

Participation of Information Technology and Increase of Indian Economy

Abstract

Information technology has become a necessity in the present world. Whether it is trade, development economic, growth or business organization, information technology has played a keyrole everwhere. Information technology now has associated with two major approaches- information Delivery and service Delivery. Today's escalating, competitive and demanding environments have forced companies to be more efficient, operate learner and continuously create new procedures to keep ahead of competitors-adding final consumer value to a product or service in the form of lower prices, quality and better service has become an essential requirement in the global market.

Keywords: Economy, Economic Growth, Economic Development, Information Technology

Introduction

The rise to prominence of India's economy India has gradually gained in global economic prominence over the past decade. In purchasing power parity (PPP) terms, in 2014 India was already the third-largest country in the world after China and the United States. With growth expected by many observers to remain strong in the future, India's contribution to global growth, and thus its relevance for the euro area outlook, may increase further. This box attempts to put India's recent policy developments into perspective and to assess the economic prospects and challenges for the country. India already plays an important role in the global economy. In 2014 it accounted for 6.8% of world GDP on a PPP basis (see Chart A) and provided the largest contribution to global growth after China (see Chart B). In contrast, in global trade and financial markets, India has played a relatively smaller role thus far. It accounted for less than 2% of euro area exports and just 2.5% of world imports in 2013, which is more in line with India's share of world GDP based on market exchange rates. At the end of 2013, India was the recipient of less than 1% of the global stock of foreign direct investment (FDI); in terms of outward FDI, the country's share of the global FDI stock was even smaller. India's impact on commodity markets on the demand side has also been comparatively small, considering its large population. For example, its share of world energy consumption was less than 5% until recently – much smaller than China's share (more than 20%).

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Chart A Shares of world GDP

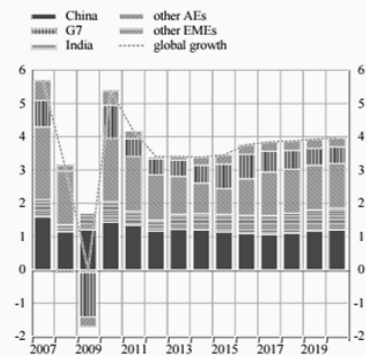
(percentages of world GDP)



Sources: IMF World Economic Outlook, April 2015, and ECB calculations.
Notes: GDP shares are based on the purchasing power parity valuation of each country's GDP. Figures for 2014 are marked on the chart, data for ensuing years refer to IMF projections.

Chart B Contributions to global growth

(percentage changes; percentage point contributions)



Sources: IMF World Economic Outlook, April 2015, and ECB calculations.
Notes: "Other AEs" refers to all advanced economies outside the G7. "Other EMEs" refers to all emerging market economies besides India and China. Data for 2015 and ensuing years refer to IMF projections.

In the present global marketplace, lower prices without reducing the quality of a product or service, quality and better consumer services have become the necessities. Moreover, the environment, too, is demanding more competition, new procedural aspects in launching new products and the value for money being exchanged by the consumer in the market. Such practices have become a challenge for the manufacturers and the competitors to innovate products and services and the methodology as well to tap global opportunities, to focus on core competencies and mutual positive relationships and outsource those activities that can be fast completed and cheaper comparatively.

Outsourcing, in a globally integrated economy, benefits for the source economies including heavy monetary and employment benefits. India is a target destination for multinational IT-ITES related operations owing to its strong value proposition in India. IT-ITES oriented economic growth refers to the digital processing, storage and communication of information of all kinds. Therefore, telecom access devices, more extensive communication network can potentially be used in each and every sector of the national economy. Information Technology sector is alone strong enough to boost any economy towards height. Japan, Korea, China, Finland and Vietnam are some strong examples from the globe.

Information technology (IT) is an example of a general purpose technology that has the potential to play an important role in economic growth, as well as other dimensions of economic and social development. This paper reviews several interrelated aspects of the role of information technology in the evolution of India's economy. It considers the unexpected success of India's software export sector and the spillovers of this success into various IT enabled services, attempts to make IT and its benefits available to India's rural masses, e-commerce for the country's growing middle class, the use and impacts of IT in India's manufacturing sector, and various forms of e-governance, including internal systems as well as citizen interfaces. The paper concludes with an overall assessment of these different facets of IT in the context of the Indian economy.

History of Information Technology Industry

The IT industry has built very valuable brand equity for itself in the global markets. The Indian IT Industry comprises of software industry and information technology enabled services (ITES), which even includes business process outsourcing (BPO) industry. Indian IT Industry is considered as a pioneer in software development and a favorite destination for IT-enabled services. In the year 1974, the origin of IT industry in India can be traced, when the mainframe manufacturer, Burroughs asked its India sales agent, Tata Consultancy Services (TCS) to export programmers for installing system software for a U.S. client.

The Indian IT industry originated under very unfavorable conditions. During olden times local markets were absent and government policy toward private enterprise was hostile. The Indian IT Industry was begun by Bombay-based conglomerates that entered the business by supplying programmers to global IT firms located overseas. During 1970's the

Indian economy was state-controlled and remained hostile to the software industry. Even the Import tariffs were high like 135% on hardware and 100% on software. Even the exporters were ineligible for bank finance.

Today, IT companies in India such as Tata Consultancy Services (TCS), Wipro, Infosys, HCL are well known in the global market for their IT competency. Indian IT Industry's development and contribution to the world's information technology sector is of highest reputation. Metro Cities like Bangalore, Mumbai, Delhi, Chennai and Hyderabad have become the favorite destinations for all the big banners like HSBC, Dell, Microsoft, GE, Hewlett Packard, and several Indian multinational firms like Infosys Technologies, Wipro, and Micro land have set up their offices in these cities. As the cities offers good infrastructure, with large floor space and great telecom facilities. This could be reason for the basis of the high growth statistics of India and the changing outlook of the companies towards India. The Indian IT Industry has grown up to US \$ 5.7 billion in 1999-2000, with the annual growth rate not sliding below 50 % since 1991.

Role of It on Indian Economy

The IT industry in India has grown almost tenfold in previous decade. Software export has increased upto 62 per cent in the last 6 years. Call Centers, back office processing, contents development and medical transcription registered quick and heavy growth in the last years. Albeit, this sector is rapid employment provider and has a potential to distribute more than 2 million jobs in coming 5 years. It significantly contributes through software exports in GDP also.

To accelerate economic growth and to reduce widespread poverty in real terms, country like India needs social development and improvements through welfare economics. Promoting private sector led growth, environmental management and international trade are other issues to be discussed. Priority should be given in investing in physical as well as human capital.

The Indian Information Technology and Information Technology Enabled Services (IT-ITES) industry has become a growth engine for the economy in terms of poverty reduction, employment generation especially urban employment, contributing substantially to increases in the GDP, and exports. When the Indian economy had been impacted by the global slowdown, the IT-ITES industry has displayed motivational resilience to counter the unpredictable conditions and reiterating the viability of India's fundamental value proposition. Through the rapid growth of IT-ITES industry, the basic objective of socio-economic-agro-industrial can be achieved more easily and dynamically.

Growth and Performance of Information Technology Industry in India

The rapid expansion of socio-economic-agro-industrial infrastructure has proved to be of great support in the growth of Indian IT-ITES industry. It has tremendous potential to accelerate economic growth, improve productivity and efficient governance for all sectors of the economy in India. This sector helps to access relevant information, support consumers,

quick reach to government services, helps to form skills and conduct training more effective and transparently. It provides linkages between government and the people both at the rural and urban level as per target, requirement and implementation. The IT-ITES industry is one of the fastest growing industries in India. As a proportion of Gross Domestic Product, the information technology industry revenue has grown from 5.8 percent in 2008 to an estimated 9.3 percent in 2015. Export growth is expected at nearly 57 percent in 2020. The industry envisages direct employment to new 2 million people and indirect job creation estimated to 10 million people till 2020. Indian information technology sector

is the biggest source of revenue and employment generation. The growth of IT-ITES industry helps to develop the other sectors of the economy, also.

India's GDP and Information Technology Industry Growth

Indian information technology industry has grown manifold during the period 2004-05 to 2013-14 as shown in table 1. Indian education system gives more emphasis on mathematical skills and proficiency in English language and this has created skilled workforce preferably suited to the information technology industry. Indian universities are pumping out 1, 20,000 engineering graduates in a year.

Table-1

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
IT Services	0.17	0.21	0.30	0.39	0.51	0.69	0.86	0.93	0.79	0.95
BPO Exports	0.11	0.18	0.22	0.32	0.43	0.55	0.72	0.78	0.81	0.89
Domestic Market	0.25	0.29	0.32	0.35	0.37	0.42	0.45	.51	0.52	0.67
Total	0.57	0.69	0.84	1.21	1.39	1.62	2.03	2.25	2.42	2.87

The total IT Software and Services employment was estimated as 2.87 million in the year 2013-14 and it was only 0.57 million in the year 2004-05. The direct employment contribution in the estimated employment is about to 2.03 million in 2010-11. This translates to the creation of about 12.21 million job opportunities attributed to the growth of the sector. Direct employment within the IT-BPO sector is expected to grow by 5% reaching almost 2.6 million, with over 110,212 jobs being added in Financial year 2013-14.

12th Five Year Plan

The Information Technology sector has made remarkable progress in the last decade. It has transformed the world, enabling innovation and enhancing productivity, connecting people and communities, and improving standards of living and providing opportunities across the globe. While changing the way individuals live, interact, and work, IT has also proven to be a key enabler for enhanced competitiveness and economic and societal modernization, as well as an important instrument for bridging economic and social divides and reducing poverty.

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India has become a global power house in software and software services sector. Over the years various initiatives have been taken in the Information Technology sector to foster innovation, improve delivery of e-Services to citizens and bring about profound change in the way business is conducted and the way Government works. Information Technology has tremendous potential for the future of India. In view of the overall priorities of the

Government in the 12th Five Year Plan a focused and coordinated push in the IT sector during 12th Plan period will help India achieve faster, sustainable and more inclusive growth. Accordingly the vision and mission for IT sector for the Twelfth Plan will be on e-Development of India through a multi pronged strategy of e-Infrastructure creation to facilitate and fast track e-governance, promotion of Electronics hardware manufacturing & Information Technology – Information Technology Enabled Services (IT-ITeS) Industry, providing support for creation of Innovation Research & Development (R&D), building knowledge network and securing India's cyber space.

The pace of technological advance is accelerating and Electronics and ICT is increasingly becoming a ubiquitous and intrinsic part of people's behaviours and social networks as well as of business practices and government activities and service provision. These transformations will continue to guide human progress forward by further leveraging IT's positive social, political, and economic impact on government, enterprise, and civil society alike. Information Technology sector has been one of the key drivers for faster and inclusive growth in the Eleventh Five Year Plan. It has contributed immensely to the development of Indian economy.

Conclusion

This paper has provided a review and overview of various facets of IT in India's economy. The most obvious of these is the IT sector itself, including IT enabled services such as business process outsourcing. This sector has proved to be resilient and innovative, continuing to expand and upgrade its offerings. The export orientation of the sector has contributed to its competitive discipline and success, though that success has never been a forgone conclusion. At the other end of the development spectrum, this paper discussed several aspects of rural IT in India. A decade ago, there were many ambitious attempts to harness the potential of IT for providing rural communications and other IT-based services. The story of these attempts illustrates many of the general problems of development. Often, the binding constraint was a lack of certain types of human and social capital. Low levels of income also

were an obvious challenge in creating sustainable business models for rural Internet delivery. Nevertheless, various experiments and more ambitious ventures have provided lessons about how to go about such efforts in the future, and they have suggested that IT access for India's rural masses is not a pipe dream. One joint lesson from the two polar extremes of IT in India's economy has to do with the role of government. When the government provided some basic infrastructure and human capital development roughly appropriate for software development and IT enabled services, the sector took advantage of global opportunities and took off. In the case of rural IT, the story is often one of government failure, failure to provide physical infrastructure and failure to provide organizational infrastructure. But this is just part of a larger story of government failing to deliver public goods when it is supposed to do so.

References

1. Singh, Nirvikar (2002), Information Technology as an Engine of Broad-Based Growth in India, in *The Future of India and Indian Business*, ed. P. Banerjee and F.-J. Richter, London: Macmillan.
2. Hanna, Nagy K. (1991), "The Information Technology Revolution and Economic Development", World Bank Discussion Papers, No.120, World Bank Washington DC.
3. Drèze, Jean and HarisGazdar (1997), Uttar Pradesh: The Burden of Inertia, in AmartyaSen and Jean Drèze, *Indian Development: Selected Regional Perspectives*, Delhi: Oxford University Press.
4. Economist (2005), The Real Digital Divide, Technology and Development Survey, The Economist, March 10th.
5. Jensen, Robert (2007), The Digital Provide: Information (Technology), Market Performance and Welfare in the South Indian Fisheries Sector, *Quarterly Journal of Economics*, 122(3), pp. 879-924.
6. Kochhar, S. & Dhanjal, G. (2005), From governance to e-governance: A second look at some of the country's best projects, Technical report, Skoch Consultancy Services, New Delhi.
7. Parthasarathy, Balaji, Aswin Punathambekar, G. R. Kiran, Dileep Kumar Guntuku, Janaki Srinivasan, and Richa Kumar (2005) *Information and Communications Technologies for Development: A Comparative Analysis of Impacts and Costs from India*, Project Report, Department of Information Technology, Ministry of Communications and Information Technology, Government of India.
8. Singh, Nirvikar (2004), Information Technology and Rural Development in India, in *Integrating the Rural Poor into Markets*, in Bibek Debroy and Amir Ullah Khan, eds., New Delhi: Academic Foundation, pp. 221-246.
9. Singh, Nirvikar (2008), Transaction Costs, Information Technology and Development, *India Growth and Development Review*, 1 (2), pp. 212-236.
10. Singh, Nirvikar (2010), Expenditure Governance and Information Technology: Assessing India's Situation and Potential, *India Review*, 9 (2), pp. 107-139.
11. http://www.dot.gov.in/sites/default/files/communication%20plan_0.pdf
12. http://planningcommission.gov.in/aboutus/committee/wrkgrp12/cit/wgrep_dit.pdf
13. http://planningcommission.gov.in/plans/planrel/12thplan/pdf/12fyp_vol2.pdf