

Information Technology & Indian Economy

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Abstract- Over the past decade and a half (IT) spending has grown exponentially. India's IT sector is driving the Indian economy to unprecedented heights and according to all estimates, the contribution of the IT sector to the Indian economy is set to increase manifold in the future. Amidst claims of increased productivity through greater use of IT in the manufacturing process, India, like some other developing countries, has adopted policies to support the growth of the IT services industry. Such policies are adopted in the belief that the IT sector will also increase the productivity of the economy, thereby facilitating development. Also, the role of IT in India's economic development has enormous potential to accelerate growth. Information technology has not only contributed to the economic development of the country but has also made the administration more responsive and efficient. Information technology in India has made the management and delivery of government services (such as consumer rights, healthcare, etc.) more effective by improving transparency. Information technology sector includes IT-enabled services (ITES), IT services, software products, e-commerce facilities etc. All companies offering are included. Over the past decade, the role of the Internet and computers in our lives has increased manifold. Most people use IT services in some form or the other. The Covid-19 pandemic has further highlighted the contribution of the IT sector to the Indian economy. New start-ups are opening in this sector, which boosts the economy as a whole. The Indian government aims to make technology 20-25% of the country's GDP by 2025, India's IT minister Rajeev Chandrasekhar told Indian American entrepreneurs.

Keywords: Information Technology, Role of IT, Government Measures for IT Sector, Information Technology Utility, Importance of IT sector in India.

Introduction – The information technology (IT) industry is an important component of the technology-based knowledge economy of the 21st century. India is known worldwide as a knowledge economy due to its impressive IT industry. The role of IT in India's economic development is vital. The IT industry mainly includes IT services, IT-enabled services (ITES), e-commerce (online business), and software and hardware products. The industry is instrumental in developing the infrastructure to store, process and exchange information for essential business operations and other organizations. Moreover, IT-based services and products have become indispensable for any business venture to thrive and achieve success.

After the economic reforms of 1991-92, the role of IT in India's economic development has grown exponentially. Indian IT companies have established thousands of centers in India and around 80 countries around the world. Majority of global companies are sourcing IT-ITES from Indian IT sector. With an estimated share of 55 percent of the global service sourcing market (US\$ 200-250 billion) in 2019-20. The market size of the IT industry (especially exports) has increased manifold from an estimated US\$ 67 billion in 2008-09 to US\$ 191 billion in 2019-20. The revenue is expected to increase further with rapid growth in the coming years and is estimated to reach 350 billion US dollars by 2025. “In the last nine years, the digital economy has expanded, diversified and currently there are no Indian entrepreneurs, Indian start-up’s in the technology space; Be it semiconductors, micro-electronics, AI, block chain and Web3 high-performance computing languages and consumer internet,” “Our target is that the technology and digital economy will account for 20% of the

total GDP, which is 8% annually by 2025-2026, 7.5 is increasing at the rate of %. So, 20% of our GDP, which would be about \$5 trillion to a trillion dollars, and that's the goal that we're working towards. Mr. Chandrasekhar said this in his virtual speech at the annual conference of the Global Indian Technology Professionals Association.

Information Technology-Information Technology refers to any computer, storage, networking and other physical equipment, infrastructure and all forms of electronic data creation, processing, storage, securing and exchange. Information technology is a set of related fields that includes computer systems, software, programming languages, and data and information processing and storage. IT is part of Information and Communication Technology. An information technology system is generally an information system, a communication system, or, more specifically, a computer system including all hardware, software, and peripherals operated by a limited group of IT users, and an IT. A project generally refers to the commissioning and implementation of an IT system. IT provides tools for developing, processing, analysing, exchanging, storing and securing information.

Role of Information Technology in Indian Economy:-1.The IT-BPM (Information Technology and Business Process Management) sector in India accounts for 9.3% of the country's GDP, making it the largest contributor to India's economic growth. The IT sector accounts for 56% of the global outsourcing market.

2.Software Technology Park of India (STPI) reported that its affiliated IT companies exported software worth \$16.29 billion in the first quarter of FY2022.

3.The National Association of Software and Service Companies (Nasscom) estimates that the revenue of the Indian IT industry will reach \$227 billion in 2022, a significant increase from \$196 billion in 2021.

4.The branch of IT sector related to software products is estimated to reach \$100 billion in FY 2025. Indian technology companies are shifting their focus to international markets. It plans to invest in global markets to increase its number of global distribution centers.

5. 4.5 lakh employees were recruited in the first quarter of 2022 till February 2022. This is the highest growth ever in any year. There is a significant participation of women in this as 44% of the total new hires were women.

6. Foreign direct investment (FDI) inflows in the IT sector (computer hardware and software to be exact) during April 2000-December 2021 were \$81.31 billion (14.19% of FDI inflows). Statistics from the Department for Promotion of Industry and Internal Trade (DPIIT) prove that it is the second largest sector to receive such high FDI inflows.

7. Record investment of \$36 billion in private sector IT companies in FY 2021 alone. In 2020, this number was \$11 billion. This led to a three-fold increase in investment in just one year, making the sector a lucrative investment destination.

Government Measures for IT Sector –

1.In the Union Budget 2022-23 announced by Finance Minister Nirmala Sitharaman, \$11.58 billion was allocated for the IT and telecom sector. This is equivalent to ₹ 88,567.57 crore.

2. Department of Telecom, Government of India and Ministry of Communications have signed an MoU with the Government of Japan. Under this, cooperation will be enhanced in the areas of 5G technology development, submarine optical fiber cable systems and telecommunication security.

3. Government of India inaugurated five new National Institute of Electronics and Information Technology (NIELIT) centers in September 2021. They were inaugurated in North Eastern states where the development of IT sector is limited to boost the sector and provide employment. To the youth there.

4. In the same month, the second phase of Visvesvaraya PhD Scheme was launched to promote research in 42 areas related to IT and ITES.

5.GoI has made good plans to develop emerging blockchain, cloud computing and artificial intelligence technologies in the country over the next few years. The focus is also on making internet accessible to remote areas, where people currently face major connectivity issues.

6. 5G is all set to bring a breakthrough in the country's telecom infrastructure. Along with leading private players in this sector, the government is working to facilitate 5G technology in the country as soon as possible.

7.The hardware market will also develop under the government's Atmanirbhar Bharat initiative. The government has launched several PLI schemes to promote the development of computer hardware components in the country. Currently, we are dependent on Asian markets such as China and Taiwan for computer hardware such as chips.

8.During the COVID-19 pandemic, global trade was hit and imports from these Asian countries slowed, leading to a global chip shortage. India wants to be a pioneer in chip development technology, for which it is enabling private companies to set up hardware manufacturing plants in the country.

Information Technology Utility -

1. Product development and design; 2. Marketing and market research; 3. Sales and invoicing; 4. Customer development and retention; 5. Accounting and Taxation; 6.human resources and payroll; &7. Regulatory compliance.

Computerized transactions have entered every part of business and our personal lives. Today, all businesses and most individuals own and use a variety of computing devices, including phones, tablets, laptops, game consoles, and even doorbells, thermostats, vacuums, and kitchen appliances. All of these devices, many of which are part of the IT, tap into the Internet, which connects billions of devices worldwide.

Importance of IT sector in India:-

Economic Growth: The IT sector is one of the fastest growing industries in India, contributing significantly to the country's GDP. It is a major driver for economic growth, creating employment opportunities and attracting foreign investment. The sector has experienced remarkable growth over the years, fuelling India's emergence as a global IT hub.

Employment Opportunities: The IT sector is a major source of employment generation in India. This has created a large number of highly-skilled job opportunities, leading to a promising career path for the youth of the country. The sector's contribution to employment is not limited to IT professionals but also extends to various supporting roles such as administration, marketing and management.

Foreign Exchange Earnings: India's IT sector is a significant contributor to foreign exchange earnings. Exports of IT services including software development, IT consulting and business process outsourcing (BPO) have contributed to a large foreign exchange inflow. These earnings help to strengthen the country's foreign reserves and improve the balance of payments.

Technological Advancement: The IT sector has played a significant role in driving technological advancement in India. This has led to the adoption of advanced technology and digital transformation in various sectors including finance, healthcare, education and e-governance. This has not only improved productivity and efficiency but also increased the overall competitiveness of Indian businesses globally. **Innovation and Entrepreneurship:** The IT sector has been a catalyst for innovation and entrepreneurship in India. It has fostered a culture of innovation, which has led to the development of numerous startups and technology-driven enterprises. These startups have not only created new business opportunities but also contributed to job creation and economic growth.

Skill Development and Human Capital: The IT sector has played a significant role in developing the skills and capabilities of the Indian workforce. It has provided opportunities for training and upskilling, enabling individuals to acquire technical skills and increase their

employability. The sector's emphasis on continuous learning and development has contributed to the growth of human capital in the country.

After all, the IT sector is of great importance to the Indian economy. It is a major driver of economic growth, employment generation, foreign exchange earnings, technological advancement, innovation and skill development. The sector's contribution is not limited to direct impact on GDP but also extends to various indirect benefits that boost overall economic growth.

Conclusion-

IT plays an important role in India's economic development. The future belongs to India with a large share of work from different parts of the world and recruitment of Indian experts from all over the world. The central government has started the process of transformation in the education sector. In the next few years, the final year of the degree course will be treated as a research and development year and the curriculum is being developed based on the latest technological advancements, knowledge and skills. Apart from this, a notable feature of India's IT industry is its expansion in terms of market size, as well as its increasing share in India's Gross Domestic Product (GDP). The IT industry contributed about 8% of India's total GDP in 2017-18, up from minus 0.4 percent in 1991-92. This share is expected to increase to 10% by 2025. . The IT sector also has a large share in the Indian export market. USA is the single largest country to which our IT products and services are exported. IT will play a major role in achieving India's goal of becoming a 5 trillion dollar economy. New IT-based technologies such as remote monitoring, telemedicine etc. The digital economy is growing and the demand is increasing. The fifth generation (5G) communication technology and increasing adoption of artificial intelligence, cloud computing, big data analytics and Internet of Things will further increase the size of India's IT industry.

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