation of records becomes important to be able to provide such a vast array of services and Digital Locker also envisages





The framework of the IoT Policy is proposed to be implemented via a multi-pillar approach. The approach comprises five vertical pillars (Demonstration Centres, Capacity Building & Incubation, R&D and Innovation, Incentives and Engagements, Human Resource Development) and two horizontal supports—Standards & Governance Structure.

Source: DeitY

digitised records. Digitisation offers huge opportunity for the industry and for other players to participate in that activity. These will be some of the opportunities in terms of infrastructure. Investment in technology is a big prerequisite to enable such an infrastructure. Technologies like cloud and providing citizens private space in public cloud are again infrastructure requirements and these in turn throw up opportunities in security, academics, IoT, data analytics, etc.

All these are consequence of Digital India and may not be specifically listed out but they are a natural corollary of Digital India projects. The movement has already started and people and relevant stakeholders are participating in it. The Department (DeitY) recently released the country's first Internet of Things (IoT) policy document. The IoT draft policy will act as a framework for the government and people are participating and contributing to that. Digital Locker framework has been shared in the public domain and is under discussion. When the framework is prepared, it will be given out for implementation.

**Q How will the existing e-services be integrated under the Digital India Programme?**

All the existing programmes are an integral part of Digital India. It's only that they have to go to the next level. They have to become inter-operative, cloud enabled, mobile enabled and offer open API, etc. This is the kind of enablement that has to be done. Secondly, these applications don't reach everyone. So we have to reduce cost, eliminate intermediaries, etc. The focus now is to improve qualitatively the ongoing programmes.

In terms of services, the existing National e-Governance Plan (NeGP) is a wonderfully thought out initiative across sectors. However, we have compartmentalised ministries and silos of applications. We need to look at integration of these so that the applications can talk to each other and data can be transferred from one place to another. One of the very powerful thoughts in Digital India is that a document once issued by a public authority will not be sought by any other such authority from citizens. In the Digital Locker concept, all that a citizen will require to tell authorities is that this is my original certificate, go and get it. This is just an example of retrieving information from applications across domains. But integration of applications is a very important part of it. The second important aspect of services is business process engineering (BPE), which you can't implement in one go or easily because it requires changing habits. You are used to doing a particular work in a certain way and continue to do that in the same way and it's difficult to imagine that you can





“All the existing programmes are an integral part of Digital India. It’s only that they have to go to the next level...become inter-operative, cloud enabled, mobile enabled and offer open API, etc. This is the kind of enablement that has to be done.”

— Dr Ajay Kumar, Joint Secretary to the Government of India, DeitY

achieve better results by doing things differently.

We recently launched Jeevan Pramaan (digitised life certificate). Every pensioner is required to submit a life certificate annually in November to the concerned officer and the concerned bank, who then approve the next year’s pension. With digitisation, it becomes a simple task as you can give biometric note of presence remotely. This is what we have leveraged in Jeevan Pramaan portal. The Controller General Accounts of India has changed the rules to recognise Jeevan Pramaan authentication and now it is a valid digital life certificate. The Prime Minister launched it officially on November 10. But technology adoption will take a little time. We have *Aadhaar* based database which can verify a person with a biometric device. This is BPE for pensioners or biometric authentication. In BPE, there could be several ways of achieving the end and it is unique to achieve the end, not the process through which it is achieved. BPE has to become an integral part of new services.

To reach services to people you need to connect them digitally. Therefore, NOFN is an essential and integral part of *Digital India Programme*. The second pillar of the programme is largely about these two things—one that you have applications talking to each other seamlessly, so that for citizens it is not one way interaction, and the second involves doing business processes seamlessly and getting results rather than actually following the process. We want to use new technologies available to reach out to people. In that sense, it’s a qualitative improvement on the existing work through initiatives like services on demand, use of mobile, new language, etc. It’s envisaging a new level of delivery.

If we look at the third objective, which is not articulated clearly in the document, we will find that digital empowerment was being done earlier, but was not

part of e-Governance per se. In Digital India, it has come to mean making every person participate in digital society. Here, financial inclusion is a part of digital empowerment. Digital empowerment means a digitally empowered financial account and the ability of a person to be able to use technology in terms of computers, mobile phones or some other device.

National Digital Literacy Mission (NDLM) launched with the aim to make at least one person digitally literate in every household, is the initiative through which we can achieve this target. Largely funded by the government, the programme has also found huge support from industry and IT industry body Nasscom. NDLM is about training more youth. We have about 3 million people in IT, but we could actually take this to 20 million—driven by domestic demand for Digital India and from outside India. Digital empowerment means providing IT at the grassroots level to make the rural people IT enabled. It also means providing them training for IT based jobs and for high-end IT development. In a knowledge society, you have to be a knowledge producer also. Thus, there is a huge role for the industry in the human resources field. We are working closely with the IT sector, electronics and the telecom sector and the concerned skill councils.

MyGov, the first of its kind citizen engagement platform, has been the launchpad for several other programmes. Many ideas came and deliberated from MyGov. Today there are 6.5 lakh people on the portal, a small number still, but what is an important aspect of MyGov is that there is no casual contribution to the portal. About 99 per cent of users have spent some hours of work on their contribution. The portal is encouraging citizens to work for public good. It’s something which is very constructive and positive.

The database of 1.5 crore employees, mostly government, has been collected. The Prime Minister



launched this initiative on August 15, when he sent out greetings. Sending a crore greetings over an SMS gateway is not a difficult task. However, we didn't have that capability earlier but have developed it now. There are two important aspects to e-greetings—ethnological and cultural. The culture of not sending greetings is changing. Since we did not have an e-gateway platform, we are using MyGov platform for this service.

Our biometric attendance system—development of system to procurement of devices to implementation across 100 government offices—was all completed in five weeks. Over 60,000 employees today are using this in government offices. A decision has been taken to implement the system in all government departments. The best part is that we can put on board a biometric attendance system for any office in two hours. The device costs just ₹10,000—inexpensive and quick to start. It can be implemented across India and we are flooded with requests.

The draft framework for Digital Locker has been put up on MyGov portal. We have reached out for stakeholder consultation, inviting views to build the framework and then get into implementation mode. Another portal that is under progress is for missing children. More than 30,000–50,000 children

go missing, are trafficked or lost and most of them remain untraced. We are coming out with a technology enabled social media powered strategy to counter this issue and may go public in the next two months.

#### **Q** Will there be a difference in common ICT infrastructure?

That's important as the whole idea is to reach the last person. Unless you do that you can't envisage knowledge transformation of society. For this we have to implement NOFN, CSC, promote mobile enablement, language enablement, cloud enablement, portability of entitlements, etc., all of which are necessary for reaching the last mile.

#### **Q** There are central schemes and there are state schemes. Do they need to be aligned?

Not necessarily. That's one of the benefits technology helps achieve. You can serve the whole world through a central server. Thus, even if a state pensioner in Uttar Pradesh is living in Kerala, with cloud, he can access pension benefits of UP government. Now distance has no meaning. In biometric attendance, we have multi-tenancy applications. All of them are different tenants who are riding the application. These are in industry-wide use and we need to bring them into the government.

#### **Q** What about Aadhaar?

Look at the value it is giving to various things at no cost, whether it is de-duplication of application or some other service, all because everything is identity based. *Aadhaar* is unique, life-long, not repeatable, and authenticable. One programme which is IT enabled and we can proudly show to the world is *Aadhaar*. If you ask me two achievements which we can showcase to the world—one is *Aadhaar* and the second is mobile penetration at low cost—not the phones themselves but the business process which enables you to provide mobiles at a very cheap price.

#### **Q** What role should citizens play in their own empowerment?

In the end, there is hard work that needs to go into Digital India. There is a lot of excitement right now and we are receiving many responses. But still the journey is very hard. Making 70–80 per cent people IT literate is no mean task. Creating the value for Digital India, desire for it and willingness to participate in the journey is required. There is much tempo built up right now, but the distance to Digital India goal has not yet been reduced. We can travel faster, but still the distance has to be covered. ■



## Objectives of IoT Policy



- To create an IoT industry in India worth US\$ 15 billion by 2020. This will also lead to increase in the connected devices from around 200 million to over 27 billion by 2020. As per Gartner Report, the total revenue generated from IoT industry would be US\$ 300 billion and IoT will grow to 26 billion units installed by 2020 globally. It has been assumed that India would have a share of 5–6 per cent of global IoT industry.
- To undertake capacity development (human & technology) for IoT specific skill-sets for domestic and international markets.
- To undertake research & development for all the assisting technologies.
- To develop IoT products specific to Indian needs in the domains of agriculture, health, water quality, natural disasters, transportation, security, automobile, supply chain management, smart cities, automated metering and monitoring of utilities, waste management, oil & gas, etc.

Source: DeitY



# LEADING THE VIRTUAL ZONE

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# Dependable Diagnosis

An astute mix of technology backed infrastructure, ethical practices, innovation and a sound business plan is SRL Diagnostics prescription for market leadership.

BY SANGITA THAKUR VARMA



**S**RL Diagnostics is a research and innovation driven company. This year itself, it has come up with some landmark findings that include a report on the prevalence of Vitamin D deficiency, introduction of Butterfly Needles that help overcome the psychological fears of syringes; new ST2 test which makes the detection of high risk heart failure chances easier by measuring a specific biomarker in the bloodstream and an innovative technique to diagnose breast cancer in the early stages itself. This year, the leading diagnostics company also announced a major investment of ₹450 crore (US\$ 72.78 million) under an expansion plan to open 45 new laboratories across India in 2014-15 and overseas expansion into Africa and CIS (Commonwealth of Independent States) countries. Early this year, SRL Ltd had announced its plans to branch out in Nigeria, Congo, Kenya and Uganda.

The company that began operations in 1996, pioneering the concept of single clinical reference laboratories, in Mumbai, currently runs 280 laboratories across India, Nepal, Sri Lanka and Dubai and has a staff of 6,500 including 700 doctors and scientists. Under its new plan, the largest laboratory is being opened in Gurgaon and will cost an estimated ₹350 crore (US\$ 57 million). In 2014, it also notched up another milestone by inking the first ever public private partnership of its kind in the field with the Himachal Pradesh government and was entrusted to set up 24 laboratories in government hospitals. The labs operate 24x7 in all the 24 districts of the state and using ingenuity, the company has managed to simplify the logistics in the hilly state. Its staff uses any mode of handy transportation, from two wheelers to bicycles, to ensure that the collected sample reaches its destination within six hours.

Speaking about the incentive behind the setting up of this future forward diagnostics laboratory, Dr Sanjeev K Chaudhry, Managing Director, SRL

Diagnostic, says, “The founders of SRL were farsighted and leaders in the pharmaceutical industry.” He is referring to the Singh brothers, Malvinder and Shivinder. At that point in time, the diagnostics industry in India was underdeveloped and performed only routine investigations. Any patient or prescriber needing advanced investigations had to fly samples to UK, US or other countries and that made advanced or specialised investigations out of the reach for most people. “SRL was created as India’s first superspeciality diagnostics company with the ability to offer high end esoteric tests,” he says emphasising the company’s unique premise. Needless to say, the creation of SRL filled a significant void in India’s healthcare delivery space.

Subsequently, there was a change in the ownership structure when Fortis Healthcare (controlled by the Singhs) took 74.59 per cent share in 2011 and other investor partners moved in. They included Avigo Capital Partners, Sabre Partners, Logos Holding, Prime Trust and Religare Group companies. Later in 2010, in a strategic move,

SRL acquired Piramal Diagnostic Services Private Limited for ₹600 crore (US\$ 97 million), now known as SRL Diagnostics Private Limited, to become the largest diagnostics company in India in 2010. Earlier in 2003, it had also begun its international forays and in 2009 entered Middle East and Nepal setting up a reference lab system in collaboration with Life Care Services Private Limited of Nepal.

SRL has grown to become India’s largest provider of pathology and radiology services with a 40 per cent market share in the organised diagnostic sector in the country. It is also Asia’s second-largest and the world’s ninth-largest diagnostics company offering radiological, pathological and imaging services. The reach of the company has grown so wide since that single lab in 1996, that today it is spread across India penetrating tiered cities and including more than 350 districts.

What makes SRL such a winning proposition in Dr Chaudhry’s words is the fact that “it offers accurate, prompt and affordable solutions for India’s diagnostics needs. SRL runs India’s largest accredited network of labs. The concept of reference lab was indeed pioneered by SRL.” He explains the concept of a reference lab as an institution that receives samples and specimens from all over the country for analysis and opinion. This requires creation of a world class logistics network for the samples to be transported under the right conditions of temperature and storage for analysis. SRL now has seven reference labs in the country and five centres



of excellence that also play a referral role. Over 18 years of its existence, the diagnostics firm has become one of the largest service providers in the field in the world and receives samples from many countries. Over 100,000 tests are conducted every day at its labs.

Dr Chaudhry believes the reason for SRL's success is its "solid commitment to quality, efficiency and ethics". Explaining the principles governing SRL business, he adds, "Every business process is governed by the core values that include quality, efficiency, ethics, integrity and patient centricity. By holding firmly to these core values, we have redefined the boundaries of the diagnostics industry in India." Perhaps it is this steadfastness to values in an industry notorious for cutting corners and misdiagnosis that has kept the quality standards of SRL from wilting under pressure. Dr Chaudhry elaborates on this, "Every industry and business has its underbelly. In the medical world also there are situations where doctors and patients seek gratification from service providers. For SRL this is an absolute no."

It is to overcome these shortcomings perhaps that SRL has a very robust in-house training system of its own. The training is for employees at all levels and is mandatory before they are allowed to get involved with actual testing of samples. "There is a paucity of trained medical manpower in the country and SRL also feels the pinch from time to time," admits Dr Chaudhry candidly. In an effort to boost R&D in diagnostics studies, SRL also conducts MSc and PhD courses in biotechnology in association with Mumbai University. Given its fast expanding footprints, the diagnostics company seems to be fulfilling its personnel requirements quite well. With labs across the country, Dr Chaudhry says, "SRL is able to accept samples in most parts of the country. The samples are tested in the nearest available lab and advanced tests are performed at reference labs. All reference labs are

# SRL's Success Diagnosis

Astute planning and foresight to stay ahead in the race.

**S**RL Ltd has shown great business sense right from the beginning by creating a differentiated offering and expanding outside India.

## Keeping an Eye on Opportunity

SRL's international division became operational in 2003. The company had early on realised the gap in the diagnostic needs of the global medical fraternity and set out to fulfil it. In order to provide its growing international clientele the requisite expertise, the company established advanced professional, operational, logistics and IT capabilities that allow it to report swiftly and accurately on patient samples that are flown in from countries in South Asia, Middle East and Europe. Moving on from testing samples outsourced from different geographies, SRL is now aggressively establishing its direct presence internationally by setting up reference laboratories in various geographies starting with Dubai and Kathmandu in 2009. Reference laboratories are also on the anvil in Asian and African countries like Sri Lanka and Democratic Republic of Congo.

## Specialise & Be Ethical

- My advice to entrepreneurs would be to carefully evaluate the space they wish to work in. There is room for highly specialised small labs that support investigations in the growing areas of oncology and genetic diseases. There is also room for growth in Tier III and IV locations in India. There are no shortcuts to success. One must work hard.
- It is important for any healthcare player, more specifically in the diagnostics industry, to be ethical in all its practices. In this industry, we deal with the lives of people and everything that we do must keep the preciousness of human life at the centre. That's most important.

—Dr Sanjeev K Choudhry

located in close proximity of airports to minimise the time required for ground transportation."

Logistics forms an integral part of the laboratory's chain with site supplies and specimen transport playing a critical role in correct diagnosis. SRL's logistics department works out shortest logistics routes and transit time. The company accepts specimens round the clock at a central laboratory. The specimens typically arrive at the Mumbai central laboratory within 12 to 24 hours. The company has also put in place elaborate shipment monitoring and alternate route plans to ensure that samples reach their destination within the stipulated time. The specimen is transported at ambient, refrigerated and frozen (dry ice) temperatures to preserve quality.





“Every business process is governed by the core values that include quality, efficiency, ethics, integrity and patient centricity. By holding firmly to these, we have redefined...diagnostics industry...”

— Dr Sanjeev K Chaudhry

The goal is to eventually expand SRL's footprints into Western EU and the US. For some years now, the diagnostics company has been providing its services for specialised investigation requirements of a private hospital chain in the United Kingdom. Several countries including Bangladesh, Hong Kong, Malaysia, Maldives, Sri Lanka, Afghanistan, UAE, Kuwait, Bahrain, Oman, Qatar, Kenya, Tanzania, Ghana, Sudan, Ethiopia and Uzbekistan, outsource patient samples to SRL's Reference Laboratories in India.

#### Advanced Course to Beat Competition

The largest radiology service provider in India, SRL has 20 imaging centres and a team of more than 65 highly competent radiologists. The demand for tele-radiology services is growing rapidly across the globe and SRL provides this service on an international scale. The rising demand for these services

internationally is being boosted by major shortfall in the number of trained radiologists. SRL has built its strength in tele-radiology with highly qualified and trained staff who can produce relevant reporting in the shortest possible time. The company has a strong IT team to back its offerings worldwide. The acute shortage of trained morphologists (histopathologists, cytopathologists and hematopathologists) globally has also pushed the demand for tele-pathology. SRL provides limited service in tele-pathology to ensure timely and quality service.

The diagnostics major has also earned an enviable reputation for providing pathology services including diagnostic, prognostic and monitoring services to other lab service providers and hospitals. It is also a reliable source for clinical research. SRL's R&D centre conducts stage I-IV clinical trials for major Indian and international pharmaceuticals and biotechnology companies.

Technology is the backbone of diagnostic chains like SRL. No wonder the diagnostic company prides itself on the technology backup that supports its base. Apart from the fact that it has one of the most qualified teams of IT professionals, its data centre operations and information technology services are also ISO 27001:2005 certified by TUV Nord. SRL's completely automated labs use proprietary application CLIMS/CLIMS Online. In October this year, the company implemented a customer relationship management (CRM) application for its customer care department with the help of Wipro. This helps SRL transform its customer care operations by leveraging Oracle Service Cloud. Additionally, the company streamlined its call centre

operations with an incident tracking mechanism and a custom built toolbar for call management, integrated to its existing customer care infrastructure.

With upgraded technology and more investments to fund the company's soaring ambitions, Dr Chaudhry is confident about the future, "SRL will further strengthen its leadership position in India and continue to become a more significant player in the global industry. The expansion plans of SRL extend beyond the boundaries of India and include SAARC, West Asia, Africa and other parts of the world." SRL has so far invested approximately ₹1,000 crore (US\$ 162.87 million). This includes private equity funding from Jacob Ballas, Avilgo Partners, Sabre Partners and International Finance

Corporation, amounting to ₹520 crore (US\$ 84.69 million). The company is currently valued at around ₹3,500 crore (US\$ 570 million). The medical diagnostics market itself is projected to grow to ₹40,190 crore (US\$ 6.54 billion) by 2018, growing at a 15 per cent CAGR, from ₹20,000 crore (US\$ 3.26 billion) in 2013, according to a Netscribes report titled, *Medical Diagnostics – India, October 2014*.

For SRL Ltd that currently runs around 5,700 sample collection centres, including 50 abroad and carries out over three crore diagnostic tests every year and an ISO certified reputed R&D centre, there is ample headroom for growth. ■

(Based on interview & secondary research)



# SECTORAL UPDATE

## FEATURES **INSIDE**



**'Soft' Powerhouse:** India's software prowess is set to get another booster. **Pg 37**



**Bigger Growth Ahead:** Electronics gets a boost from *Digital India* focus. **Pg 39**



**Spice & Science:** Nutraceuticals is the growth *mantra* in this sector. **Pg 42**

## LOGISTICS

# Growing Economy Drives Logistics

The logistics industry in India is evolving to cater to emerging needs of various sectors.

BY CHARU BAHRI



The logistics industry is fast coming of age. Having grown conceptually in terms of services offered as well as in cargo volumes handled, today, the sector spans transporters, warehousing service providers, packagers, freight forwarders, express and premium delivery service providers and companies managing the entire supply chain of client firms.

Logistics services have expanded at 15 to 20 per cent in the last decade, albeit more moderately during the years of slower overall economic growth. Increasing consumerism in metros and in Tier-II and III cities is boosting the demand for logistics. Sectors like automobiles, electronics and electricals, food processing, pharmaceuticals, paints, textiles and retail are increasingly outsourcing their requirements to third party logistics players in order to focus on their core competencies and benefit from the ensuing cost savings.

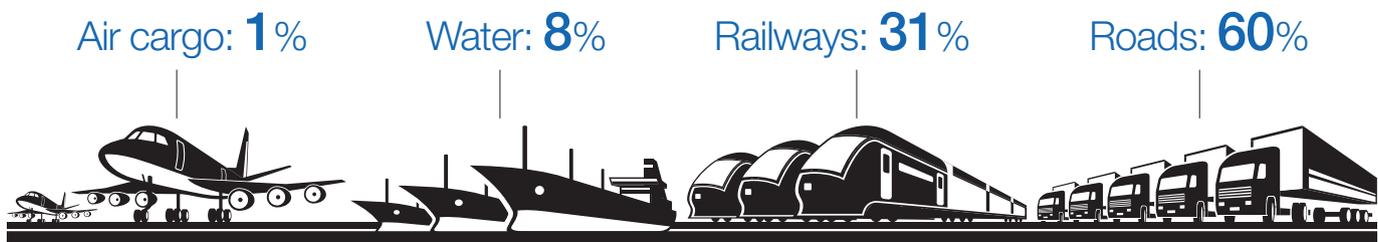
Today, the country's biggest logistics hubs lie in the top metros—National Capital Region, Mumbai, Kolkata, Bengaluru, Chennai and Hyderabad. Cities like Surat, Ahmedabad and Pune are witnessing a lot of action as well. Logistics business is also gathering momentum in Nagpur, Indore, Vishakapatnam, Coimbatore and Kochi. Increasing urbanisation and industrialisation will continue to drive the industry. With more than 60 per cent of India's urban population

### Road Transport

Road transport dominates the Indian logistics industry. It is expected to grow at a compound annual growth rate (CAGR) of 9.6 per cent through to 2017. It encompasses small transporters offering localised intra-town and inter-city services as well as big companies operating at a regional or national level.

India Ratings expects large fleet operators to exhibit a higher growth rate of 12-15 per cent this year, compared to the 8-10 per cent expansion estimated for those offering basic road freight services. Larger logistics companies maintaining a fleet of a couple of hundred trucks tend to use their own fleet for the more remunerative and value added offerings—such as time definite and express deliveries, door-to-door deliveries for small cargo, technology backed tracking facilities, as well as for dedicated services for large clients which could entail a premium charge. Own trucks are sometimes used for less than truckloads (LTL) where the rate per kilogram is higher than for full truck loads (FTL). Very often, express shipments are combined with LTL depending on truck availability to achieve higher capacity utilisation. For FTL consignments, especially for walk-in clients, the large fleet operators typically hire trucks from the unorganised segment at spot rates and earn a commission. Regular FTL services are usually the least profitable revenue segment for a large fleet operator, especially when the vehicle is hired.

## Logistics Share by Volume



expected to live in around 25 urban clusters by 2030, these locations will demand huge supplies of goods and services at reasonable prices. Expansion of existing industrial clusters and addition of new clusters will need dedicated freight corridors—like the Delhi-Mumbai Industrial Corridor—with high-speed connectivity to key ports and urban centres.

Going forward, Vineet Agarwal, Managing Director, Transport Corporation of India Limited (TCI) also expects growth to come from the implementation of business friendly policies by the new government at the Centre. For instance, introducing goods & services tax (GST) will boost supply chain consolidation by logistics firms as trade boundaries between states cease to exist—at least in theory. It will also catalyse technology investments for better monitoring of trucks, and this in turn will ensure fast deliveries and improved fleet utilisation.

### Rail Freight, Air Cargo & Port Traffic

Rail freight has grown at around 7 per cent over the past five years. Speed and economy are its biggest positives, especially over medium and long distances. Government focus on completing the proposed East and West Dedicated Freight Corridors is expected to give rail traffic a fillip. Since rail transportation of containers was deregulated in 2006, this segment has seen a healthy influx of private investment in wagons, containers and terminals. A few private container train operators are Adani Logistics, Gateway Rail, Hind Terminal Pvt Ltd, APL IndiaLinx, Inlogistics and India Infrastructure and Logistics.

Air cargo traffic increased at a CAGR of 11.5 per cent between 2006 and 2012 with domestic cargo performing slightly better than international cargo. However, international cargo currently accounts for two-thirds of the total cargo. Such cargo is largely routed through the metro airports of Mumbai, Delhi,

Chennai, Bengaluru and Hyderabad. Air cargo is expected to continue to display double-digit growth over both segments through to 2020. According to Prahlad Tanwar, Director, Transport and Logistics, KPMG in India, “A key trend is the emergence of new cargo centres in Tier-II hubs, such as Pune, Kozhikode, Kochi, Amritsar, Ahmedabad, Nagpur, Jaipur, Guwahati, Agartala and Imphal. Against a CAGR of 10.5 per cent at metro (Tier-I) hubs between 2006 and 2011, these Tier-II hubs witnessed growth of 14.5 per cent.”

Indian port traffic has been growing at a CAGR of 8.5 per cent since 2001 with some moderation in recent years. This positive trend is expected to continue in the long run. Of the key maritime states—Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Karnataka—during the last decade, Tamil Nadu witnessed the highest CAGR in cargo traffic of 32 per cent, while Karnataka’s CAGR was 28 per cent. Tanwar sees huge potential in the development of inland waterways, especially for bulk movement, and in increasing coastal cargo, especially for moving agricultural goods along the west coast. “Some prominent coastal shipping routes include Chennai to Chittagong/Yangon



“A key trend is the emergence of new cargo centres in Tier II hubs such as Pune, Kozhikode, Kochi, Amritsar... witnessed growth of 14.5 per cent (2006–11).”

—Prahlad Tanwar  
Director, Transport & Logistics  
KPMG in India



“Players that invest in logistics software and manpower training to build their capabilities.. will emerge as preferred logistics partners.”

—Vineet Agarwal  
Managing Director  
Transport Corporation of India

through Haldia/Kolkata, southbound cargo from Pipavav/Mundra to Kochi and other ports, and inland and coastal movement in and around Goa,” he says.

### Emerging Trends

Online retail is growing at an unprecedented CAGR of 34 per cent, as per consultancy firm Digital Commerce. Increasing competition between e-tailers is spurring the emergence of innovative sales models as well as the demand for specialised logistics services such as cash on delivery, time-bound delivery and two-way delivery for try and buy sales models, warehouse management, inventory management, etc.

According to Sudarshan Shreenivas, Associate Director, India Ratings, “Over half of the online sales depend on the cash on delivery mode of payment and new sales models are evolving. The proliferation of online retail has not only provided a large business opportunity for existing courier companies but also led to the emergence of a new breed of dedicated logistics firms. Startups in this category include Delhivery, Chottu.in and Ecom Express.”

“We see strong growth in the delivery of electronic items, home products, apparel and stationery products,” says Agarwal. TCI has already added triple deck vehicles and vehicles for local deliveries to serve e-commerce clients effectively. This year, TCI is investing in hub centres and warehouses which will double up as e-commerce fulfilment centres. Another emerging trend is the evolution of third party logistics companies (3PL) that offer logistical outsourcing services to fourth party logistics (4PL) players and the emergence of some pure 4PL players. According to Harbinder Singh Bedi, General Manager, Business Development, 3PL, Total Logistics India Pvt Ltd, a 3PL company focussing on in plant (stores) management and distribution, “It is a logical step forward. Most 3PL players in India started out as freight forwarders or as transport companies owning godowns. A few of these with the capability to invest are setting their sights on becoming 4PL players offering end-to-end supply chain solutions. It makes sense because clients are increasingly demanding a logistics partner with domain knowledge who can completely take over sourcing and distribution and add value to their core businesses.” Agarwal seconds this view adding, “Players that invest in logistics software and manpower training to build their capabilities, operate across channels and offer flexible delivery solutions will emerge as preferred logistics partners.”

Warehousing is closely allied with transportation. Automobile players, FMCG companies and retail majors are currently the prime occupiers of warehousing space. The country currently has the capacity of 30 million tonnes of cold storage. It requires another 62 million tonnes. The government’s thrust on manufacturing will also drive warehousing further. Knight Frank expects warehousing to grow at 9 per cent through to 2019 with investments in the segment yielding returns in the range of 12-20 per cent per annum. Across layers, the prospects for logistics in India are promising. ■



## SOFTWARE

# 'Soft' Powerhouse

India is renowned for its prowess in the information technology sector. Backed by *Digital India* and *Make in India* programmes, it is now slated to traverse a disruptive growth trajectory. **BY SANJAY K OJHA**

The Indian software industry has been scripting a robust growth saga for the past two decades. Considered a key driver of India's economic development, the sector has earned the recognition of a 'soft' power worldwide. India today is hailed as the outsourcing destination of choice in the world, with the support of the vast pool of its young, talented and cost-effective workforce.

With 600 delivery centres worldwide, the Indian IT industry is providing services in over 200 cities across 78 countries. India continues to maintain a leadership position in the global sourcing arena, accounting for almost 55 per cent of the global sourcing market size in 2013 as compared to 52 per cent in 2012. As a proportion of national GDP, the revenues of IT/ITeS have grown from 1.2 per cent in FY 1997-98 to nearly 8.1 per cent in FY 2013-14. At the domestic level, the growth of the sector is driven by manufacturing, telecom, insurance, banking, finance and, of late, the fledgling e-tail companies, turning fast to digital mode. According to PwC's revenue based survey on the world's top 100 software enterprises in 2013, India ranks fifth among the emerging markets based on revenues. As per the study, Indian companies in the top 100 emerging market list fetch consolidated revenue of US\$ 797 million. The findings clearly point out that emerging markets are ready to play a crucial role in the global software industry going forward.

PHOTO BY THINKSTOCKPHOTOS.IN



## Growth Factors

The Indian BPO sector in recent years has successfully diversified from primarily voice-based services to delivering specialised services, which include setting up of multi-delivery centres, vertical offerings and end-to-end solutions using cloud, big data and analytics. It is facilitating services in human resources, recruitment and legal processes besides banking and insurance. Due to its expanding profile, the BPO sector is increasingly being called the business process management (BPM) industry. According to NASSCOM—which has

been at the forefront of this rebranding exercise for the industry—in July this year, the IT-BPM industry in India garnered revenues of around US\$ 109 billion in 2012-13 whereas IT product revenue stood at US\$ 2.2 billion, which includes 30 per cent from the domestic market. Further, fast adopting the global delivery model, Indian IT companies are setting up development centres in Latin America, South East Asia and Eastern European countries, which have contributed to the growth of the Indian software industry. Besides, emerging technologies such as social media, mobility, analytics



and cloud (SMAC) are other driving factors of software growth in India.

The Indian IT industry has been primarily identified with excellence in software services in the initial phase and is now focussing on the software product segment, which is set to see a change in fortunes in the years to come. A survey conducted by NASSCOM in partnership with management consulting firm Zinnov said that the Indian software products sector is poised to enter a hyper-growth phase, with a likely minimum of 2,000 startups a year by 2020—as against a little over 800 per year estimated in February 2014, before Prime Minister Narendra Modi’s call for Digital India. The estimate of 800 startups a year was based on the IT sector’s performances in the past two years, which saw 480 software product startups in 2010, rising to about 680 in 2013. With the anticipated hyper-growth, the software product startup segment is estimated to generate 250,000–300,000 jobs by 2020, as against the current 65,000–75,000. The Indian Software Products Industry Roundtable (iSpirt), a think tank which works to transform India into a hub for new generation software products, estimated in February this year that India has the potential to build a US\$ 100 billion software products sector by 2025, as against around US\$ 2 billion presently. In a report, iSpirt predicted that the domestic market will grow three times the global rate at around 14 per cent annually. A majority of the demand for software products is likely to emerge from the small and medium enterprises (SMEs), healthcare and education sectors, the report revealed. The number of software product firms has grown over the last decade from about 100 in year 2000 to nearly 2,400 in year 2013. As per NASSCOM, the revenue from the software product segment currently stands at US\$ 2.2 billion and is expected to reach US\$ 10 billion by 2020.

While the Indian hardware market is expected to grow by around 30 per cent and overall sales are projected to touch



**“We see the Indian technology market presenting a US\$ 26 billion opportunity because of various government investments...for the creation of a Digital India.”**

—Pari Natarajan  
Co-Founder & CEO, Zinnov

US\$ 17 billion in FY 2015 (Source: Manufacturers’ Association of Information Technology), the IT services market in India is expected to grow at a rate of 8.4 per cent in 2014 to US\$ 7.88 billion (Source: International Data Corporation). The Indian IT infrastructure market is expected to grow by 4 per cent in 2014 to touch US\$ 1.9 billion, as per the IT research and advisory firm Gartner. The report said that the market for IT security infrastructure and services is predicted to grow from US\$ 989 million in 2014 to US\$ 1.4 billion by 2017. As per NASSCOM, the Indian IT/ITeS industry is expected to maintain a growth rate of 12-14 per cent in FY2014. NASSCOM has envisaged the Indian IT/ITeS industry to achieve a revenue target of US\$ 225 billion by 2020.

**Digital India Programme—  
Catalysis in Growth Momentum**

The Indian IT industry is set to witness spike in growth with Prime Minister

Narendra Modi calling for a digitally literate India. The *Digital India Programme* is aimed at connecting all gram panchayats by broadband and internet and will promote e-governance to transform India into a connected knowledge economy. With technology solutions at the core of the plan, there is a huge opportunity for IT players to use disruptive technologies and redefine paradigms for delivery of services like health, education and financial inclusion. In a bid to leverage the opportunity, IT players have decided to partner with the central and state governments to restructure and refocus several existing schemes and implement them in a synchronised fashion. On the sidelines of the NASSCOM Game Developer Conference, 2014 held on November 13–15 in Pune, R Chandrashekhkar, President, NASSCOM said, “NASSCOM is already working closely with IT players to lay the basic framework in patches which can be further merged with the greater Digital India plan.” With a target of bridging the digital divide and empowering the citizens of the country, several IT enterprises will be roped in for the programme, which will ultimately lead to the acceleration of the Indian IT industry’s growth.

“We see the Indian technology market presenting a US\$ 26 billion opportunity because of the various government investments outlined for the creation of a Digital India. This opportunity will be spread across communication technology, storage, software, IT services, engineering & machinery and Internet of Things. India hosts the third largest base of startups worldwide. India today has 3,100 plus startups and the startup ecosystem in India is likely to expand four fold by 2020,” elaborated Pari Natarajan, Co-founder & CEO, Zinnov.

The Government of India, for the past several years, has been playing a key role with respect to public funding of a large, well-trained pool of engineers and management personnel in strengthening the Indian IT industry. Besides, the central government and



the respective state governments are expected to collectively spend US\$ 6.4 billion on IT products and services in 2014, an increase of 4.3 per cent over 2013, as per the Gartner report.

“The government has spoken about making India an innovation hub. They want to focus on three pillars. One is skill enablement through creation of more IITs, revising curriculum to become more relevant to industry and setting up institutes of big data research. Besides, the government has spoken about setting up a Ministry of Entrepreneurship, establishing an Intellectual Property Rights Regime and providing tax incentives for investments in R&D, all of which ultimately are innovation

accelerators. In the last, they want to focus on strengthening innovation infrastructure by setting up autonomous technology transfer organisations and facilitating multi-country and inter-disciplinary research,” opined Natarajan.

Furthermore, the government has mandated to develop the Software Technology Parks of India (STPIs) and catalyse the Indian MSME growth story, in order to promote the software industry under the *Make in India* initiative. STPI (an autonomous society under Communication and Information Technology Ministry) and CeBIT India (the Indian subsidiary of the global JV company Hannover Milano Global, which is responsible for organising

international IT and ICT events) signed a memorandum of understanding in October this year to provide MSMEs with a platform and opportunity to showcase themselves and also interact with industry stalwarts as key players in the Indian IT and ICT ecosystem.

As Prime Minister Narendra Modi's call to the world's IT companies to invest in India with the promise of ease of doing business through a one-stop clearance platform for investment proposals, along with flagship programmes like *Make in India* and *Digital India*, open up a minefield of opportunities, the Indian IT industry is on the cusp of another explosive phase of growth. ■

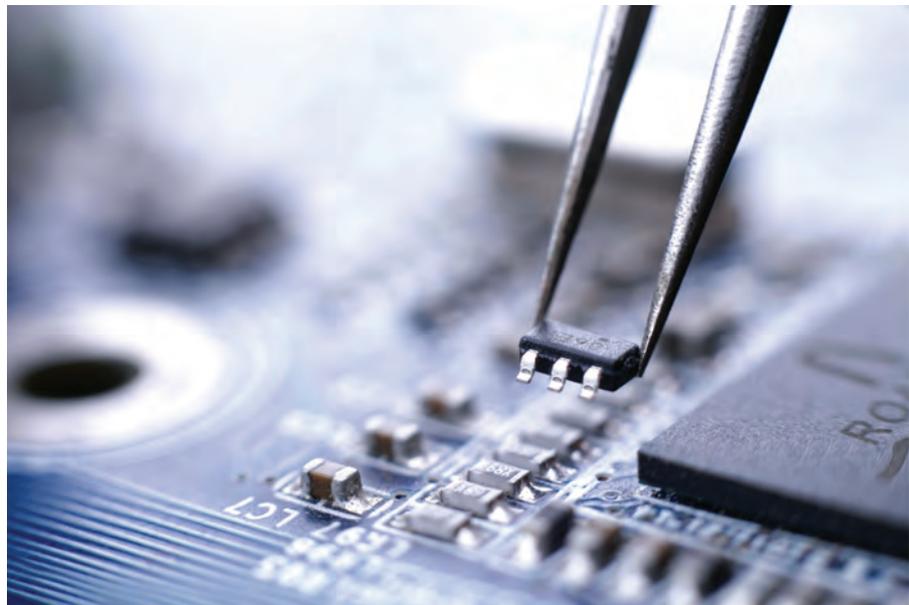
## ELECTRONICS

# Bigger Growth Ahead

Electronics sector looks towards consolidating its gains, as government boosts its sails. **BY SANJAY K OJHA**

India is the world's third largest market for electronics today. The ever-increasing demand for electronic products among Indian consumers with rising disposable incomes commensurate with the phenomenal GDP growth for the past couple of decades has been augmenting the Indian electronics market. According to the Indian Electronics and Semiconductor Association (IESA)-Frost & Sullivan report, the overall Indian electronics industry is expected to grow at a 9.9 per cent compound annual growth rate (CAGR) to touch US\$ 94.2 billion by 2015. The electronics market is likely to reach US\$ 400 billion in 2022 from US\$ 69.6 billion in 2012 with an expected CAGR of 24.4 per cent during 2012-2020, an IBEF report states. The total production of electronics hardware goods in India is estimated to reach US\$ 104 billion by 2020, according to the IBEF report.

PHOTO BY THINKSTOCKPHOTOS.IN



## Growth Drivers

The emergence of the electronics industry in India in the 1960s—which was largely confined to radio, telephone, telegraph and augmentation of defence capabilities—has



witnessed brisk growth post-economic liberalisation, when the government eased norms to facilitate private players. India is adding two million mobile phone users every month currently, according to Corporate Catalyst India (CCI) report, 2013. The explosive growth of mobile phones, especially smartphones, in the past couple of years has led to demand for locally made handsets in the country. The communication and broadcasting equipment segment constituted 31 per cent, which is the highest share of the total production of electronic goods in India in FY13, followed by consumer electronics at 23 per cent (IBEF report).

The country has also witnessed brisk penetration in other segments like internet-related electronic products, consumer durables (refrigerators, washing machines, air conditioners, etc), computers, televisions (TVs), information technology (IT) products, automobile, industrial and medical electronics products. As per the CCI report, the consumer durables and electronics market in rural and semi-urban areas accounts for about 40 per cent of the overall market and is registering a CAGR of about 30 per cent. Besides, the aggressive steps taken by central and state governments to provide e-governance right down to the bottom of the pyramid have been driving the electronics market in a huge way.

Another factor that will catalyse the electronics market is the entry of the country's top consumer electronics and durables makers on to the e-commerce bandwagon to take on the current e-commerce sites, which have hit the sales of brick-and-mortar retailers. Another growth driver is the use of electronics components in the defence and aerospace sectors, with the scenario of warfare changing from the

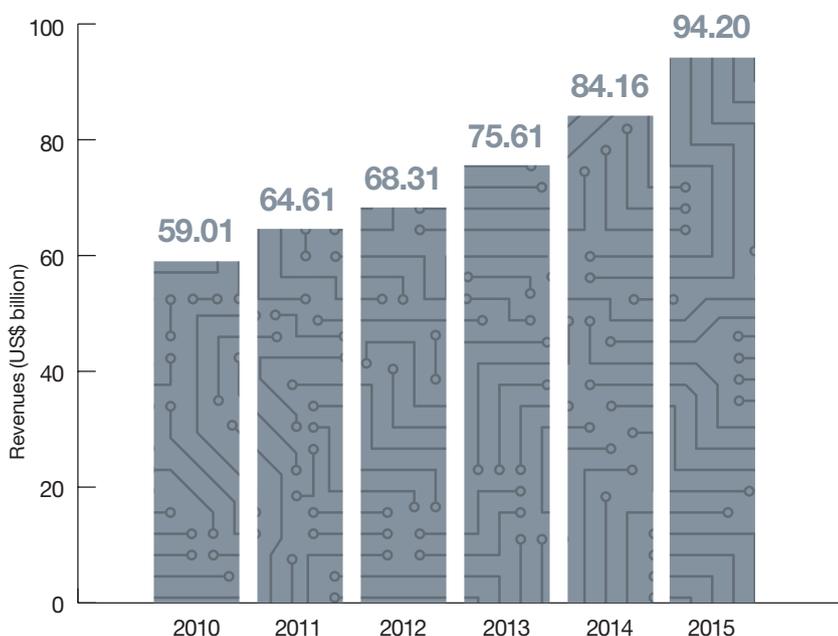
use of weapons to electronics and cyber warfare and thus computer intelligence gaining more importance. A report released by IESA and PwC states that India's defence budget may grow to ₹137,000–154,000 crore (US\$ 22.16–24.9 billion) by 2018. In addition, the healthcare industry in India is predicted to grow at a CAGR of 15 per cent to reach ₹15.15 lakh crore by 2020, as per the IESA report, driven by factors like increasing population coupled with the increase in lifestyle-related health issues, government initiatives to promote medical tourism, etc. To meet the infrastructure shortage across the country, especially in rural areas, special medical equipment is required for facilitating telemedicine, remote diagnosis and low-cost treatment, which again calls for more medical electronics manufacturing in India. According to a CII report, domestic production of electronics hardware will also see a major increase and reach US\$ 100 billion approximately in the next six years. Since there will be a demand-supply mismatch of about US\$ 300 billion, it will act as an inducement for global electronic system and design manufacturing (ESDM) companies to invest in India.

**Government as Enabler**

The Government of India has initiated several steps for the development of the electronics sector in the country to meet the spurt in the consumer demand. It set up electronics hardware technology parks (EHTPs), special economic zones (SEZs) and facilitated a favourable climate for foreign direct investment (FDI) in the electronics sector. The government also approved National Policy on Electronics (NPE), 2012.

One of its objectives is to achieve a turnover of about US\$ 400 billion by 2020 and provide employment to around 28 million by that year, with an investment of about US\$ 100 billion. The policy has underlined the need to develop new chips to meet local needs at affordable costs (Billion Needs, Million Chips). The aim is also to increase domestic electronics manufacturing growth at the same rate as the demand growth. To accelerate electronics manufacturing, the government has decided to meet 50 per cent of the cost of creating common facilities in greenfield EMCs. This amount will be subject to a ceiling of ₹50 crore (US\$ 8 million) for every 100 acre, but with no upper limit. Likewise, the government will meet 75 per cent of the cost of creating common facilities in brownfield EMCs, subject to a ceiling of ₹50 crore, according to a report released during a CII session on *Emerging Business Opportunities for Indian MSMEs in Electronic System Design and Manufacturing Sector* held in March 2014. The policy also proposes setting up of over 200 electronic manufacturing clusters (EMCs)

**India ESDM Industry Forecasts (2010-2015)**



Base Year: 2011 Source: IESA-Frost & Sullivan



across the country and several clusters are being developed in Rajasthan, Karnataka, Odisha and Tamil Nadu, among others. The Ministry for IT, in July this year, cleared setting up of eight EMCs. The government, till date, has notified 50 brownfield EMCs and sanctioned in-principle approvals to seven greenfield EMCs across 13 states and a Union territory. To address the issue of infrastructure—which includes other verticals like solar photovoltaic, automotive electronics, medical electronics, avionics, LED, etc—a scheme for EMCs provides 50 per cent of the cost of upgrading infrastructure and logistics as grant-in-aid from the government.

The policy envisages high-end human resource creation by awarding 2,500 PhDs annually by 2020 in the sector. The government, in November 2013, accorded “in principle” approval for establishing two semiconductor water fabrication (FAB) manufacturing facilities in India. The chip design services sector in India is generating nearly US\$ 2 billion in revenues per year, with nearly 2,000 chips being designed annually and over 20,000 engineers working in various aspects of chip design and verification. Another objective of NPE is to provide fiscal incentives across the value chain of the ESDM sector through a Modified Special Incentive Package Scheme (M-SIPS). The scheme envisages investment subsidy in capital expenditure (20 per cent for investments in SEZs and 25 per cent in non-SEZs), and refund of central taxes and duties for high technology and high capital investment units, like fabrication facilities. The government also plans to set up an Electronics Development Fund (EDF) to support manufacturing of electronics products that would help create 28 million new jobs and reduce imports. In the 12th Five Year Plan (2012–17), the government has proposed to fund ₹1,000 crore (US\$ 1.6 billion) for the benefit of the industry under M-SIPS.

The government offers 25 per cent investment subsidy to electronic manufacturing units being set up in non-SEZ areas and 20 per cent investment subsidy to units that are established in SEZs. The scheme is applicable to units across the entire electronic manufacturing value chain, with a minimum threshold limit of ₹1 crore (US\$ 161,733.79 million). The scheme is meant to boost MSMEs in the electronics manufacturing segment.

### Robust Path Ahead

The ESDM market—comprising electronic products, electronic components, semiconductor design and electronics manufacturing services (EMS)—has been attracting global investments for its manufacturing and designing capabilities

Domestic production of electronics hardware will be **US\$ 104 billion** in six years  
(Source: IBEF)

and the cost structure. With foreign companies looking to build local capabilities in India in order to serve the domestic market and also overseas markets, indigenous capabilities across the ESDM value chain have received a boost. The impetus is also to provide the necessary boost to the various electronics applications markets, like telecom electronics, automotive electronics, consumer electronics and industrial electronics which are at different stages of ecosystem development, and develop the missing links in order to make the local ESDM sector globally competitive.

Prime Minister Narendra Modi's call for *Digital India* and *Make in India* campaigns has provided the much

needed boost to the manufacturing sector. Under *Digital India*, one of the thrust areas of growth is electronics manufacturing and zero imports by 2020. Efforts are on by the central and state governments to create ecosystems, catalyse skill development programmes, facilitate more incentives in terms of subsidies or low interest loans, etc.

Indian mobile phone player, Micromax—which holds a quarter of domestic handset market—in November 2013, announced that it will be assembling its phones in the country. A year later, China's top mobile maker and world's third largest mobile vendor Xiaomi, said it will produce mobiles in India at the idle Nokia plant in Chennai. Lava, the country's fourth-biggest smartphone maker, would commence domestic production of its handsets from April 2015. The company, which produces Lava and Xolo mobile phone brands, proposes to spend ₹500 crore (US\$ 80.87 million) in local operations over three years. Besides, IESA, the trade body representing the Indian ESDM industry, in October this year, stated several initiatives that would accelerate the government's *Make in India* agenda by promoting design-led manufacturing in the Indian ESDM landscape. While IESA signed an MoU with Taipei Computer Association (TCA) of Taiwan and there are moves to sign an understanding with Japan's India Business Support Centre (IBSC), the trade body has also begun talks with its counterparts in Singapore, United States and Israel for similar MoUs. The association has set up the International Investment Promotion Cell (IIPC), which is aimed at encouraging international investments and commitments in the ESDM landscape in India.

In conclusion, with the much-needed government boost, the Indian electronics industry is on track to bring down the supply-demand mismatch and also improve India's overall trade balance by achieving greater self-sufficiency in the coming years. ■



SPICE

# Spice & Science

The healing qualities of spices have caught the attention of the nutraceuticals industry. Spices have also found their way into fortified food items and organic medicines, signifying immense opportunity for the Indian spice industry **BY KAVITHA SRINIVASA**

**W**hat do our traditional Ayurvedic formulations have in common with new age fortified foods? It may seem an unlikely contender but spice is a common and key ingredient in both cases.

Spices are flavoured, aromatic substances used commonly as condiments and sometimes as preservatives. Since time immemorial, several Ayurvedic potions have been created using a combination of ingredients including spices. The use of spice in Ayurveda is not new. We've heard of the healing properties of turmeric or yellow gold in our homes over several generations.

Nutraceutical and life sciences companies and R&D labs are now beginning to proactively explore and leverage the healing, nutritive and health benefits of spices. This segment has created various possibilities of using spices to create fortified foods and organic medicine. "Research and development activities related to the application of spices in stem cell therapy, nutraceuticals and regenerative medicine are in the bud-

ding stage," said Dr A Jayathilak, Chairman, Spices Board India.

Nutraceutical is a portmanteau of the words "nutrition" and "pharmaceutical" coined in 1989 by Stephen L. DeFelice, founder and chairman of the Foundation of Innovation Medicine. The term is applied to products that range from isolated nutrients, dietary supplements and herbal products, to processed foods like cereals, soups and beverages. Extensive research is being carried out in the nutraceutical sector and academia and industry have a long way to go. Yet, some spices are commonly used in the sector. For instance, ericifolin, a compound from all spice, works as an anti-tumour agent against prostate cancer. Turmeric is the most important spice in stem cell therapy and regenerative medicine.

India has a vast compendium of knowledge in traditional medicine wherein spices are extensively used. Leveraging this knowledge to develop products is an advantage to the Indian spice industry. Almost all major spices are cultivated here and the Indian spice industry is a significant contributor to nutraceuticals like the water dispersible

turmeric extract (BCM-95®DC).

Rhulief is a potent anti-inflammatory spray developed with the essential oil of turmeric and *garciniacambogia* extract. "India is the largest producer, consumer and exporter of spices in the world. The domestic consumption of spices accounts for almost 90 per cent of the production and a mere 10 percent is exported. The non-traditional use of spices and spice products is an emerging field, and holds great export potential," adds Dr Jayathilak. Indian spice exports have steadily gained in both value (CAGR of 21 per cent) and volume (CAGR of 12 per cent) terms over the past five years, indicating the increasing focus towards value addition and also towards non-traditional applications of spices. In 2013-14, spice exports stood at 817,250 tonnes in volume terms and ₹13,735.39 crore (US\$ 2.27 billion) in value terms, according to the Spices Board India.

In its effort to promote research, the Spices Board India under the Export Development & Promotion of Spices programme, provides financial assistance to the exporters/research institu-



tions to undertake product research and development of nutraceutical products.

### New Highs of Nutraceuticals

In India, the nutraceutical industry has evolved from foods that started out as those enriched “with natural ingredients” to currently foods that “reduce risk of diseases.” Consumers are showing a greater preference for instant mixes and fortified foods over tablets and tonics, which are closely linked in the consumers’ mind to sickness and disease. The fortified dairy products sub segment is the fastest growing among functional foods. The segment is likely to grow at a five-year CAGR (compounded annual growth rate) of 17.6 per cent. Furthermore, the ease and speed of preparation of instant mixes makes them the format of choice for most consumers. The Indian consumer, especially the middle class, relies heavily on traditional wisdom to achieve complete nutrition. These consumers prefer to use natural extracts of medicinal plants and herbs such as *amla* and *ajwain* for their health and nutrition as opposed to products readily available in the market. This trend stems from both the affordability of such remedies (when compared to nutraceuticals) and a deep-rooted belief in age-old therapies. An increase in disposable incomes in middle class India has given a boost to the nutraceutical industry. This explains why fortified foods are being packaged in convenient formats like chewing gum.

Nutraceutical manufacturers are gradually making a push towards Tier II and III cities in a bid to tap a wider market. While this will definitely help improve the awareness of nutraceuticals as a whole, manufacturers will be required to use a more focussed approach in line with consumer lifestyles, goals and concurrent nutrition gaps to drive consumption.

### Food Containing Spices

A growing demand for functional food urged Avesthagen, one of India’s leading integrated systems biology platform

companies, to create a portfolio of food products that will be launched under its own brand in India and global markets. Avesthagen has pioneered the convergence between food, pharma and population genetics leading to predictive, preventive and personalised healthcare. The company has already forayed into the functional food category with its line of whole wheat crackers containing *Teestar*. Derived from fenugreek extract, *Teestar* is a clinically validated bio-active for blood sugar management. Whole wheat crackers will be reintroduced with the new range.

“Avesthagen Nutrition unit develops and commercialises products that target the growing population of health conscious consumers around the globe. This population is increasingly seeking to manage and improve its general health and well-being or to prevent or treat certain diseases or ailments through regular intake of functional foods and dietary supplements,”



**“India is the largest producer, consumer and exporter of spices in the world. The non-traditional use of spices is an emerging field and holds great export potential.”**

— Dr A Jayathilak  
Chairman, Spices Board India

explains Dr Renuka Jain, Chief Scientific Officer, Avesthagen Nutrition & Metabolomics, Avesthagen Limited.

At Avesthagen, spices like cumin, chilli, garlic, fenugreek, cinnamon, sesame and pepper are used as a whole and also as standardised extracts in food products. Dr Jain says, “The convergence of traditional medicine and modern science has enabled us to isolate distinct extracts and bioactive fractions that have validated therapeutic and health benefits. Our current portfolio includes products and product candidates that have been scientifically validated in various therapeutic areas including diabetes, bone health, cardiovascular and metabolic diseases.”

### Spicy Organic Medicines

Having established Soukya, a first-of-its-kind fully residential integrated medical facility in Bangalore, Dr Issac Mathai integrated the essence of homeopathy with yoga therapy, naturopathy, ayurveda and detox processes like *panchakarma* in his practice. Spices play an important role. “The pharmacology of holistic/ Indian medicine deals with a variety of spices along with a vast number of other medicinal herbs. Roughly around 1,200 varieties of herbs are being used in medicine preparation. So spices are an integral part of the resources of natural medicine,” says Dr Issac Mathai, Founder, Chairman, and Managing & Medical Director of Soukya International Holistic Health Centre, which is India’s first NABH accredited medical and wellness centre. Among all spices, dry ginger is the most commonly used, to the extent that a phrase has been evolved in the colloquial language that “no medicine is complete without dry ginger”.

The other commonly used spices in herbal medicine are turmeric, cumin, pepper, coriander, cardamom and cinnamon, among others. “In our production facility we ensure collection of these ingredients, at their best quality and processed under strict hygiene conditions and using most authentic methods. Our in-house research associates have



developed around 12 new herbal combinations for various common ailments,” explains Dr Mathai. Soukya’s portfolio of medicines already contains spices like dry ginger, turmeric, pepper, cardamom and coriander.

### Ginger Quotient

Several established nutraceutical companies that have relied on spice extracts have now taken their endeavours to the next level. A case in point is the SAMI/Sabinsa Group, an Indian multinational health science company, which has 94 patents to its credit. A number of these patents are for processes that are innovative and optimised to bring out the best in spices. For over 25 years, the company has pioneered several innovative phytonutrients that are available in the US and global markets. “Clinical evidence of the bioavailability enhancement property of this product reveals clearly as to how different a formulation functions in the presence and absence of this spice extract. BioPerine has been used as a bioavailability enhancer for over 15 years. It may be co-administered with various nutrients to enhance the bioavailability in both humans and animals,” reveals Dr Muhammed Majeed, Founder & Managing Director, SAMI/Sabinsa Group.

Right now, R&D teams are working on the various traditional species of ginger. “The research groups are standardising them to new bioactive molecules, and are also exploring their use in therapeutic applications not reported ever before,” says Dr Majeed and adds, “Health consciousness among people is increasing as much as their stress levels and scientifically validated traditional ingredients are reaching the common man for their health and wellness benefits.” GarCitrin is a clinically evaluated and standardised extract obtained from the dried fruit rinds of Garciniacambogia. It is commonly known as *Kodampuli* or Malabar tamarind. It is standardised for minimum 50% (-) Hydroxycitric acid (HCA) and minimum 5% Garcinol. This extract gave Sabinsa its third

## Use of Spices in Nutraceutical Sector

- Leaves of all spice serve as analgesic and antihypertensive.
- Red chillies, cinnamon, cloves, black pepper and ginger help in treating obesity disorders and insulin resistance.
- Turmeric, red pepper, black pepper, garlic, coriander and cinnamon help in preventing neuro-degenerative diseases.
- *Curcumin* in turmeric and capsaicin in chillies act against hypercholesterolemia.
- *Curcumin* in turmeric, *capsaicin* in chillies, eugenol in clove and rosmarinic acid in rosemary are effective antioxidants.

(Source: Spices Board India)



Thomas Alva Edison Patent award in 2009. It has been clinically evaluated that GarCitrin reduces fatty acid and lipid synthesis and improves lean body mass much more effectively than HCA alone. The company also manufactures standardised extracts from celery, fenugreek, ginger and rosemary. Many of these extracts are manufactured through solvent free processes, using the technology of super critical fluid extraction (SCFE). Annually, the company requires 15,000 to 20,000 tonnes of spices. Sami initiated medicinal plant cultivation with a handful of farmers. Over the years, this effort has translated into a large scale cultivation model involving thousands of acres and supporting a large number of farmers.

### Spice all the Way

Nutraceuticals use spices for their phy-

tonutrients, essential oils, antioxidants and vitamins which are known to have disease preventing and health promoting properties. The increasing awareness of the benefits of dietary supplements and the shift of the healthcare market in favour of nutraceuticals will drive the business forward. “The most extensively researched spice present in virtually each and every Indian kitchen is turmeric—*Curcuma longa*—which is found to exhibit excellent chemopreventive, immune enhancing, antioxidant and anti-inflammatory actions, which can be applied in many disease areas,” explains Dr Shefali Thanawala, Assistant General Manager – Medical Affairs, Plethico Pharmaceuticals Ltd, an Indore-based pharmaceutical company. Travisil herbal cough syrup and lozenges, its flagship brand that offers a unique blend of potent medicinal herbs and spices such as *Piper nigrum* and *Curcuma longa*, has a strong presence in India and international markets. Travisil is a herbal cough remedy that contains 15 time-tested herbs including ginger, turmeric, liquorice, pepper, basil, fennel and menthol.

Cinnamon or *Cinnamomum zeylanicum*, is well researched for its antidiabetic action. “Garlic or *Allium sativum*, as we all know now, is recognised as an effective cholesterol balancer, while fenugreek or *methi* (*Trigonella foenum-graecum*) is a well-researched hypolipidemic and antidiabetic agent, which also aids in weight management. Ginger – *Zingiber officinalis* – another common household spice is found to exert antiemetic, anti-inflammatory and pain relieving actions,” adds Dr Thanawala.

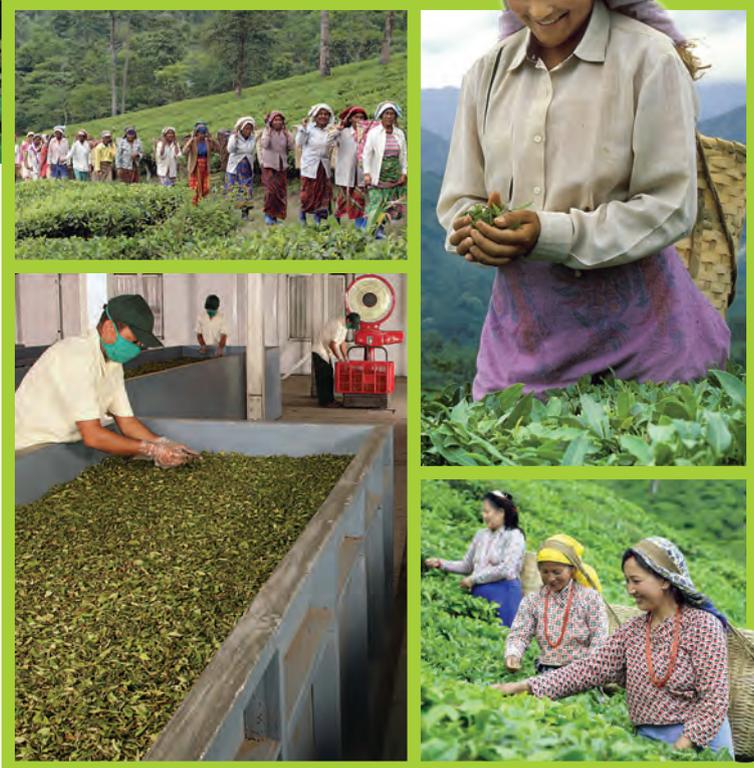
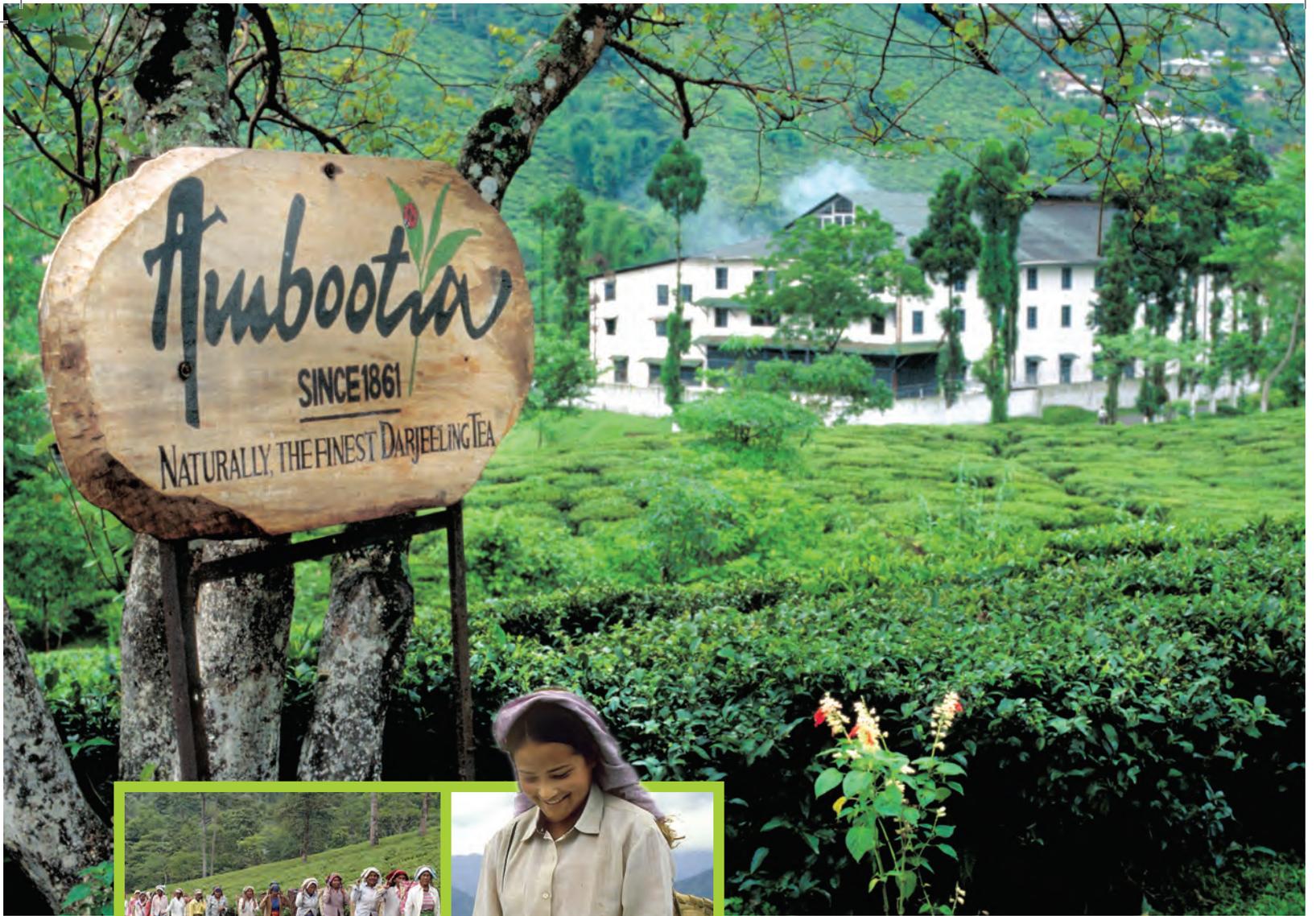
The health enhancing qualities of spices are endless and so are their applications. Consumption patterns and lifestyles have also changed, thereby encouraging players to rev up their R&D engines and develop a range of nutraceutical products that leverage the manifold benefits of Indian spices. So don’t be surprised if your energy drink or instant mixes pack in a potpourri of spices in the near future. ■

# WORLD'S SPICE BOWL

India is the world's largest producer and exporter of spices.



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# Inspired by the Vedic Tradition

Ambootia Group has gone from strength to strength by adopting a dynamic, sustainable and innovation-led approach across the tea value chain. BY TEAM IBEF



**T**he hill station of Darjeeling on the foothills of the Himalayas, also known as Queen of the Hills, has been a favoured summer retreat since the days of the British Raj. Darjeeling promises a number of exotic and enthralling experiences that would stay with you for a lifetime—a ride in the toy train, the view of the sunrise over the Kanchenjunga from Tiger Hill, a walk across the Chowrasta, a treat of hot chocolate at Keventer's, a visit to the Buddhist monastery at Ghoom and of course, a visit to any of its mystical tea gardens.

Tea from Darjeeling has an exalted stature in the pecking order for tea connoisseurs worldwide. Around 10 million kg of this tea is produced annually. For its unique and exquisite Muscatel flavour, Darjeeling tea is regarded as the *Fine Wine of Tea* and the best Darjeeling tea varieties command exceptionally high prices at global auctions. One would therefore consider the ownership of a tea estate in Darjeeling as a treasure trove. But its true worth can only be actualised through painstaking efforts over a long period of time, led by exemplary vision and enterprise. Sanjay Prakash Bansal, Chairman, Ambootia Group, was born in the Ambootia Tea Estate (Ambootia means the place of mango trees) and spent his childhood in a tea garden (although, he also admits that he had his first cup of tea at the age of 17!). When his father took over the estate in 1987, Sanjay was asked to go and turn it around, as it had become a sick unit. The garden was set up in Kurseung North over a surface area of 966.7 hectares (348.43 hectares under tea) and average annual production of 180,000 kg.

### Responsible Enterprise

What followed was an inspiring saga of success in the tea plantation business for the group, which has grown from strength to strength over the years. Ambootia Tea Group is currently one of the most popular brands in the world

of Darjeeling tea—be it for the quality, flavour and depth of their range, the sustainable practices being followed by them or their reputation for reviving sick tea estates.

According to Bansal, the tea garden model basically depends on leveraging two critical and long term factors of production—land and workers. He firmly believes that if tea gardens don't do well, the reason generally is bad entrepreneurship or bad management. If both these factors of production are cared for, the tea estate business is quite lucrative in the long run.

To improve the productivity of the farm, Ambootia Tea Group adopted the biodynamic method of farming. Interestingly, this holistic farming practice, which was initiated by Austrian scientist and philosopher Dr Rudolf Steiner, has been influenced by ancient Vedic practices of agriculture. The theory postulates that an ideal biodynamic farm is a self-sufficient unit, a closed ecosystem that will produce its own compost, seeds and livestock. Besides, such a farm functions effectively within the larger context of its local community as well as the rhythms and relationship of nature and the entire cosmos.

Today, the biodynamic farming initiative at Ambootia Tea Estate is duly recognised as a successful case study in the field. Ambootia uses preparations from locally available herbs and fermented manure to grow the tea crop. The tea grown is of better quality and flavour and is also healthier. "Once the soil gets healthy, the tea becomes healthy and the inherent quality of the green leaves improves, thereby getting us higher quality produce and generating higher revenues. The other impact of biodynamic farming is that the shoots we get from tea leaves become softer. So it is easier for the tea pickers to pick those leaves without hurting their fingers. Additionally, in the biodynamic system of farming, we do not use any agrochemicals and there is no collateral damage to the workers' health," explains Bansal the benefits of organic farming.

### Tea Time with Fine Wine of Darjeeling Tea

- Darjeeling tea has a unique Muscatel flavour favoured by connoisseurs.
- Darjeeling produces around 10 million kg of tea annually.
- Ambootia Tea Estate produces 180,000 kg of tea annually.
- First Flush Darjeeling tea is grown in mid-March. The spring variety of tea is a connoisseur's must have. It has light green colour, light floral or earthy flavour and is mildly astringent. Each garden has its own signature first flush Darjeeling tea.
- The *Champagne of Tea*, is believed to be blessed by the wind that blows there which is said to be the breath of Lord Shiva and watered by river Ganga flowing from Lord Shiva's head.
- A perfectly brewed cup of Darjeeling tea is said to tingle all the five senses.

(Source: <http://interestingfactsandinformation.blogspot.in/>)

A 100 KVA Hydel Project was also made operational in 2004, which powers the factory during the period from June to October while maintaining a positive impact on the environment. The garden has also been selected as a model farm for cultivation of Darjeeling Organic Tea under the United Nations FAO project.

The management has also been cognisant of the needs of workers with specific focus on areas like healthcare, education, nutrition and income augmentation. Besides cash emoluments, they get provident fund and gratuity benefits. Workers are also provided free medical facilities and expenses for doctors, free housing to every worker in a space of around 330 sq ft with toilet and kitchen, free water, rations that are almost free along with protective clothing, blankets, footwear and fuel for cooking. Education of their children is also a key priority area as Bansal emphasises, "Their children are provided free education till the level of primary school along with uniforms, study material, etc. We are

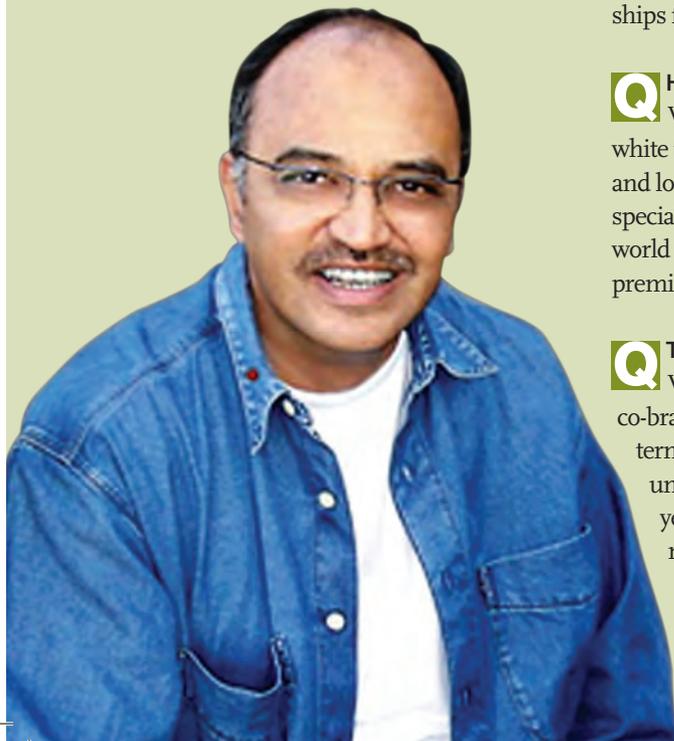
happy that 100 per cent of the children avail such facilities. We also sponsor scholarships for outstanding students to pursue higher studies.” Under the Income Augmentation Programme for

workers, several initiatives have been taken. For instance, ginger cultivated in the homesteads is bought by the management and taken to Delhi for processing and value addition. The

management proposes to set up its own processing unit in Darjeeling to facilitate and strengthen the Income Augmentation Programme. Various high value exotic herbs, flowers

## “BIODYNAMIC METHOD OF FARMING KICKSTARTS THE REJUVENATIVE CAPACITY OF THE SOIL”

Sanjay Prakash Bansal, Chairman, Ambootia Group, talks about the symbiotic relationship of the tea growers and the gardens, the biodynamic method of organic farming and the branding strategy going forward.



**Q** What are the key takeaways from your experience on how to manage a successful tea plantation business?

The tea estate model was created by the British. At the core is the availability of factors of production—land and workers—which have to be managed properly. The condition of workers is important. They have to be provided a secure environment that inculcates a sense of ownership and belonging. Typically the tea plant has a long age. So both are long-term factors of production. When the tea estate becomes sick, our takeaway is that it is because of poor entrepreneurship or management. I would say that improved management plays a significant role in the revival of a sick tea estate.

**Q** Tell us about the key benefits of the biodynamic method of farming adopted by you.

The biodynamic method of organic farming reinvigorates and kickstarts the rejuvenative capacity of the soil. Once the soil gets healthy, the tea becomes healthy and the inherent quality of the green leaves improves, getting us higher quality produce, generating higher revenues. The other impact is that the shoots we get from tea leaves become softer. So it is easier for the tea pickers to pick those leaves without hurting their fingers. Additionally, we do not use any agrochemicals and there is no collateral damage to the workers’ health. Our spending on medicines has reduced a lot and the health of workers has become better. It also prevents contamination of ground water.

**Q** What are the major benefits that you are providing to workers on your tea estates?

We have a cash emolument for daily wage and provident fund and gratuity benefits. Workers are also provided free medical facilities and expense for doctors, medical leave and casual leave. We provide free housing to every worker in a space of around 330 sq ft with toilet and kitchen, free water and medical. Rations are almost free and we also provide protective clothing, blankets, footwear and fuel for cooking. Free primary education along with uniforms, study material, etc are guaranteed to their children. We are happy that 100 per cent of the children avail these facilities. We also sponsor scholarships for outstanding students to pursue higher studies.

**Q** How have the value added tea varieties fared in international markets?

We made the first green tea from Darjeeling in 1989 and in 1991, we made the first white tea in India. Since 1991, we have been involved in the process of experimenting and looking at the different virtues of the tea leaves and have created around 66 specialty tea varieties. We offer these tea varieties in high-end retail outlets around the world such as Harrods and Mariage Frères Tea Houses. All these tea varieties command premium prices.

**Q** Tell us about your approach to building brand equity in international markets.

We have already been able to build brand equity among consumers through our co-branded strategy, which we launched in 1991. That has given us rich dividends in terms of recall. Now we are planning the international launch of our branded product under the *Make in India* initiative. We are going to do a web launch in the coming year. We will leverage the web and social media and customise according to the market we are catering to.

and spices have been planted as experimental projects, to be adopted on a larger scale, providing even better opportunities to the workers and their families over time.

## Farm to Market

While it was considered a risk initially, biodynamic farming has paid rich dividends. After the success of this venture, there has been no looking back as the group managed to replicate this achievement across other sick units that it subsequently acquired. Ambootia Tea Group is now the largest producer of biodynamic organic tea in the world. Its operations are integrated across the value chain to include cultivating, processing, warehousing, blending, packaging and marketing of its tea. The group has benchmarked itself successfully to international standards of production and food safety by implementing good agricultural practices (GAP), good manufacturing practices (GMP) and food safety for market access. It now has 11 tea estates in Darjeeling and one in Assam.

Innovation has also been a critical success factor for Ambootia over the years. The company was the first to produce green tea from Darjeeling in 1989 and also the first to manufacture white tea in 1991. It has built a formidable positioning for itself through its high quality Darjeeling Organic teas. More than 35 varieties are currently on offer from Ambootia's portfolio, which command exceptionally high prices in the international market (going upto £ 5,000 per kg). Discerning customers have grown to appreciate both the quality of the company's specialty tea varieties and the unique flavour characteristics in the cup. Ambootia's Brumes D'Himalaya, for instance, is specially made for French gourmet tea company Mariage Frères, and the Spring Dance tea is sold at the popular Harrods store in London.

The company bases its marketing strategy on three principles—quality, trust and confidence; relationships and brands. Ambootia's management has



**The Perfect Cup:** Before we get that heavenly cup, tea goes through a number of processes like withering, drying, rolling, sorting, blending destoning, etc., and the final stamp of approval by the master tasters.

developed close relationships at the senior level with client organisations, enabling them to respond swiftly and effectively to client needs. It has also been able to successfully leverage co-branding efforts to build its brand equity in strategic markets. Generally, the co-branding happens with the specific name of the tea estate. The company is also looking at taking its branding efforts to the next level, as Bansal affirms, "We are also looking at taking it (branding) forward and possibly having our own brand in domains that do not cannibalise on our existing marketing arrangements."

The company is eyeing tea tourism with its strategically located tea estates. The Government of West Bengal has allowed tea tourism activities in five acres of each tea estate. "We are working on a programme with an international boutique hotel chain and are hopeful that in another year or two, we will be

launching a unique organic certified tea tourism resort because our tea estates are 100 per cent biodynamic and organic certified. The whole experience will be on an environmentally sustainable platform. We are also planning to set up a Happy Valley Tea Centre at Happy Valley Tea Estate where we will offer a bouquet of information for the tourists including tea field tours, audio-visual films, recreating the history of the Darjeeling tea industry, tea appreciation ceremonies, tea tasting courses, exposure to the manufacturing process in the factory, tea lounge and a whole lot of activities surrounding the world of tea," informs Bansal.

A dynamic and progressive approach towards the entire value chain from the farm to the factory to the R&D and tasting labs to the market has been the cornerstone of Ambootia's success and now it is well placed to embark on the next phase of its remarkable journey. ■





# Stay Connected with Gecko

**Gecko is a multipurpose device that takes you a step closer to the Internet of Things, a world where everything is connected. Connovate Technology, its creator, has more such products up its sleeve.**

**BY SANGITA THAKUR VARMA**

**T**his Gecko is not a lizard. It is a bluetooth low energy (BLE) device that works as an appcessory (an accessory with smartphone app), to make your smartphone even smarter. “The product Gecko, I can say proudly, is my idea and dream to show the world that India can produce innovative products,” says its creator Bahubali Shete, Founder, CEO & Managing Director, Connovate Technology Private Limited. It is with companies like Connovate that India is marking its presence on the Internet of Things (IoT) platform. The frenzy around IoT is reaching an inflection point across the world. As the crescendo around connected devices builds up, we are inexorably moving towards a world where we are destined to live with almost everything connected—objects, animals, plants, people, etc. The space in India too is poised for bigger innovations, with the country coming up with a framework policy on IoT. Vision Digital India is a further boost to the rapidly evolving IoT space, offering immense opportunities to businesses.

To stay relevant in the Web 3.0 space, it is imperative for entrepreneurs to constantly innovate. IoT is a field that requires smart thinking. It was in this evolving global scenario that Bahubali Shete, a serial entrepreneur, entered the IoT fold. “In November 2012, I seeded the idea of a new startup in the IoT space,” he says. A 1988 batch graduate from BVB College of

Engineering, Hubli, Shete spent the initial years of his career working in the field of industrial automation. However, he always felt the entrepreneurial itch. This led him to “try his hands at entrepreneurship skills” in these early years with three startups. Shete then went on to work with Kirloskar, Tata (Nelco) and Philips in the first 12 years of his professional life and then proceeded to Ireland and the USA to work with Moog Inc on electro-mechanical actuators and they built the world’s first Class D All Electric Flight Simulator. On his return to India, Shete initially led teams for Storage and DSP (digital signal processing) in Tata Elxsi before jumping back into startups. He worked as Director and CTO in Galaxy Intelligentia, where they built the world’s first patented technology in robotic valet parking. Now backed with 26 years of experience in the industry, Shete planned his own venture.

Shete also called in three other industry veterans to join the startup. One of them was a customer, Rajeevkumar M, a post-graduate engineer. “Since 2008, he was associated with me as a customer and went on to become my partner when I invited him in 2012. Rajeevkumar brings with him excellent CE (Conformité Européenne) product management skills and 14 years of experience in the manufacturing ecosystems of China and Hong Kong. He added great value in the Gecko manufacturing setup,” says Shete. The other partner, Kirankumar Rajarao, was



a classmate in engineering and had worked in India and Africa with RPG, Videocon and other such reputed organisations. “He comes with great insights in operations and his experience in Africa with Sundaraparipurnan Varadarajan (my fourth partner) in greenfield startups was an added advantage in setting up operations for our enterprise,” Shete remarks. Varadarajan is an engineer and a cost accountant and brings to the table a new angle of thinking in startups from the financial point of view. He too has worked with some of the best companies, like Ashok Leyland, in senior management positions and essays an advisory role for the partners.

Connovate was launched as a design engineering and product solutions company with the aim to become a globally recognised name in connected devices. With its focus on the entire ecosystem for connected devices, the company primarily specialises in design and manufacturing of all components required in the field of wearable smart devices, personal wellness gadgets and smart home control and automation solutions. In the technology domain, its expertise includes devices, embedded applications and cloud and mobile applications space. Wearable technology has taken the world by storm since its first *avatar* in the form of a calculator watch in the 1980s and Connovate is a rising star here.

When Connovate rolled out the multifunctional piece Gecko, India took a small step in the IoT space but it heralded big news for smartphones—they could now do a lot more with this coin sized gesture control peripheral. Connectedness is not built into Gecko, rather it is equipped with an accelerometer that can be connected to a smartphone via low energy Bluetooth. You can get a control on your life with Gecko through the accelerometer-bluetooth-based tags. It also enables gesture control and triggers to the smartphone. Gecko Tag was one of the first few products rolled out in the IoT space by the company on its BLE platform. “The application of Gecko Tag is the first of its kind with affordable technology,” says Shete proudly. Given its multiple applications, it is not surprising that the device has been received well in the iOS (Apple users) space. Though Shete accedes, “We had our own share of issues due to lack of support in Android, however, we are definitely witnessing a good volume pickup despite problems in Android app as people like the concept and the product.”

Shete explains the many applications of Gecko, “You can trigger smart actions on your phone like music control, selfie, etc.; tag it on to valuables like bags, keys, laptops to track and find them; put it on a pill box and make sure that you get a reminder as well as an alert if you miss a medication; tag it on your door or window and get an alert when someone moves them (within bluetooth range of course); trigger your DSLR camera remotely within bluetooth range from your smart phone; tag it on your luggage and get an alert when someone moves it while you are waiting for the transport, or get an alert when the bag arrives in bluetooth range while you are waiting in the baggage claim area.” But this is not all. Gecko is so versatile that it can be adapted to the user’s requirement. You just need to use your imagina-



“There is a great opportunity for OEMs in the M2M space to make their products

**connected...this solution will enable our customers to roll out connected devices...”**

—Bahubali Shete, Founder, CEO & MD, Connovate Technology

tion. The hand-held device has a removable coin cell battery, TI CC2541 SoC, with one year battery life, a buzzer and LED light for alerts. The small wonder is packed with four gestures that provide the user control over his things. Tagged to Gecko, your stuff and your beloved are now under your power, safe. Gecko makes you relax.

The company however is not just into making Gecko. Shete elaborates, “Connovate has been working on multiple products. Gecko Tag is just one of them. Our second product which had great commercial success is a Baby Monitor from Motorola in USA. This was developed as a service to Hubble (at that time Connovate’s customer and now a company that took majority stake in Connovate because of it). We also have another GPS enabled smart product which will be rolled out by our customer in India. We have a B2B product based on iBeacon technology from Apple and it is picking up very fast and we have a great product roadmap with SDK (software development kit).”

All of Connovate’s products are aimed at both self-brand-

IMAGING BY CHARU DWIVEDI



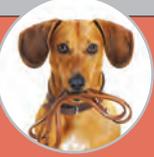
# Stay in Control with Multipurpose Gecko



**Say Cheese & Click**  
Set up Gecko as camera trigger. Plug your Gecko to DSLR camera using the DSLR cable (order separately). Tap the camera icon on the Gecko page to trigger focus and shutter on your DSLR. Alternatively, use Gecko to trigger the smartphone camera. Select front or rear camera as well from your Gecko gestures.



**Never Miss your Pill**  
Set up Gecko as a Pillbox, set the medication schedule and the emails/ phone numbers where you want the alert. If the pillbox is not used on time, Gecko sends alerts.



**Never Lose, Always Find**  
Tag Gecko on your key chain or wallet or slip into your purse. Set up Gecko for tracking on your App. You will get alerted when Gecko and your smartphones are moved apart. If you still lose it, let Gecko World find it for you. It's that easy!



**Be Warned, Intruder!**  
Stick or tag Gecko on your door or luggage. If anyone opens the door or moves your luggage, Gecko alerts.



**Turn up the Volume**  
Use Gecko gestures to control the music playback.

ing, and white labelled solutions for other original equipment manufacturers (OEMs). “We already are on the verge of signing a couple of major OEMs for white labelled products,” informs Shete. As regards the market for Connovate’s products, Shete emphasises its reach. “From the start we were very clear that the global market—US and Europe apart from India—are our target geographical markets. We are in the home automation market segment and will focus on that. With our iBeacon kit and machine to machine (M2M) SDK, we are targeting OEMs as another major segment,” he says pointing to the expanding market of Connovate. Currently, the company is busy working on innovations around the home automation and M2M space. “We are rolling out our own product in the home automation space under the Hubble brand. We are also rolling out M2M SDK for OEMs to make their products connected products/IoT ready/IoT enabled,” says Shete. M2M SDK is a great solution from Connovate and the company has worldwide partnerships with a major telecom company for M2M with BLE plus cellular technology. Shete shares the company’s future plans saying, “I am very confident that this solution will enable our customers to roll out connected solutions very fast in the market.” Another of the company’s products, Connovate

Weigh Smart, is just the right pick for the health conscious. A digital health case, it comes with a smartphone app for free and is packed with a built in BLE technology. Available for both Android and iOS smartphones, the device records the weight and the BMI index and sends it to the connected smartphone everytime the user climbs on the weighing scale.

It is a measure of this barely two-year old startup’s success that in October this year it was acquired by Binatone, the Hong Kong based consumer electronics company, which was one of its major clients. According to media reports, this was one of the first deals in the hardware space in recent times and marks the start of India’s startup journey in the IoT space. Binatone with 1,500 stores in the US and 1,000 in Europe will be providing shelf space to Connovate’s products. Connovate merged with Binatone’s subsidiary, Hubble Connected. In November 2013, it had run a highly successful crowdfunding campaign on the crowdfunding platform Indiegogo and was flooded with preorders from US, UK, Germany (7,500) and India (500).

IoT is the buzzword right now and still taking shape. Major giants like Apple, Samsung, Amazon, Google and Microsoft and in fact everyone is in the IoT race. Connovate surely is on its way to becoming a leader with its innovative products. ■

*(Based on interview & secondary research)*





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# ARTS & CULTURE



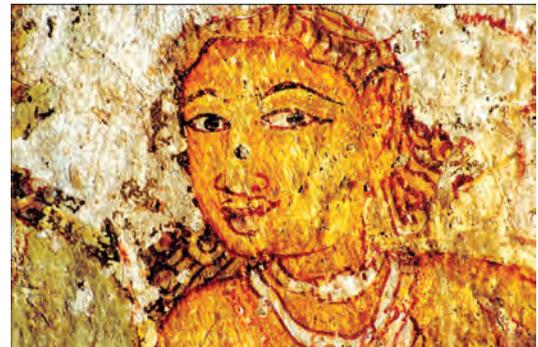
**Abode of History:** The seminal works on Brhadisvara Temple in Tanjavur and the Ajanta Caves encapsulate more than 20 years of effort by eminent scholars.

## Keeper of Arts

IGNCA has a monumental mandate—chronicling India’s rich cultural past. **BY SANGITA THAKUR VARMA**

What makes Indira Gandhi National Centre for the Arts (IGNCA) unique from all the other cultural institutions of India? This was the question we wanted answered when we decided to do a story on the premier art body. Dipali Khanna, Member Secretary, IGNCA, breaks into a smile, as though expecting it. It is not the first time that she has had to answer this question and along with it another, more crucial one: “If IGNCA is a national centre for the arts, why is it Delhi-centric,” she reveals. Khanna took charge in 2012 and apart from satisfying random curiosity, what she has also been trying to do is ensure more visibility for the centre and expand its outreach. “The general public has not been aware of the rich cultural resources available with IGNCA and also some very crucial work done by the centre. There was, therefore, a dire need for bringing together all the resources, managing them properly and putting them out in the open,” says Khanna.

The result has been a large number of lecture series, workshops, semi-



nars, panel discussions, etc., targeting people from all walks of life. If you take a look at the moving scroll on the centre’s Home Page, its calendar for the month is choc a bloc with a variety of programmes—a panel discussion on *Language Loss and Indigenous Cultures in India and Canada*, a lecture on *Artistic Dimensions of Shaiva – Agamas with special reference to Vatula Suddha Agamas*, an exhibition titled *Kantha: Poetry Embroidered on Cloth*, a film screening of *Mirasans of Punjab – Born to Sing* and a three-day UNBOX Festival 2014, which is a celebration of collaborations at the intersection of design, social innovation, culture, technol-



## ▶ Chronicles of President's Lair

IGNCA has been entrusted with the prestigious task to officially document the

Rashtrapati Bhavan. The aim of this marathon exercise is to produce a volume of reliable and meticulous literature on this prestigious

monument for dissemination of information among the public. All aspects of Rashtrapati Bhavan will be covered. A children's book

is also being developed. The announcement regarding the project was made at the 25th anniversary of the IGNCA by the President of India.



ogy, art and enterprise. Last month, IGNCA held an exhibition *Tanjavur Brhadisvara: The Monument and the Living Tradition*, in Valladolid, Spain and an *IGNCA Rock Art Exhibition* at Yinchuan World Rock Art Museum in China.

The wide repertoire of IGNCA establishes its credentials as a multidimensional art organisation that as Khanna says, “encompasses not only all forms of art but also the textual and the various manifestations of art, making its mandate unique and wide”. Set up in 1986 primarily to fulfil the long felt academic research needs of art scholars, it is a centre for holistic study of the arts—art viewed through the kaleidoscope of all its dimensions including architecture, visual, archeological, performance, ritual, mythical, cultural and fairs and festivals. This composite and comprehensive study of art as denoting the entire genre is what makes the IGNCA different from organisations that are devoted to just one art form or one aspect of art.

The pioneering attempt to compile and preserve the vast but fragmented and widely distributed art heritage of India has today equipped the centre to serve as a centre for arts, especially primary material (written or oral, pictorial and audio visual etc); a research and reference centre where it takes on research and publication programmes of reference works, glossaries, dictionaries, encyclopedias, fundamental texts

### ▶ Living Archives:

IGNCA has collected an enviable database of photographs, audio videos, slides, GPS data and line drawings on India's unique rock art. The *Kala Nidhi* reference library is a treasure trove of microfilms comprising 250,000 manuscripts in Sanskrit, Pali, Persian and Arabian languages. There are 77,000 slides on Indian arts procured from Indian and foreign archives, and personal collections of some eminent scholars. Digitisation of this work is an ongoing effort.

in the arts in various ancient languages like Sanskrit, Pali and Indus languages; a repository of tribal and folk arts collections for undertaking, collecting, facilitating systematic, scientific studies in this area; a forum for creative and critical dialogue among the diverse art forms including in its range everything from architecture, to paintings, culture, photography, films, pottery, terracotta, etc; promoter of Indian arts through performances, exhibitions, multimedia projections, conferences, seminars, workshops and disseminator of art awareness by creating sensitivity through cultural and historical interactions. IGNCA also works to bridge the gap in intellectual understanding and provides linkages to national and international centres of arts to scholars. Another major work area involves indexing, cataloguing, processing, etc., of the information accurately for preserving it for posterity.

Each of IGNCA's divisions, named rather evocatively, is devoted to a specific research area. The research programmes are rigorous undertakings. Kalakosa, the department of textual traditions, is the research and publication wing of the centre. Some of its major programmes include *Kalatattvakosa*, *Kalamulasastra*, *Kalasalocana* and an





**The Rocks Speak:** IGNCA is bringing India's huge rock art riches for public consumption through its pioneering work.

*Encyclopedia of Arts. Kalatattvakosa* is an interesting effort comprising a multi-volume lexicon of core concepts of Indian thought. It contains 262 terms based on 652 primary texts ranging from Vedic literature to the *Puranas*, *Agamas*, *Upanishads* and other scholastic traditions of India. Six volumes of this mega effort have been published and the seventh volume is in the pipeline. Under *Kalamulasastra* programme 33 texts have been published in 76 volumes. This series comprises texts from various disciplines like rituals, sculpture, architecture, painting, music, dance, aesthetics, etc., and includes translations, annotations, commentaries, indexes, etc. *Kalasamalocana* is a series on Indian writing by eminent scholars of arts.

The *Janapada Sampada* division, the research and documentation division on contextual aspects of culture, provides comprehensive information on India's cultural traditions, cultures, folklore, rituals, community art practices, resource management by different cultures and their wisdom practices among other things. Under its *Lok Parampara* programme, IGNCA has undertaken major research on living traditions of *Mahabharata* and *Ramayana*. There are 18 forms of *Ramkatha* tradition in India. There are special regional projects that dig out the traditions of



**“The general public has not been aware of the rich cultural resources available at IGNCA and also some very crucial work done by the centre.”**

**Dipali Khanna**  
Member Secretary, IGNCA

different regions in India. For instance, the North East project aims to document the textile traditions of the region, while under the *Kshetra Sampada*, the regional cultures of Kerala and Orissa are being documented this year. A major project is the research, documentation and dissemination of India's rich treasure trove of rock art (pre-historic art). A multidisciplinary project, it currently spans 10 states in the country.

While a lot of precious work had been done by IGNCA before Khanna came on board, the change that she brought in was the way in which these seminal works were opened for public involvement. A multimedia project on the scale of Brhadisvara Temple in Tanjavur which is the result of 20 years of hard work of research by scholars, was completed under the guidance of well known art historian and academic Dr Kapila Vatsyayan. The multimedia DVD

created of Brhadisvara Temple provides an effective base for a more detailed study of the thousand-year-old temple both by scholars and as a package for tourists visiting India. Another recent project on the Ajanta Caves is a two-volume publication, translated into English from the original, written by German scholar Prof Dieter Schlingloff several decades ago. IGNCA has also published an interactive DVD on Ajanta cave paintings, documented in natural light.

The revival of the programme *Bal Jagat* that Khanna describes as “bringing in children into everything we do”, has been one of the most notable initiatives. IGNCA hosted an exhibition of Mughal miniature paintings from British Library, London. A puppet show on Swami Vivekanand has travelled to 100 centres in India and abroad. One of the major highlights is the widely awaited children's book festival, Bookaroo, that shifted its venue to IGNCA in 2013.

The centre has also been spreading its wings across the length and breadth of India to justify its national tag. A component of this wider outreach effort was a 12-lecture series organised at the centre on Buddhist studies, thrown open to the general public and attended by both scholars and students. IGNCA has embraced digitisation on a vast scale. The amount of digitised material available on IGNCA website [www.ignca.gov.in](http://www.ignca.gov.in) is huge. A national cultural audiovisual archive, approved under the 12th Five Year Plan has been entrusted to IGNCA. The centre also extends its expertise in technical understanding and preservation of Indian arts and documentation to students through a curriculum module for Delhi University students.

The volume of work accomplished and being carried out by IGNCA is as vast, varied, comprehensive and holistic as only India can be. Even as IGNCA plumbs the depth of India's vast art history to build its treasure trove, the effort can just skim the surface, so huge is the knowledge base in India. The effort thus goes on tirelessly. ■





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# TOURISM UPDATE

MAHABALIPURAM



PHOTOS BY AJAY SOOD (TRAVELURE)

▲ **Rock Art:** Elaborate carvings decorate all the five *Rathas* in Mahabalipuram. A close view of one of them.

◀ **Steady Faith:** Krishna's Butterball is a huge rock that stands in gravity defying stillness, come rain or storm.

▼ **Fierce Sentinel:** A lion carving guarding the precincts of the Shore Temple has withstood the ravages of time in the line of duty.

## Heritage on Beach

A perfect year end getaway—sun, sand, history, culture and much more.

BY **BINITA SINGH**

**I**f in the middle of cold foggy winter a beach holiday beckons tantalisingly, worry not. Just head to Mamallapuram, better known as Mahabalipuram. This ancient seaport town offers much more than a perfect soak in the sun. The beachside city is a curious potpourri of art, culture, history, heritage, architecture, modernity and much else and an archeological treasure trove with its famous group of monuments listed among UNESCO's World Heritage Sites. Yes, Mahabalipuram has much to offer to the world traveller, the reason why it has earned the sobriquet of a tourist town.

The tiny beachside getaway situated at a convenient distance of approximately 60 km from the thriving state capital of Tamil Nadu, Chennai, is just a 45 minutes to one-hour drive down the East Coast Road (ECR). As you cruise along this one-lane well maintained toll road, one of the most scenic coastal



drives in India, the Bay of Bengal plays hide and seek throughout the way. The road has many pit stops as is the wont in any such highway where roadside shacks and shanties come up overnight to cater to every need of the world traveller. Mahabalipuram is the first stop on the 690 km long state highway that connects Chennai with Mahabalipuram, Pondicherry, Chidambaram, Tranquebar, Karikal, Nagore, Nagapattinam, Ramnanathapuram (near Rameshwaram) and Tuticorin. For experiential travellers and inbound tourists, the East Coast Road is one of the highs in



their India trip for the delightful drive it offers. An unfettered view of the deep blue Bay of Bengal on one side and greenery, backwaters, forests, temples, mosques and heritage sites dotting the other side, make it an explorative journey.

A must-visit destination on the India itinerary of foreign tourists, the heritage and beach of Mahabalipuram are now drawing the domestic travellers too. Weekend revellers from the city and the corporate crowd often drive down for a picnic by the shore or just to spend the day on the beach. If you want to avoid the crowds, time your visit for weekdays when the beaches are peaceful and calm. The beach ambience of the seaside heritage destination and the treasure trove of its ancient monuments make Mahabalipuram among the top 10 most visited places by overseas tourists. A visit to India is incomplete unless one has explored the rich past buried in the monuments on Mahabalipuram's shores. If you are holidaying in South India, it makes the perfect last stop on the way back to relax, rewind and rejuvenate, while you explore the wonders hidden beneath its rocks.

The best time to visit Mahabalipuram is now—December until March. The weather is dry and cool, the rest of India is freezing and of course it is that time of the year again! You need to take a break, shore up your strengths, reflect on the year gone by, perhaps make a few resolutions for the New Year and in general, be merry! If you want to enjoy some solitude, go alone backpacking, Mamallapuram has a thriving backpacker scene. If it is time with the family that you seek, then again, you can take your pick from a number of hotels and beach resorts that suit all budgets. The best way to explore this seaside paradise is of course on foot. However, you can always rent a bicycle to save time. Whatever your choice, the first thing that strikes you in Mamallapuram is the majesty of the rocks, the pristine sands, the clear blue sky, the deep blue ocean and the vast stillness of space. And all that within the small periphery of Mahabalipuram! Take a 360 degree view. Yes, it's true. As far as your eye can see it's a clear view of unobstructed skyline and Bay of Bengal. No manmade creation sullies the view.

A lone lighthouse sits sentinel quietly on a hill watching over the city and its ancient temples. A great vantage point offering unobstructed view of the vast vista across the sea, head out here for the first look of the ocean paradise and file it forever into your memory book and cameras. Your curiosity must be aroused by now at the sight

**FOUR KEY HIGHLIGHTS**

**1. CAVE OF HISTORY**



Varaha or Vishnu Cave, part of the UNESCO World Heritage Site in Mahabalipuram, is a delightful pictorial story.

**2. GUIDING LIGHT**



Built in 1900, this lighthouse, promoted under the Lighthouse Tourism concept, is famous for its views.

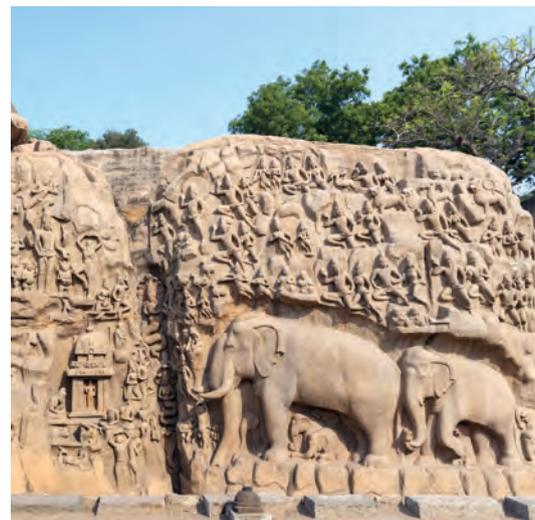
**3. SEA & SALT**



In sunlight they gleam like jewels and in moonlight they take on an ethereal aura, the salt pans beckon!

**4. TEMPLE DECOR**

The minutely carved designs on the Five Rathas mesmerise visitors and artists alike.



**Penitent Beauty:** In a giant rock canvas, about 20 feet high and 80 feet long, is carved the story of Arjuna's penance.

of the many rock structures around and some submerged ones that became visible to the human eye post the 2004 tsunami. Our exploration of Mahabalipuram must start with the heritage sculptures, the world renowned 7th to 9th century stone carvings. An exploration of Mahabalipuram is a journey back in time. It is a lesson in history and architecture, culture and art and their confluence. The second capital of the Pallava kings of Kanchipuram, the boulder strewn landscape of this tiny seaside village is unique for the rock cut art on its pristine miles long beach. The sculptures depict day to day life and can be divided into four categories—bas-relief, structured temples, manmade caves and *Rathas* (chariots carved from single boulders). Today, the once famous harbour town of the Pallava kings is known more for their architectural acumen manifest in its rock sanctuaries and temple carvings.

Learn about the history of the Pallavas that had spread its influence far down to Cambodia, Annam, Java, etc. and the history of South East Asia, where the influence of Pallava sculptures is found. The famous wrestler King Narasimhavarman I Mamalla, after whom the port town was named Mamallapuram and his successor Rajasimhavarman built the beautiful temples during their reign. The historical findings regarding the period are fascinating with different historians presenting a different theory of influences that shaped Mahabalipuram's heritage. Whatever the historical perspective, the fact remains that today this heritage town presents itself as an intriguing destination for each and every visitor. The Five *Rathas* are by far the most



► **Delight House:** The old lighthouse built in the 7th century is a masterpiece.



▲ **On the Seashore:** Literally, stands Shore Temple, a masterful architectural wonder and the UNESCO World Heritage Site, that has stood a silent witness to the shifting sands of time.

famous of the many rock arts here. Imposing in their grandeur, intriguing in their concept and amazing in their art, the *rathas* defy disbelief. Representing the five Pandava brothers and their wife Draupadi from the epic, *The Mahabharata*, all are carved from a single boulder. Explore the intricate carvings and the mythological tales that add intrigue to the many mysterious characters depicted. Marvel at the artisans' skills from an era eons ago and wonder at the purpose of these grandiose pieces of art. Can any of our contemporary installations stand comparison with these larger than life art pieces?

Head to Arjuna's Penance next. It is like *Amar Chitra Katha*, the famous children's classic comics, illustrated in rock art. The story of Arjuna's penance or as some historians believe, Bhaghirathi's penance to bring river Ganges to earth is depicted in bas relief. It is like watching a silent movie or still art. The surrounding scenes present everyday life depictive of the times. This is what makes Mahabalipuram rock art so unique. It is resonant of the cultural influences that it has absorbed over the times and disseminates it through the various sculptures that depict that time. The *mandapas* or the rock sanctuaries are pillared halls on the main hill in Mahabalipuram. The 10 pavilions were designed as temples with a sanctum and house exquisite sculptures of gods and goddesses. Explore them all, especially the *mandapas* of Varaha (Vishnu), the unfinished *mandapa* of the five Pandavas, the *mandapa* of Krishna and the *mandapa* of Mahishasuramardini. In the latter, scenes from the *Puranas* decorate the walls and one of the finest sculptures of Goddess Durga is found here. Above it are the ruins of the 8th-century Olakkannesvara Temple; from this vantage point you can get a spectacular view of Mamallapuram. Do also take a look at the gravity defying Krishna's Butterball. Dare to sit under its shade if you may! Shore Temple, by far is the most famous heritage structure of Mahabalipuram. Perched atop a rocky outpost with the deep blue ocean as its natural backdrop, it is an architectural masterpiece representing the highest peak of the Pallavas' artistry. Built in granite rock, the work on the temple had begun in the 8th century and has stood a mute testimony to passing ages for



▲ **King's Chariot:** Relics of sublime beauty crafted by man.

the more than 1,400 years. Unlike the *rathas* and the *mandapas*, the Shore Temple is the earliest example of a stone built temple and has not been carved out of rock. The design of the temple is such that it catches the first rays of the rising sun as the main shrine faces the east, but at night it illuminates the dark waters behind it with dazzling lights. It is for this unusual architecture that it has been famously called a landmark by day and a beacon by night. Another unusual fact about the Shore Temple is that it is the abode of both Lord Shiva and Lord Vishnu, a rare occurrence in temple architecture. The amount of history, culture and architecture that Mahabalipuram packs does whip up appetites of another kind. You can try authentic seafood cuisine at some of the great cafes here. For variety, visit the Crocodile Bank and immerse in the wildlife ambience of breeding birds and Olive Ridely sea turtles or drive down to Vallam Reserve Forest a little distance from Chengalpattu, where there are birds, beasts, reptiles and amphibians. You can go boating at Muttukadu Lake, a scenic spot near Mahabalipuram or go shopping for handicrafts directly from artisans at Dakshinachitra, a craft village on East Coast Road.

PS: Time permitting, do take a trip down to Kanchipuram. It forms a heritage triangle with Chennai and Mahabalipuram and you may just find the perfect Kanchipuram silk sari—the famed heirloom collection—right from the weavers! ■





# AN INCREDIBLE DESTINATION

Indian tourism and hospitality sector to touch US\$ 419 billion by 2022.



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# RURAL UPDATE

## A Hospital Chain that Cares

Vaatsalya is taking affordable healthcare to India's tiered towns and distant rural countryside with astute planning and foresight. **BY SANGITA THAKUR VARMA**



It's been a decade long fruitful journey of caring for patients in far flung remote areas for Vaatsalya. Founded in 2004 by two young medical professionals—Dr Ashwin Naik and Dr Virendra Hiremath—as a 20-bed affordable hospital in Gadag and a polyclinic in Hubli in northern Karnataka, the healthcare chain grew rapidly spreading its services umbrella to cover Hubli, Gadag, Hassan, Mysore, Shimoga, Tarikere, Pandavapur and Chikmangalur in Karnataka and Narasannapeta in Andhra Pradesh. With plans to expand to two other states—Maharashtra and Tamil Nadu—today it has a network of 11 hospitals in Karnataka and six in Andhra Pradesh. Over the past five years, Vaatsalya hospitals, with an average bed size of 50-60 beds, are in operation in various districts offering affordable low-cost healthcare to patients in the remote small towns. In

total, the hospital has a strength of more than 1,200 beds under its management.

The foundation of Vaatsalya Healthcare was laid much before 2004 though, in a government medical college in Karnataka, where the founders were medical students. “We both came from small towns in Karnataka and were aware of the acute health needs of a small town population. Another binding factor was that both of us, after completing our medical course, wished to do something different,” says Dr Ashwin Nayak, Co-Founder, Vaatsalya. The hospital chain is certainly a unique pioneering endeavour in the field of healthcare. It was for the first time in the country that someone had thought of making quality private healthcare not just affordable but also accessible to the hinterlands—the semi urban Tier II and III population, in addition to the rural countryside resi-



**Dr Ashwin Nayak** is the Co-Founder of Vaatsalya and the recipient of various recognitions including a Young Global Leader (YGL) 2012 by World Economic Forum, Young Leader by Asia Society's Asia 21 in 2011, Senior Ashoka Fellow in 2010, finalist in India Social Entrepreneur of the Year Award 2010 by Schwab Foundation and Ted India fellow 2009.

dents. However, Vaatsalya did not happen immediately. After medical college while Dr Hiremath went on to specialise in hospital administration, Dr Nayak chose to specialise in Genome. It was after some years that the two friends met again and upon deliberation realised that their dream venture was a viable business opportunity. The demand perspective was encouraging. “However, we had some misgivings on the supply side score and the feasibility of in-store houses in small towns,” reveals Dr Nayak.

But the risks did not deter the duo as some other factors at the time pointed to the ripening opportunity. As Dr Nayak explains, “The focus of health service providers was on urban areas and across India, the health industry was evolving with a renewed interest in private healthcare. The second interesting development was that doctors passing from medical colleges who had already experienced working





**Loving Care:** Vaatsalya model of no-frills hospital services with a focus on affordable private healthcare to the population residing in rural and semi urban countryside is replicable and scalable. It helps bridge the gap in primary healthcare.



in private hospitals now wanted to spread out to other places, especially the younger doctors, as the urban market was becoming saturated. Our market research pointed that it was a good way to attract this crop to smaller towns.” These young medicos were eager to practice in non-urban areas provided the hospital could create an environment for unhindered and independent practice, and had the necessary expert assistance from nurses and administrative staff. This was the first category of doctors that came to Vaatsalya’s fold.

Based on these findings, the hospital’s initial focus was on providing independence to doctors and recruiting and training nurses and staff to assist them professionally. Additionally, its revenue sharing model with most doctors allowed the latter to generate earnings comparable to big city practices. This model has helped Vaatsalya keep the attrition rate

extremely low. “These doctors are now proponents of the Vaatsalya model and actively help in recruitment of their colleagues to our fold,” reveals Dr Nayak, adding, “Bright young city doctors are willing to move to smaller towns for career enhancement opportunities and more challenging roles.”

The second category of doctors that joined Vaatsalya is native to these small towns who find it difficult to establish lucrative practices on their own. They benefit from the brand association and as Vaatsalya allows leading doctors to focus on their practice and augment their income by relieving them from hospital administration responsibilities, it is a win-win model for both.

“Thirdly, we realised that medical insurance policies are set to grow and there was an opportunity for urbanised players to go into small towns. These were two-three micro elements which helped us

on the business side,” reveals Dr Nayak. The personal motivation came from the fact that both the founders had parents and family in small towns and realised the urgent need for quality healthcare. “That was the large and broad hypothesis and the intention was to find a way to bridge the gap of access in smaller towns,” Dr Nayak explains. The good doctor had grown up in various parts of the country, a major part spent in Faridabad where he completed his high school. He went on to attend the Karnataka Medical College in Hubli. Dr Heeramath joined the medical college a little later.

Realising the lacunae in services, Vaatsalya focussed on primary healthcare including mother and child care, services in gynaecology, paediatrics, general medicine and general surgery, as these cover about 80 per cent of the healthcare needs of the community. Additionally, the healthcare chain



would provide specialised care such as ICU (Intensive Care Unit), NICU (Neonatal Intensive Care Unit) and dialysis services.

In 2004, the small single hospital and polyclinic were generating a revenue of less than ₹1 lakh (<US\$ 2,000) a month. Today, the revenue has crossed ₹12 million (US\$ 250,000) registering a 100-fold growth in five years. Along the way, Vaatsalya has been recognised with several national and international awards, the latest being the VCCircle Healthcare Awards 2014 for the Most Innovative Delivery/Product/Services Entity. In October this year, it raised an undisclosed amount in another round of funding by its existing investors Aavishkaar India II and Bamboo Finance. Earlier, between 2008 and 2011, it had raised US\$ 16 million in venture capital and private equity.

A lot of foresight and astute planning has gone into building the chain. In the initial phase, in order to minimise the capex, the hospital adopted the lease model. The objective of providing quality care at a fraction of the cost in urban areas necessitated an altogether new business model. The duo realised that the hospital business model in urban areas was not applicable because of the high initial investments and the ongoing operational costs. In addition, the urban model is not scalable quickly because each hospital project had a lead time of several years.

As a startup with limited financial resources it leased facilities, kept it spartan but clean and allowed capital investments into medical facilities only when justified by proper project planning. Dr Nayak explains it as the “no-frills” approach to setting up and operating hospitals that drastically reduced the initial outlay for a new hospital, enabled faster



expansion with limited resources and reduced patient charges as well. The stringent and innovative approach brought Vaatsalya to the notice of the world. In April 2011, it was featured as a case study by Harvard Business Publishing for its value based delivery model.

The variation in the basic model is determined according to several factors, including existing healthcare landscape, population needs and availability of physicians. To ensure capacity utilisation and ultimately profitability, it is important for the hospital chain to offer a wide range of services because people in smaller towns prefer a complete spectrum of services at one place. For the hospital to be successful, it had to attract patients from the very beginning. Vaatsalya’s marketing strategy is geared to create awareness about the brand even before its hospital is operational in a town. Several patient-friendly policies have been created and the front office staff is trained to manage the patients effectively. Vaatsalya has put in place a stringent

**Vaatsalya** is the winner of the BiD Challenge 2007 for the best business in development in India, LRAMP Award for Innovation 2008, Sankalp Award for Social Enterprise 2009, Frost & Sullivan Healthcare Excellence Award 2010 for its innovative business model. It has been ranked No.5 in its list of 25 fast growing companies in India by All World Network and has been profiled by *Forbes* as one of the five hot startups in India to watch in 2011.

policy of zero tolerance towards any type of kickbacks either in cash or kind to doctors. Instead of the referral fee to doctors, Vaatsalya negotiates with the hospital for a special discounted fee, which directly benefits the patients.

Phase II, which started sometime around 2011, saw the hospital passing all building and infrastructure set-up costs to landlords. “We prefer acquiring existing practices of doctors, as this provides ready access to infrastructure, doctors, customers and revenues from day zero,” explains Nayak. Typically, the in-patient revenues contribute ~60 per cent to the total revenues of Vaatsalya. Each hospital has a footfall ramp up plan which is backed by marketing initiatives in the areas of retail sales, corporate tie-ups and doctor engagement. The hospital also focusses on maximising utilisation through initiatives like step down ICUs. In this phase, the hospital chain also started operating fully owned 24x7 pharmacies for patients as well as outside cus-



**A Winning Proposition:** Vaatsalya focusses on creating a conducive, hassle free and thoroughly professional environment and has a profit sharing model that motivates doctors and medical professionals to be associated with it.

tomers, this being a high margin segment. In the current phase, Vaatsalya is focussing on managing operational costs like revenue sharing arrangements with key doctors with a minimum guarantee, centralised bulk procurement and outsourced diagnostics and lab services to local partners.

As of now, gynaecology, pediatrics and medicine led practices have witnessed most traction, while surgery led practices have proved least scalable. “In phase II we focussed on filling up the entire PPGS (patient participation groups) offering in all our existing units. We introduced orthopedics, diabetes and nephrology as add-on services on selective basis as per local requirements. In addition ICUs (Intensive Care Units), NICUs (Neonatal ICUs), PICUs (Pediatric Intensive Care Units) and operation theatres were added to all units. In this phase we also brought in basic laboratory and diagnostic facilities,” Dr Nayak informs. At the moment, Vaatsalya’s focus is on specialties doing well and growing them.

Another important aspect of Vaatsalya Healthcare is its emphasis on information technology. “We have a robust IT infrastructure in place. For instance, our HIMS (Hospital Incident Management System) is a web based application. Data is entered into the billing system and is accessible in real time from anywhere in the world. We conduct almost all our training over video conferencing (VC) from the head office and also have team meetings over VC. Digitisation of Medical Records Department (MRD) is a pipeline plan,” says Dr Nayak. Technology has also helped the hospital overcome the problems of distance. In extremely remote areas where the hospital finds it difficult to hire or station doctors, it uses telemedicine through video technology that allows its doctors to provide real time counselling and treatment.

Talking about the replicability of the Vaatsalya model, Dr Nayak says, “What we have done is provide for a niche market which essentially comprises patients

travelling 50-60 km to next big towns. The demand is there but whether we will be able to replicate, or replicate with partnerships indirectly, is wide open.” However, the model is being adopted across the country. Vaatsalya too has a pan India opportunity, says the doctor, and he is confident that in three to four years it will have a presence in several states of southern India. “After that, in the future, we can think of expanding outside the southern states,” he adds.

In parting, Dr Nayak concludes, healthcare is a huge challenge for about 70-75 per cent of population who cannot afford out-of-pocket expenses. “While we will be bridging some of the gaps with Vaatsalya, I don’t think enterprises like ours will be able to provide to everybody. The solution lies in developing a combination of private players (who work at the top end), social enterprises like ours (in the middle) and government (at the bottom).” ■

*(Based on interview & secondary research)*



“But to fully discount the peculiarities of a clan established by generations...would be arrogant and ill-conceived.”

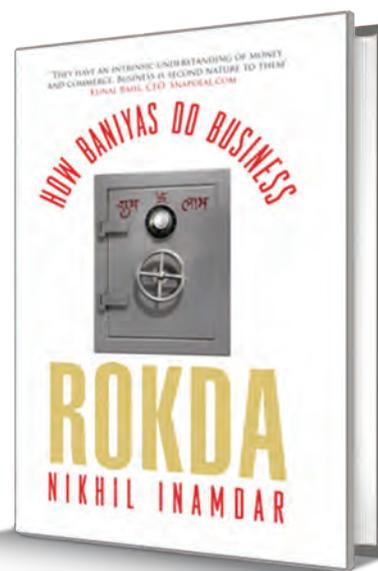


Author: Nikhil Inamdar

## BOOKSHELF

# A Class Apart

A celebration of the indomitable spirit of Indian entrepreneurship and ingenuity. **BY SANGITA THAKUR VARMA**



**CAN** a caste be genetically wired to carry out a profession and that too better than others? In India, where the whole theory of caste system is based on a classification by profession, Nikhil Inamdar's book *Rokda, How Baniyas Do Business*, is an interesting inversion of the theory. The book tries to decode the genetic sequencing of five of India's most successful businesses and their creators, who belong to the *Baniya* community, through real close and personal encounters. Is there a particular way in which this caste of blue-blooded entrepreneur class does business? Is there some secret to their success passed on down the generations?

*Baniyas* for one have been traditionally associated with money in India. The *Introduction* to the book is in fact an introduction to class as perceived in the Indian society down the ages. They have evoked an admiration which is often tinged with a satirical negative connotation for the class and the work they represent, "Oh, he is a *Baniya*." This partly comes from the portrayal of the *Baniya*

class as greedy and conniving usurers in Indian films. But *Baniya* is not a stereotype and the book does much to break such preconceived notions while at the same time reinforcing the intrinsic DNA of a *Baniya*—money making and the appetite for risk taking in order to make money.

Firstly, despite the title, the book is not a typical business book. It has guns, goons and roses. Yes! There is *Bhai* from Dubai, underworld don in the Indian parlance, an intercaste marriage amid police protection, the Mumbai floods that almost reduced the maximum city to a floating rubble and much more that make the opening story of *Rokda* straight out of a Bollywood thriller—tightly scripted and directed. It's an interesting read to say the least. Amid this blood curdling backdrop is Neeraj Gupta, the undeterred *Baniya* building his taxi empire. Neeraj, for the uninformed, is the pioneer of India's radio cab service in 2006, the man who founded Meru Cabs. Inamdar's account of Gupta is very personal and evoca-

### ABOUT THE AUTHOR

**Nikhil Inamdar** is a business journalist and has worked with various prestigious news organisations including *Times Now*, *NDTV* and *Bloomberg TV India*, as a news anchor. He has reported on sectors like realty and infrastructure. Currently, he is a Special Correspondent with *Business Standard*. He has a degree in broadcast journalism and documentary film making from the University of Westminster, UK.

tive. It strikes an emotive chord in the reader. However, what it fails to do is establish the fact whether business is seminal to *Baniyas*. Or was Gupta's father just an exception who proved the rule? Do read the story to find out intriguing details of the family tree.

On the surface, *Emamiwallahs* is a touching story of friendship. But there are layers upon layers in this rendition of the making of cosmetic company Emami. The class attributes of *Baniyas* are more implicitly brought out here in the tale of the two Radheshayams—the migration of the class to trading towns across India at the time of the British and their subsequent rise as the rich merchant class in the country. Their intrinsic attributes of hard work, sharp intellect, predilection for the commerce stream, the never say die spirit and the ability to learn from adversity, are all brought out in this story. Emami is again a company that was built brick by brick in turbulent times. What is even more inspiring is that the founders had to jump ship

midway as their family responsibilities multiplied to become salaried professionals under the Birlas—also *Baniyas*. However, they continued building their dream business and when they quit their respective jobs after five years, both the Radheshyams were at the top of their career ladder. They now wanted to build their own business more aggressively, which they had all the while tended at night. With the takeover of the sick cosmetics firm Himani, Emami opened a new innings in its own history. Himani is one of the most successful turnaround sagas in Indian corporate history and the launch of Boroplus, the antiseptic cream that put an end to 50 year monopoly of Borolin, is a rare feat. The insider view that Inamdar has brought is revealing. The Radheshyams have shared many personal and professional details. The story is gripping!

Snapdeal is again a story of two friends who chart an aggressive entrepreneurial path. A lot younger than the Radheshyams, what Rohit Bansal and Kunal Bahl have in common with the Radheshyams is the same *Baniya* spirit of enterprise, if we may call it so. Rohit, an IIT, Delhi alum and Kunal, a University of Pennsylvania and Wharton alum, were school friends much like the Emami founders. The story is more of Rohit, his struggles at IIT and subsequent metamorphosis into a *couponwala* and the setting up of Snapdeal. Many startups will find an echo in their struggles as they recount the amusing anecdotes about creating a semblance of a big corporate office in order to attract employees while running an office from a ramshackle semi-legal building in Kirti Nagar, New Delhi. The 23-year-old who quit his first job to set up his own business, is today

## The book tries to decode the genetic sequencing of **five of India's most successful businesses and their creators**, who belong to the *Baniya* community, through real close and personal encounters.

among the trailblazers of Indian e-commerce. There are many lessons to be learnt from this story, but chiefly, how not to let either failure devour or success corrupt.

Think sanitaryware and the brand that we have grown up with in India comes instantly to the mind—Hindware. The name behind this brand is also a famous *Baniya* family—the Somany—*who had built an empire of diversified business interests in post-Independence India. Hindware, a part of that business conglomerate, was built by the visionary R K Somany, one of the Somany scions. The story of Hindware unveils the enterprising Baniya spirit, with the knack of seeing an opportunity in the unlikeliest of places. It is said in India that Baniyas can sell anything, including toilets, what if they be Vitreous China!*

India's trading class, the *Baniya*, has for long not been associated with high learning and has been stereotyped as the *mahajan* (money lender) or the semi-literate businessman clan where studying is considered a criminal waste of time. V K Bansal, the pioneer of classroom coaching and the man who can be credited for creating the million dollar coaching industry in Kota, belongs to a *Baniya* family where education was promoted over

### BOOK EXCERPTS

**“Vinod, when I depart this world, I will leave behind one rusted iron trunk in which there will be two *phati banians* (torn vests), one for you and the other for your younger brother. Be willing to accept this as your sole inheritance or do something meaningful with your life...”**

**Goenka and Agarwal are worthy inheritors of this heritage. But it is their incredible personal journey and the story of their eternal friendship that's stuff of legends. They don't make them like these anymore.**

business. The engineer turned education-entrepreneur's story is that of personal victories. Born into a poor family where values like hard work and uprightness were held sacrosanct, VK's story is full of twists and turns. Inamdar takes us through the growing up years of VK at a fast pace till the hero is almost undone by his hamartia. But this is nothing compared to what lies in store for VK later in life. An incurable debilitating disease threatens to cut short his budding career, his new marriage and his life.

VK's struggles during this period, branching out into tuitions and his finally foraying into full scale classroom coaching, competition coming in, his heart attack, and losing business which he admits to hubris; make one inspiring read much like a Greek tragedy. However unlike a Greek tragedy, with the next generation coming in, the Bansals are again back in the reckoning in Kota's coaching industry, giving tough competition to pretenders to the throne. Read the book for the insightful stories of individual successes. There are many unknown facets that Inamdar has brought to light about these well known businesses and their founders. Yet, by the end of it you may be asking the question: Is *Rokda* only about how *Baniyas* do business? ■



# BRAND INDIA

What's new@IBEF?



◀ **Stakeholder Engagement:** Rajeev Kher, Secretary, Department of Commerce, Ministry of Commerce & Industry, in a media interaction.



▲ **The Show Begins:** Officials from the Department of Commerce, Government of India, Embassy of India in France, Pharmexcil and IBEF at the lamp lighting ceremony.



◀ **Industry Interface:** Meeting of officials from the Department of Commerce and IBEF with senior company officials at the Ranbaxy lounge.



◀ **Responsible Healthcare at Work:** View of the Brand India Pharma Pavilion developed by IBEF at CPhI Worldwide, Paris 2014.



▲ **A League Apart:** Brand India Pharma showcase exemplifying India's position in the global pharmaceutical industry.

## Brand Pharma Campaign at CPhI Worldwide in Paris

India Brand Equity Foundation (IBEF) led an aggressive branding showcase for the Indian pharmaceutical industry at CPhI Worldwide 2014 at Paris, France from October 7–9, 2014. This is the third consecutive presence of the campaign at CPhI Worldwide, one of the most prestigious pharmaceutical events across the globe. The *Brand India Pharma* also made an impacting presence at the *Pre-Connect Congress* that took place on October 6, 2014.

IBEF coordinated meetings of the high level Indian delegation with the global pharmaceutical media and Indian companies during the three days of the event. India's positioning of a *Responsible Healthcare Provider* has found resonance amongst stakeholders across the board. The focussed activities undertaken by IBEF as part of the *Brand India Pharma* campaign this year at CPhI Worldwide are expected to increase awareness about the Indian pharmaceutical industry amongst the global stakeholders.



The screenshot shows the India Knowledge Centre website. At the top, there is a navigation bar with links for 'India at a Glance', 'Resources', 'Industry', 'Exports', 'States', 'News', 'Events', 'Brand India', and 'About Us'. A search bar is also present. The main content area features a large banner for 'THE INDIA SHOW' in Colombo, Sri Lanka, from August 3-5, 2012. Below this, there are sections for 'INDIA POSITIVE' with headlines like 'CRO market set to increase by two times to \$1 billion by 2016' and 'Govt gives approval to Mars Orbiter Mission'. There is also a section for 'CONVERSATIONS ON INDIA' with a sub-headline 'Brand India Engineering: Set for a giant leap'. The bottom part of the page includes 'MARKET UPDATES' and 'THE INDIA MARKET OPPORTUNITY' with various articles and a 'CHOOSE SECTOR' dropdown menu.

This screenshot shows a news article on the website. The article is titled 'INVEST NOW' and is dated August 15, 2012. It discusses the India Brand Equity Foundation's (IBEF) findings on India's growth, mentioning that the GDP is expected to rise to 8.3% in 2012. The article also mentions that the IBEF has been the 'Investment Distribution in Asia' award winner for the 11th year. The article is signed by Aparna Dutt Sharma, CEO of IBEF. There are also 'FOLLOW US' and 'POLICY CORPUS' sections on the right side of the article.

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# MANGALYAAN MEETS MARS

With the success of ISRO's Mars Orbiter Mission, India has become the first country globally to have reached the Red Planet in the first attempt itself.

