

# ANALYTIQ<sup>UE</sup>

Vol. XIII, No. 2,  
April - June, 2017

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## Bombay Chamber of Commerce & Industry

The Bombay Chamber of Commerce and Industry is India's premier Chamber of Commerce and Industry situated in Mumbai, the industrial, financial and commercial capital of India. Established in 1836, it is one of the oldest Chambers in the country and has a long and illustrious history of continuous service to trade and industry.

The Chamber can boast not only of its longevity but also of its impeccable lineage. With more than 4000 prime companies as its members, the Chamber represents the cream of Indian Industry, Commerce and Services. While the name 'Bombay Chamber' conjures images of an organization representing exclusively a city-based membership, in reality it represents a wide spectrum of highly reputed and professionally run companies which are based in the city of Mumbai, but whose manufacturing facilities and commercial influence spread not only all over India but also internationally.

The Chamber uniquely represents large and medium sized Corporations, Banking and Financial Institutions, professional Consulting Companies and a large number of Multinationals. It comes as no surprise that today the Bombay Chamber's membership represents as much as a third of the country's GDP in the manufacturing and service sectors.

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## *From the Editor's Desk*

As we go to press with the June issue of this publication, the slowdown of economic activity, in India, that set in from Q1 of 2016-17 and became pronounced in the second half of the year appears to have extended into the first half of 2017-18. Looking ahead, some improvement in services may counterbalance the persisting weakness in industrial production. Inflation underwent a dramatic decline, reaching a historic low in June, but as the prints for July and August portend, a gradually rising trajectory may take hold over the rest of 2017-18. Alongside these developments, there has been an improvement in external viability; the foreign exchange reserves were around 11.5 months of imports in September 2017 and over 4 times short-term external debt.

But still the overall picture is yet to be an encouraging one. Firstly, the corporate sector, known as the engine of growth during the boom period, is now mired in debt. Secondly, the banks and the industries are overleveraged and since the industries are overleveraged no one is giving money to anybody so that's the problem. Thirdly, the Capacity Utilization at this point of time is around 74% which is much lower than what it used to be in the previous years. And the fourth one is the overall demand in the economy is not picking up.

It is in this backdrop, a bold structural transformation of the business and investment climate is need of the hour.

In this issue we have shared with you some emerging issues which are expected to impact business and investment front of our domestic economy. Please do write us your comments, views and other.

Best Regards,

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Printed at Uchitha Graphic Printers Pvt. Ltd.

# Is FDI the New Engine of Growth?

R. Nagaraj\*

The official discussion paper (DP), Industrial Policy–2017, ([goo.gl/jEPs6u](http://goo.gl/jEPs6u)) is a welcome effort. That said, while it sets down a laundry list of known constraints, it ignores serious analyses of poor industrial performance. Pedantically discussing competitiveness, the policy paper makes very little reference to trends in global trade, or inadequate domestic industrial demand, falling capacity utilization or negative credit growth (“Economic Reforms And Manufacturing Sector” by R. Nagaraj, Economic And Political Weekly, 14 January 2017).

There is an exception, however. Flagging the boom in foreign direct investment (FDI) inflows, the paper claims it as a badge of success for the official policy. The report says, “Total FDI inflow was \$156.53 billion since April 2014 (\$45.15 billion in 2014-15, \$55.56 billion in 2015-16, and \$60.08 billion in 2016-17). Highest ever annual inflow (\$60.08 billion) was received in 2016-17. FDI equity inflows increased by 52% during 2014-16 and 62% since the launch of Make In India. India is now ranked amongst top 3 FDI destinations (World Investment Report 2016, Unctad) and ninth in the FDI Confidence Index in 2016, up two places from 2015 (AT Kearney)”.

Laudable as that may be, what did the FDI inflow do for the economy? Did it augment industrial output and investment growth (meeting Make In India goals) as expected in theory? The official paper claims it has. But has it really?

In principle, FDI—as against foreign portfolio investment which flows into the secondary capital market—brings in long-term fixed investments, technology and managerial expertise, together with foreign firms’ managerial control. FDI in green field investment is for fresh capital formation, and in brown field investment for acquiring existing enterprises with the expectation of improving the firm’s productivity and profits.

In practice, however, this may be different. Currently, FDI does not come from leading global producers of goods and services, but from shadow banking entities such as private equity (PE) funds. In 2014-15, PE accounted for 60% of total foreign inflows, and the top three recipients were Flipkart, Paytm and Snapdeal (Bain & Co.’s “India Private Equity Report 2016”). These funds are used to finance retail trade of mostly imported consumer goods to expand their market shares, in order

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to boost the firm's market valuations. Since PE investments are highly leveraged (high debt-equity ratios), rising markets valuations help them reap disproportionate gains when they make their exit.

PE firms do not commit to fresh capital formation or invest in technology, as expected of FDI. India being a bright spot in world economy lately, global retailers such as Amazon are rushing here to build their brand's value and acquire market share using abundant low-cost international capital. Could such financing of retail trade with short time horizons constitute the (new) engine of India's industrial growth and employment generation? I wonder.

This is why despite rising FDI inflows, domestic capital formation rate, or industrial capacity utilization, have declined secularly. What is going on, I would contend, is foreign capital financed import-led consumption growth, not augmenting domestic output to meet Make In India goals. Therefore, the current growth pattern would only contribute to economic fragility under free capital flows, as the social costs of servicing the external capital in rupee terms could be significantly high in the longer run.

The official paper also pins hope on outward FDI to strengthen domestic industrial and services capabilities. Since 2000, the outflow has risen remarkably, often seen as the coming of age of domestic enterprises, acquiring factories and firms (and global brands) mostly in advanced economies, best illustrated by Tata's acquisition of

luxury car maker, Jaguar Land Rover. After a brief dip during the financial crisis, the outflows have maintained momentum. But Indian firms are no longer chasing foreign acquisitions; if anything, they are licking the wounds of hasty misadventures over the past decade—for instance, the Videocon group.

So where is the outflow going? Apparently, India is being used as a conduit for routing international capital for tax arbitrage. Olivier Blanchard and Julien Acalin's research paper (What Does Measured FDI Actually Measure, Peterson Institute for International Economics, October 2016) offers an insightful answer. It shows that inward and outward FDI flows across emerging market economies are highly correlated, responding to the US policy rate. India ranks sixth in descending order among 25 emerging market economies (far higher than China). The study's sharp conclusions seem instructive: "...'measured' FDI gross flows are quite different from true flows and may reflect flows through rather than to the country, with stops due in part to (legal) tax optimization. This must be a warning to both researchers and policy makers."

Put simply, inward and outward FDI flows apparently represent channelling of global capital via India to take advantage of tax concessions (called "treaty shopping"). Hence such short-term foreign capital movements in and out of the country may contribute little to augment domestic capability. If the findings are correct, then there is

a need to re-examine recent FDI's true contribution.

Subject to closer verification, if the foregoing arguments and evidence are valid, then the recent FDI flows have contributed little by way of augmenting domestic capabilities, output and employment growth. Inward FDI, increasingly from PE funds, has largely financed e-commerce firms, driving import-led consumption boom.

Outward FDI, instead of enabling domestic enterprises to access external markets and technology, has instead helped international capital to take advantage of India's tax treaties to optimize tax burden of global firms.

If the proposed industrial policy is serious about realizing the vision of Make In India, it needs to look elsewhere, not at FDI.



# H1B Visa: A Game Changer

*Dr Sumana Chaudhuri\**

## Connecting the dots

The H1B Visa program of the United States government is the country's largest guest worker visa program, as defined in its scale and scope, both in terms of its strategic significance and complexities. In its simplest point of reference, H1B is designed to provide US economy a resource pool from niche areas in STEM fields, including healthcare and the services sector, where US talent or skillsets is not usually forthcoming. However, in April 2017, the current US Presidential decree has put the H1B Visa program in a tight spot. The guideline laid down by President Donald Trump "Buy American, Hire American" urges state and federal governments to critically examine the utilitarian motive of the H1B Visa program and in the process ensure manufacturing competitiveness of US goods and services, whilst protecting the interests of the US workers, who are potentially displaced or at an imminent threat at the onslaught of outsourcing US businesses to more economically favorable locations.

This note serves to look at the alleged dispute pertaining to the displacement of US workers in the United States. The major allegation levelled against American outsourcing companies is that they are taking advantage of the Visa program and utilizing the same to recruit expatriate workers at the

fraction of the cost of typical US wage rate, thus rendering Americans jobless, in certain areas of low skill requirement of mundane repetitive technology jobs. The more intense speculation and probing by current US administration however is to assess whether the H1B Visa program in reality improves access for US companies to niche areas of talent, or it just simply helps them cut corners and reduce costs. There is an interesting interplay of wage economics which works at this level. The regulatory governance of Indian IT companies or third party vendors who does supply "IT workforce" often are not concerned about the ethical decision of fairness of wage, they are more enticed by the fairness of the deal, which makes Indian labor cost competitive. When there is already an abundance of supply of IT workers in India, thanks to the sudden spurt of engineering colleges in India, the bargaining powers of the workers is significantly reduced as supply demand gap widens. This in turn lowers down the wage rate further and there is no apparent reason for IT companies in US for an upward revision of the wage rate. According to Goldman Sachs, H1B Visa holders occupy merely 0.6% – 0.7% of the overall US jobs. And there is a great advantage for US technology giants like Amazon or Facebook, because they have an abundance of talent at their disposal, who in turns fuels the US economic

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engine. There are always gains from this “trade” as United States and India both have a win – win situation in the whole process. The Center for Global Development (CGD), USA, in their report, “*The IT Boom and Other Unintended Consequences of Chasing the American Dream.*” The report highlights that the relationship between migration and the outsourcing of IT production to India since the early 2000s, has indeed made US workers on average, better off by about \$431 million or \$1,345 per additional migrant in 2010 because of the H-1B programme. Also the overall losses of the “displaced” American workers is more than outweighed by the combined net gains of India and United States. The combined incomes of the US and India both rise under the H-1B programme by about USD 17.3 billion or 0.36 per cent. And total IT output from both nations rose steadily under the H-1B regime by about 0.45 per cent in 2010. This study also established that a 1 per cent decrease in price for US IT products and 7.4 per cent fall in Indian IT products (Khanna and Morales, 2017).

The dots are almost connected. Well almost. A little subterranean analysis reveals a pattern of underlying interacting state, social, political and technological variables with deep lying feedback and feed forward paths. In spite the fact that there are gains to trade, particularly for high skilled immigration for Indian workers to United States, it becomes imperative to take a look at the Trumponomics governing the latest debate on H1B

Visa program and its impact for Indian IT sector.

This article, lead through the recent debacle arising out of the H1B Visa fiasco in USA, tries to cross – examine the issue of *Trumponomics* driven US Immigration policies and India’s position from foreign relations policy as pursued by the current US government.

### **The Genesis of H1B Visa**

*America has never been united by blood or birth or soil. We are bound by ideals that move us beyond our backgrounds, lift us above our interests and teach us what it means to be citizens. Every child must be taught these principles. Every citizen must uphold them. And every immigrant, by embracing these ideals, makes our country more, not less, American.* (George W. Bush, Former President, USA, January 20, 2001).

Every year the US Citizenship and Immigration Services (USCIS) issues around 85,000 H1B visas, most of which are taken up by employees of major Indian tech firms. Aguiar and Walmsley (2014), using a global recursive dynamic model investigated the long run implications of US Immigration policy. Their research evinced that a permanent increase in the number of visas promoted economic growth in the U.S., while enhanced border control by the U.S. has a small negative effect due to the relative size of the labor market in the U.S. The extant working visa policy as pursued till the end of Obama administration did offer a mechanism for supporting U.S. short and long-term economic growth, benefitting both US



and suppliers of labour demand pool market like India.

It is pertinent to take a look at the genesis of the H1B Visa program from the historical database.

The Wikipedia defines the H-1B Visa as “*a non-immigrant visa in the United States under the Immigration and Nationality Act, section 101(a) (17) (H). It allows U.S. employers to temporarily employ foreign workers in specialty occupations*” (Wikipedia, 2017). The earliest reference to the permanent workers moving to United States has been made in the Steerage Act of 1819, which established the official collection of immigrant arrival data and was the first Federal law to distinguish permanent immigrants from alien visitors not intending to stay in the United States. The numbers of permanent and temporary visitors was counted together as one sum. Since then, The Passenger Act of 1855, The Act to Encourage Immigration Law 1864, The National Labor Union (NLU) 1868, Alien Contract Act of 1885, The Immigration Act of 1917, The Immigration Act of 1924 were introduced to primarily control the bargaining power of the non – immigrant workers as well as ensuring that nonimmigrant aliens be admitted for a prescribed period of time and under such conditions, including bonding where deemed necessary, as would guarantee departure at the expiration of the prescribed time or upon failure to maintain the status under which admitted.

However, the true origin of the H – 1

Visa program probably begins with the Immigration and Nationality Act of 1952, which established the H-1 program, and allowed the US Attorney General “after consultation with appropriate agencies of the Government” to import needed foreign workers (Martin, 1999). The Alien Contract Act of 1885 law and all its amendments were thus repealed.

This law set a precedent for the admission of skill-based temporary workers and was later used as a model visa program for H-1B. Foreign workers were required to return to their home countries if job for which the visa was issued ceases to exist, or if the visa expired. The H-1 program was mandated to be temporary in nature.

Former US President George H.W. Bush’s signing of the “Immigration Reform and Control Act of 1990” is often considered the day H-1B was born. Under the 1990 Act Visas for employment-based immigrants rose to 140,000 from the 58,000 cap established in the Immigration and Nationality Act Amendments of 1976. H-1B became a dual-intent visa, which allowed the foreign worker to remain in the U.S. while applying for permanent residency (Green Card).

### Decoding the New H-1B Visa Bill

The basic tenet of a welfare state stems from the fact that government encourages a level of insularity for its citizens and companies that helps them to grow organically within the geographic delimitations of the home turf. However, the oversight often leads to a myopic vision. The short – term

measures to safeguard the interests of a section of the society does more harm than good in the long run. The world economic order is designed to maintain homeostasis in anticipation of any randomness in the system. The beauty of the global economic system to maintain and monitor its dynamic, self – monitoring equilibrium can lose its fragile balance, if there is any intervening force to impose a new order of self – centered interest measures. The higher is the frequency of such measures or greater is the intensity, the more is the fuzziness and randomness of the global economic system.

The major dispute surrounding the controversial newly introduced H – 1B Visa Bill in US is threefold.

One, it proposes a dramatic hike in H – 1B Visa Fee. There is an upward revision of H-1B Visa fees from USD 4000 to USD 7400 per employee excluding the attorney fees, if applicable. Thus H-1B related fees witnessed an increase of more than 40% than the previous year.

Two, the minimum salary of an expatriate should be raised from the 1989 level of \$ 60000=00 per annum to \$ 130000=00 and they should preferably belong to Science, Technology, Engineering and Mathematics (STEM) in high skilled areas with higher academic qualifications.

Three, it also attempts to put curb on outsourcing by US companies to emerging economies, through the re – introduction of “*Keeping American Jobs Act.*” The objective and rationale of the new bill is to regulate the movement

of the expatriate H-1B Visa holders to US in a fashion that they bring innovation in the country. In a recent development, US Senator Chuck Grassley, Chairman of the Senate Judiciary Committee, claimed the number of O visas issued has tripled in the last decade. He alleged that “alleged that potential H-1B applicants are being advised to apply for an O visa instead of the numerically capped H-1B visas intended for highly-skilled workers to bypass legal restrictions on employment visas” (AIPTI, 20 July 2017) Also, in July 2017, the Trump administration has announced a one-time increase of 15,000 additional H-2B visas for low-wage foreign workers after determining that the needs of US businesses cannot be satisfied with Americans willing and qualified to do the work (Economic Times, 18 July, 2017).

In the light of the aforementioned neatly knitted structure of the economic rubric and the recent debacle surrounding the new H-1B Visa Bill, it becomes essential to analyze the newly introduced bill with respect to India – USA bilateral trade relationship.

### **Sense and Sensibility of H-1B Visa for USA**

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With the same marginal productivity of labor, or sometimes more, the H-1B Visa holders are paid less than their US counterpart. The expatriate H-1B Visa workers in the US economy partially crowd – out Native American workers in the marketplace (Doran et al., 2016) as well it lowers the average

real wage rate in the US economy (Giovanni et al., 2015, Pandey and Chaudhuri, 2017) isolated the effect of immigration-induced changes in the size and skill distribution of the labor force on labor market outcomes using a model in which firms endogenously respond to these changes. Their results show that immigration increases the relative average wages of the skill intensive sector. Further, real wages of all workers increase due to reduced prices caused by the increased size of the labor force. Also to assure that Native American workers are not displaced or economically affected, Peri (2017) showed that the timing and skill distribution of Immigrants between 1970 and 2016 imply they did not contribute to the decline in the wages of native, non-college educated workers - including high school dropouts - at the national level.

The H-1B Visa holders are often highly educated and skilled workers who bring gains in US economy. They do not incur any cost to the American tax payers' money, rather generate substantial tax revenues to the US government's exchequer. Also, many a times, they drive innovation, generate additional revenues and create intellectual properties. A 2010 study by the Brookings Institute concluded that, *"The most recent academic research suggests that, on average, immigrants raise the overall standard of living of American workers by boosting wages and lowering prices."*

H1B workers make US businesses highly competitive. A lower wage cost helps businesses to bring newer set of

investments, which with its multiplier effect enhances US macro performance indicators to a greater height.

There is a political hue and cry about rising US unemployment. The recent statistics published by Bureau of Labor Statistics (US Department of Labor), states just the reverse. There is a continuous fall in the unemployment rate (4.7% in February 2017, a fall by 0.3% from the previous one) and it is almost hovering around the zone of Natural Unemployment Rate. So at this juncture an expansionary boost towards a specific interest group could result in an unintended consequence and can jeopardize the fine balance of US macro economy.

As a result of the replacement of the expatriate H-1B Visa holders with Native Americans under the American jobs protection scheme, there is an immediate increase in the employment rate of Native Americans. But this increase is transient. There is skewness in the wage earnings in the US job market. Since these companies are compromised to offer higher wages to the Native Americans, they in turn, without absorbing the cost, raise the prices of their finished goods and services. The domestic price of the product in the US market rises. It becomes expensive or sometimes unaffordable to US mass market. Since the domestic demand wanes as a result of higher prices, the US company tries to explore global market for their product. Again, it loses in its cost competitiveness. Ultimately resulting in poor economic health of the company and liquidation of business. This

amounts to a generation of vicious cycle with negative spillover effects that has a detrimental effect on the US economy as a whole.

The immediate consequences can lead to increased automation of jobs, particularly at the entry-level positions. The first quarter of 2017 witnessed Technology giant Cognizant mulling to reduce over 6000 jobs in order to remain cost competitive in the information technology market place.

Also being pinned to the wall, in response to *stop outsourcing* move, US companies might decide to shift their manufacturing and production bases to more economically favoring locations, including Canada and Western Europe.

With the newly introduced “Keeping American Jobs Act” 2017, US loses its sheen in bringing innovation and patented technologies to the world, as the embargo directly hits the highly skilled post-doctoral researchers and scholars.

### **For Here or To Go: India’s Awakening**

The movie “For Here or To Go” released worldwide on 02 April 2017 on H-1B woes has started getting reviews in the International media. While the film industry would like to conjure up the movie to another classic dilemma of an Indian wayfarer trying to navigate his fortune in the US, there are conflicting views, which are pouring forth in the print and digital media. The Seattle Times describes the movie as an “insightful group portrait.” However, the right-wingers differ. Anti-

immigrant website, Breitbart News, headed by President Trump's former advisor Steve Bannon, alleged that “the movie's basic message is that foreigners are entitled to live in the United States if they want to do so, regardless of American law or Americans’ wishes. The movie offers a very flattering image of the almost 1 million H-1B middle-skill contract-workers holding white-collar jobs throughout the United States. It features a Bollywood-style song-and-dance number, but it sidelines the wishes and worries of many off-screen young Americans whose salaries and careers are being undercut by the flood of cheap H-1B contract workers.” Clearly, for India – USA bilateral relations, the times are indeed changing.

The newly introduced amendment in H-1B Visa norms bears an apprehension of protectionism, anti – immigrant and anti – Indian sentiment in Indian workers in US. It is not only the ethnic Indian community who are disturbed. IT behemoths like IBM, Google, Apple and Uber are trying hard to convince Trump Administration to reconsider his decision. Ironically, there are a million jobs vacant in the IT space in US, which US outsourcing companies have been unable to fill till date. And it has been made worse with the introduction of the new bill.

The stakes for the Indian outsourcing industry, currently estimated at \$ 108 billion are quite high. The majority of the revenues generated comes from US. India earns more than US\$60 billion from the American market by providing IT and engineering services

to major US businesses. Policy Analysts say immigration reforms introduced by Trump administration will not only curb that but could also restrain future entrepreneurial zeal. At least nine private start-ups in US, listed in Wall Street, with valuations of USD 1 Billion or higher, have a founder of Indian origin. The Indian Government is trying to ensure that the interests of IT companies does not suffer. Commerce and Industry Minister Ms Nirmala Sitharaman mentioned in July 2017 that India has taken up visa issue with US, in response to Indian IT industry concerns raised over the proposed changes in the US visa regime. The industry observes that any changes in work visa programmes, may result in higher operational costs and shortage of skilled workers for the USD 110 billion Indian outsourcing industry.

The initial euphemism surrounding the Y2K innovations as propagated by Indian IT industry appeared to be short – lived. Indian IT sector must move on beyond its comfort zone. Ganesh Natarajan, Former CEO, Zensar Technologies and Chairman, 5F World has categorically mentioned that Indian IT industry must change its business model. The new model should concentrate on product and platform development and have lesser reliance on wage arbitration, as argued by Ganesh Natarajan. The focus should be more on innovation. Design thinking in IT space should be the new normal. India has done enough work on routinized response mechanisms as applicable to outsourced

services. Indian technology giant Infosys is quite upbeat about the new dawn in Information Technology space heralding in United States (Jha, 2017). Infosys senior leadership opines that the Indian IT industry has delivered a tremendous amount of value, especially in the US. Infosys, in a phased manner, plans to hire 10,000 new recruits in the US in the next two years. With this in mind, Infosys has opened the first US Development Center in Indianapolis. In this direction, what the company is focusing on, is that, in addition, beyond hiring and the local economy and the contribution and so forth, it is about creating strategic innovation. It is about creating jobs with new kinds of skills in United States.

It is time to look forward beyond this horizon. Indian Engineering Institutes and academic fraternity should encourage more on bringing more “new” to the technology space, albeit through more investment in research that results in newer patents. We should have the ability to move to newer markets and newer verticals. There is a great opportunity in the technology space, which India can explore beyond US. The general impression that Indian IT industry’s outsourcing business is dependent on H-1B visa is slowly giving way, thanks to the pioneering innovation path followed by companies like TCS, CTS, Infosys and Tech Mahindra. And it is just the beginning of a new revolution in Indian Digital Journey. As it is rightly said, *the times are indeed changing!*

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# IT Revolution in Service Sector

Prantik Dutta\*

## Information Technology – A Challenging Story

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Information Technology paved its path from ancient historical period where it was in a pre-mechanical development stage (3000 B.C. – 1450 A.D.), then evolved the mechanical phase (1450 A.D. – 1840 A.D.), then the Electromechanical phase (1450 A.D. – 1940 A.D.) and finally ushered the Electronics phase (1940 A.D. – present day). Each phase had a revolutionary leap as compared to their previous phase with an innovative motto as to reduce human effort, as a means to develop an alternative to the limited human memory cell, as a vision to reduce the time required for analytic calculations.

Today, information technology has evolved to be a part of our daily life. Every action we do is aided with some sorts of database. The social networking sites connect the world, the various emerging applications are a means to entertain the stressed cerebrum while some provide a means to test our intelligence quotient, each workplace, starting from the intermediate schools, offices to hospitals, require a robust but flexible database in order to keep track of their enrolled students, employees, patient information etc. The database

needs to be flexible enough as in to allow it to be edited with varying circumstances. Thus, processing and maintaining these databases require skilled engineers specialized in this particular field. All these are a result of the leading globalization in the IT Sector. Eventually business in this sector has turned out to usher in each and every country across the globe as a means to develop their economic standards. Each nation frame its own laws and regulations in this sector so as to gain the maximum out of it.

## Indian IT Sector – a Valuable Position in the Global Market

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India is the world's largest sourcing destination for the Information Technology (IT) industry, accounting for approximately 67 per cent of the US\$ 124-130 billion market. The industry employs about 10 million workforces. More importantly, the industry has led the economic transformation of the country and altered the perception of India in the global economy. India's cost competitiveness in providing IT services, which is approximately 3-4 times cheaper than the US, continues to be the mainstay of its Unique Selling Proposition (USP) in the global sourcing

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market. However, India is also gaining prominence in terms of intellectual capital with several global IT firms setting up their innovation centres in India.

In the developed countries, the compensation provided to each employee starting from the fresher's level is much higher than India. Stating from the June 2016 News Release of the Bureau of Labor Statistics, U.S. Department of Labor, the Employer costs for employee compensation averaged \$33.94 per hour worked in March 2016 which accounts to ₹ 2278.73 INR per hour, but as we see in the developing states the average CTC offered by the leading IT sectors to the fresh Engineer graduates from the less average institutes is ₹ 3,00,000 to ₹ 6,00,000 INR P.A. and that from the IIT's is more than ₹ 10,00,000 INR P.A. but we see that too is much less than the average salary paid in the foreign developed countries. Thus, utilizing Indian skills in the foreign IT industry development has resulted in IT - a leading business for our nation.

Information Technology in India is an industry comprising of two major components - IT Services and Business Process Outsourcing (BPO). The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.5% in 2012. According to NASSCOM, the sector aggregated revenues of US\$147 billion in 2015, where export revenue stood at US\$99 billion and domestic at US\$48 billion, growing by over 13%.

Information Technology is playing an important role in India today and has transformed India's image from a slow moving bureaucratic economy to a land of innovation. The IT sector in India is generating 2.5 million direct employments. India is now one of the biggest IT capitals of the modern world and all the major players in the world IT sector are present in the country.

The Indian IT sector is divided into four main categories: IT services, business process management, software products and engineering services, and hardware. About 90% of India's IT software and service exports are sent to the U.S. and the European Union.

There are over 4,500 IT companies in India. Large companies comprise 48% of IT exports; medium companies comprise a third. With the rise of social, mobile, analytics, and cloud services, small and medium-sized enterprises increasingly contribute to the sector.

Top Indian IT firms include TCS, Wipro, Infosys, Tech Mahindra, Hindustan Computers Limited Technologies. Major foreign companies investing in India's IT sector include Dell (Texas), Hewlett Packard (California), SAP (Germany), Oracle Corporation (California), Cognizant (New Jersey), Intel (California).

*Software Technology Parks of India (STPIs) & Special Economic Zones (SEZs)* are organizations established by the Indian government to increase exports,



revenue, employment, and foreign direct investment. They offer benefits such as tax exemptions, 100% FDI, and single-window clearance for unit setup. Over half of the 202 SEZs in India specialize in IT or electronics software. There are 53 STPI centers across India.

### **Information Technology – a Talk of the Budding Engineers**

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The IT industry has also created significant demand in the Indian education sector, especially for engineering and computer science.

As compared to the limited number of R&D organizations in our nation, IT sector provides a huge scope of employment to the young engineers across the country. As a result of this, there sprang a large number of engineering colleges at all corners of the country providing under-graduate degree in technical fields. Most of the students, even if they opt for other core streams like Mechanical, Electrical or Civil Engineering move to getting placed in IT sectors. It's actually nature's psychology to move towards stability. So, at the end of the day, students feel themselves in a more stable position, both financially and socially, getting themselves placed in the IT Sector than opting for higher studies or moving towards the core field. Statistical reports reveal that even students with a high intelligent quotient nowadays prefer a stable job than moving on to pursue higher studies. With this, arises various

contradictions and dilemmas with regards to the job at IT sector.

### **Information Technology – the Future Aspects**

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It was expected of The Indian IT sector to grow at a rate of 12-14 per cent for FY 2016-17 in constant currency terms. The sector is also expected to triple its current annual revenue to reach US\$ 350 billion by FY 2025.

Employees from 12 Indian start-ups, such as Flipkart, Snapdeal, Makemytrip, Naukri, Ola, and others, have gone on to form 700 start-ups on their own, thus expanding the Indian start-up ecosystem! India ranks third among global start-up ecosystems.

Total spending on IT by banking and security firms in India is expected to grow 8.6 per cent year-on-year to US\$ 7.8 billion by 2017. India's internet economy is expected to touch 10 trillion (US\$ 146.72 billion) by 2018, accounting for 5 per cent of the country's GDP.

The public cloud services market in India is slated to grow 35.9 per cent to reach US\$ 1.3 billion according to IT consultancy, Gartner. Increased penetration of internet (including in rural areas) and rapid emergence of e-commerce are the main drivers for continued growth of data centre co-location and hosting market in India. The Indian Healthcare Information Technology (IT) market is valued at US\$ 1 billion currently and is expected to

grow 1.5 times by 2020. India's business to business (B2B) e-commerce market is expected to reach US\$ 700 billion by 2020 whereas the business to consumer (B2C) e-commerce market is expected to reach US\$ 102 billion by 2020.

Cross-border online shopping by Indians is expected to increase 85 per cent in 2017, and total online spending is projected to rise 31 per cent to ₹ 8.75 lakh crore (US\$ 128 billion) by 2018.

Post the government's announcement of demonetisation of specific currency denominations, digital payment platforms such as Paytm, MobiKwik, Oxigen witnessed a sharp spike in user transactions, app downloads and merchant enquiries, thereby indicating a greater demand towards digital payments by consumers.

India ranks among the top five countries in terms of digitalisation maturity as per Accenture's Platform Readiness Index, and is expected to be among the top countries with the opportunity to grow and scale up digital platforms by 2020.

Indian IT's core competencies and strengths have attracted significant investments from major countries. The computer software and hardware sector in India attracted cumulative Foreign Direct Investment (FDI) inflows worth US\$ 22.83 billion between April 2000 and December 2016, according to data released by the Department of Industrial Policy and Promotion (DIPP). Leading Indian IT firms like Infosys,

Wipro, TCS and Tech Mahindra, are diversifying their offerings and showcasing leading ideas in blockchain, artificial intelligence to clients using innovation hubs, research and development centres, in order to create differentiated offerings.

The *Digital India* programme has been taken up across multiple industry verticals and departments. In the recent past, we see many government departments migrating their systems and services online, which definitely increases the democratisation of technology and promises easy access to various government services across the length and breadth of the nation.

However, the *Digital India* wave has yet to create a significant impact on the IT industry, as most of these initiatives are in initial phases. Over the next few years, the digital initiative will emerge into a big opportunity. Creating digital awareness and accessibility will definitely have a positive impact on the future workforce. The IT industry will face a shortage of digital skills in the coming years, and there is a need for a focused approach to create a skilled and digitally empowered talent pool.

### **Information Technology – the Darker Side**

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It's true that IT sector requires credible brains equipped with application development enthusiasms and potentials but in most cases, job at IT sector turns out to be an utter dissatisfaction to many. Stressed with the whole day work

for a whole month, the compensation seems to be inadequate with respect to the work hours spent in front of the computer. Tired brains seem to be lag the necessary rest period. IT professionals lack the essence of family attachments at the end of the day, they lack the fragrance of the social culture, they have to compromise with their passions whatsoever it is. As for the girls, it's often quite difficult to cope up with the stern office policies, it's quite uncomfortable to work late at night, it's hard to compromise her family, her children, her society to sustain the job. Then comes the second issue of various unscrupulous politics prevalent, which have a destructive influence on the work ambience. The young employees need to withstand these barriers in order to sustain their job, in order to have appraisals. Many a times, they need to sacrifice their moral ethics in order to suffice to the employer's needs. From a different point of view, in most cases, life as an IT professional doesn't fulfill the Maslow's hierarchy of needs. Continuous stress of the brain cells for a prolonged period with inadequate rest results in unhealthy physical and mental stability which leads to fatigue. So, in order to sustain the job and to have a financial security, one has to compromise with the health and well-being amongst the Safety needs of Maslow's hierarchy. Moving to the next higher level, one hardly gets time to spend with his/her family and with the society. Weekends, in most cases

are equipped with assignments or a teleconference meeting with the foreign clients. It's not only possible to be a part of the society, but also it hinders one to keep time for oneself. So, self-actualization needs seem to be far away, even the social needs – time to spend with family, friends and society happens to disembark from the voyage of an IT professional. Now, let's move to a different part of the scenario. The numerous technical institutes of our nation starting from the IITs to the various other flourishing engineering colleges at different corners of the country are producing approximately 1.5 million engineers per year. Among these millions of fresh graduates every year, most are placed in IT sectors irrespective of their talents and intelligent quotients. The few of the R&D sectors are thus deprived of young talents who would otherwise be a boon to the society in large. These young talented graduates don't come up to be a boon to the already developing IT sector. Fresh graduates do find the job very interesting in the first few days but eventually the darker side of this sector comes into the picture. IT professionals, especially those with exclusive innovative thoughts and ideas, find that this road leads to nowhere, they can't literally implement their ideas in the real life, they feel themselves in a frustrating situation when following the orders of the boss turns out to be the only means to demand appraisals. Implementing one's own innovations

leads to a war of ego with the seniors – a mutual dissatisfaction for both the employer and the employee. Many try to switch to a different job to meet their aspirations – hopefully a few can, but for the remaining, it's just a hopeless dream. So, is it not a waste of a nation's largest resource? Yes, it definitely is. It's a true wastage of human resource which could otherwise be utilized for enhancing the quality of the underdeveloped research areas in different fields which demand real skills and by large, for the betterment of the society. The Indian talents who move to accomplish their careers in the foreign IT sector companies are actually a drain of the nation's assets. Likewise, in more or less every aspect, with some obvious exceptions, IT sector in India fails to acknowledge the talents and even if it does, it fails to accept that in the real field.

### **Views from the Author's Corner**

Owing to the recent trend in the global IT framework, India occupies a respectable position. Still, Indian IT industry lags in providing handsome appraisals and benefits to most of the employees. Having a ten minutes talk with a few of our mates absorbed and established in various IT sectors reveals the utter dissatisfaction that creeps deep inside their veins. Frustration doesn't seem to get waned by the salary they receive at the end of each month. The urge to move towards the comfort zone of the family seems to get tougher with years of experience.

Even the worse happens when, working as an IT professional, seems to be a mere waste of the resources life has provided us with. As a result, many lose their interest in the daily works, many feel the lack of self-esteem and there's no way left than to repent for the cause which turned them out as IT professional today.

So, what we feel, life as an IT professional should be something different. It should be accompanied by appraisals, not always in the form of a hike in the annual CTC of the employee, rather by some other means. The governing bodies or the management sections of various IT sectors must develop a moral as well as a healthy environment so as to psychologically uplift the esteem of an employee. They should frame the corporate policies in such a way so as to benefit both the employee and the employer. The work load should be more scientific and the administrators should be more humane so that the employees don't get to feel dissatisfied at any point of time. The urge to come to the workplace should be as comfortable as the desire to get back. The Human Resource Development (HRD) teams must play a vital role in analyzing each and every employee individually, thereby providing appraisals and rewards to those who are really keen in their tasks. Each subordinate should be provided with ample opportunities to climb the stairs of success. Whistle blowing should

be encouraged at every point, and with utmost attention that the dignity of the whistle blower is preserved by any means. The companies must be equipped with proper refreshment centers, lawns and adequate spaces to let the employees breathe fresh air and to avoid fatigue. In context to the emphasis on yoga in the present day, as a part of social responsibility, Yoga can be preached and practiced amongst all the members of a company in a proper way by experts in this field. Each should be made aware of the benefits of this practice. Preserving an hour from the day's work and utilizing the same by practice of yoga can chill the stressed brain and refresh the body and mind with fresh oxygen.

Apart from all these, regardless of the numerous foreign IT companies trading in our nation, many of the states of our country have the capability to yield public sectors in this industry. Today, more or less each and every organization depends on information technology in some or the other means. Most of them give the responsibility of processing and maintaining the database to the branded IT companies. If this responsibility be distributed amongst the thousands of unemployed engineers, who are struggling for a job in a branded company, then the promotion of this industry in the country itself would leap ahead towards a better future. With this, even the 'Make in India' project undertaken by the Government of India in the recent

past would gain a national importance in this sector. Even, the economically backward states of the country can be enriched by promoting this sector as a means of small scale industry, thereby increasing the employment rate of the nation by large which would in turn uplift the economic status quo of the nation to a much higher level.

### **Conclusion**

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Notwithstanding all the banes of this industry, still, India stands up to be the world's largest sourcing destination for the information technology industry. IT industry has transformed the Indian economy and has made India achieve a respectable position in the global economy. India's cost competitiveness in providing IT services is approximately 3-4 times cheaper than that of the United States, which continues to be the mainstay of its Unique Selling Proposition (USP) in the global market. Regardless of the job culture, IT sector in India provides employment to millions of engineers with skills in Computer Science, Electronics, Electrical Engineering and from many other streams. Although the employees lack a social life, still at the end of the month, a handsome package draws a smile on their faces. In the recent scenario, the government's 'Digital India' movement has leaped the demand of the IT sector to even a higher level. Still, the Government of India must make amendments in the IT laws so as to make the life of an IT professional a bit more comfortable. Stringent policies

should be enacted by the government so as to have a balance between work and life and to have fixed office hours with adequate rest period. The government should amend the laws in such a way so as to provide more safety measures to the girls. The Corporate Social Responsibilities (CSR) of each of the IT companies should be such so as to have a direct impact on the general mass - a must for a better humanity. Last, but not the least, Government should take into consideration that thousands of young talents are lost each year, which could otherwise be utilized in various research, manufacturing industries or socio-economic workplaces. It's only the young generations who can lead the nation, who can enrich the nation's position in the global market, who can uplift the nation to its pinnacle.

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The Bombay Chamber of Commerce and Industry Trust for Economic and Management Studies was constituted in 1996 by the Bombay Chamber of Commerce and Industry to undertake independent research activities on various economic and management issues and for providing analytical views on macro-economic scenario, industrial performance and other issues of topical interest.

The Trust started publishing the quarterly magazine 'AnalytiQue' for the quarter October-December in the year of 1999 to serve as an effective vehicle of communication between the government, industry, economists, thinkers, management consultants and scholars. In its short journey the magazine had some trying spells and after the issue of January-March, 2006 there has been no issue. However, after four years, the Trust published the next issue as Journal in March, 2010. While retaining its basic purpose and character, AnalytiQue now continues to serve members, who are drawn mainly from the world of business and commerce and deals with contemporary economic issues while documenting some of the important developments of the Indian economy.

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