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ROLE OF INFORMATION TECHNOLOGY IN A DEVELOPED INDIA (VIKSIT BHARAT)

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ABSTRACT
The vision of making India a Developed Nation (Viksit Bharat) is not limited to economic growth alone; it also includes social inclusion, good governance, education, healthcare, innovation, and sustainable development. Information Technology (IT) plays a pivotal role in achieving this vision by transforming governance systems, service delivery mechanisms, and economic structures.

KEYWORDS: Information Technology, Internet of Thinks, digital networks, E-Governance,

INTRODUCTION

Nature of Information Technology Information Technology refers to the use of computers, digital networks, software, and communication technologies for collecting, processing, storing, and disseminating information. Modern IT includes cloud computing, artificial intelligence, big data analytics, the Internet of Things (IoT), block chain, and cyber security. Role of IT in E-Governance and Good Governance Information Technology has strengthened e-governance in India by improving transparency, accountability, and efficiency. Initiatives such as Digital India, Aadhaar, DigiLocker, UMANG, and online taxation systems have simplified public service delivery and reduced corruption. Role of Education The education sector has witnessed a major transformation through IT-enabled learning platforms such as SWAYAM and DIKSHA, virtual classrooms, e-libraries, and AI-based personalized learning systems. These initiatives have expanded access to quality education, especially in rural and remote areas. Contribution of IT in Health care In healthcare, IT has enhanced accessibility and efficiency through telemedicine services, digital health records (ABHA ID), the Ayushman Bharat Digital Mission, and AI-based diagnostic tools.

These developments support better health outcomes and inclusive healthcare delivery. Role of IT in Agriculture and Rural Development Information Technology has empowered farmers through weather forecasting applications, e-NAM platforms, digital payments, Direct Benefit Transfer (DBT), and IoT-based smart farming solutions. These tools have improved productivity, income levels, and market access.

Information Technology (IT) has emerged as one of the most significant drivers of India's economic growth and social transformation. Over the past few decades, the IT and IT-enabled services (ITES) sector has contributed substantially to GDP growth, employment generation, export earnings, and digital inclusion. Several scholars have examined the multifaceted role of IT in shaping India's development trajectory.

LITERATURE REVIEW

Kumar (2016) provides a comprehensive overview of the contribution of Information Technology to India's economic and social development. The study highlights the rapid growth of the IT and ITES sectors and their increasing share in India's GDP. Kumar argues that IT has acted as a catalyst for modernization, improving productivity across sectors and supporting social development through better access to information, education, and governance services.

Singh (2003), in an OECD working paper, critically examines India's IT sector and its contribution to broader economic development. The study emphasizes India's comparative advantage in software and IT services, driven by skilled human capital and cost efficiency. Singh notes that the IT sector has played a crucial role in export-led growth, innovation, and global integration, although its direct employment impact remains limited relative to its economic significance.

Singh and Kaur (2017) analyze the contribution of Information Technology to the growth of the Indian economy, focusing on GDP contribution, employment generation, and digital readiness. Their study finds that the IT industry has created large-scale direct and indirect employment and has strengthened India's position in the global digital economy. The authors also highlight the role of IT in improving efficiency in banking, education, healthcare, and governance.

Kanchan (n.d.) examines the contribution of the IT sector, including ITES and hardware industries, to India's economic growth. The study underscores the importance of supportive government policies, foreign investment, and infrastructure development in sustaining the growth of the IT sector. It concludes that IT has become a strategic sector for achieving long-term economic development goals.

Jeyraj (2020) focuses on the role of Information and Communication Technology (ICT) in the evolution of Digital India. The study highlights how ICT has enhanced access to public services, promoted digital inclusion, and bridged geographical barriers.

According to Jeyraj, initiatives such as e-governance, online education, and digital platforms have strengthened citizen participation and service delivery.

Kalan, Pathade, and Gaware (2025) explore the broader societal impact of technology on India's social landscape. Their study emphasizes the transformative role of digital services, financial technology, telemedicine, and artificial intelligence in reshaping social structures. The authors argue that technology-driven solutions have improved quality of life, reduced social inequalities, and enabled inclusive development.

Barnes (2013) offers a critical perspective on the IT industry's role in India's economic development. While acknowledging its contribution to growth and global recognition, the study raises concerns about workforce polarization, regional imbalances, and policy limitations. Barnes suggests that the benefits of IT-led growth are unevenly distributed and calls for inclusive policy frameworks.

Gowda (2023) examines the impact of Information Technology on society, highlighting changes in communication, globalization, and lifestyle. The study argues that IT has transformed social interactions, enhanced global connectivity, and influenced cultural and professional practices, making society more dynamic and information-driven.

Solanki and Sinha (2017) analyze innovation and development in India's IT sector, with a specific focus on the software industry. The study finds that continuous innovation in software development has contributed to business growth, employment generation, and the modernization of other economic sectors. The authors emphasize the importance of research and development for sustaining competitiveness.

Punj (n.d.) provides a historical overview of Information Technology in India, tracing its evolution from early software exports to the emergence of a globally competitive IT services industry. The study highlights policy reforms, human capital development, and global demand as key factors behind the sector's success.

Research Methodology

Research Design

The present study adopts a **descriptive and analytical research design**. The research aims to analyze the role of Information Technology (IT) in achieving the vision of a *Developed India (Vikshit Bharat)* by examining its contribution to economic growth, governance, social inclusion, education, healthcare, and innovation.

Nature of the Study

The study is **qualitative and quantitative in nature:**

- **Qualitative approach** is used to understand policy initiatives, digital transformation, and social impact.
- **Quantitative approach** is applied to analyze secondary data related to GDP contribution, employment generation, IT exports, and digital penetration.

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Sources of Data

The study is primarily based on **secondary data** collected from authentic and reliable sources such as:

- Government of India reports (NITI Aayog, Ministry of Electronics and IT, Digital India reports)
- Publications of international organizations (OECD, World Bank)
- Research journals, books, and working papers
- Reports of IT industry bodies (NASSCOM)
- Newspapers and official websites

Sampling Design

Since the study is based on secondary data, **no primary sampling technique** has been applied. Relevant reports and studies have been selected using **purposive sampling**, focusing on literature directly related to IT and India's development.

Tools and Techniques of Analysis

The following tools are used for data analysis:

- **Trend analysis** to examine growth patterns of the IT sector
- **Comparative analysis** to assess pre- and post-digital transformation impacts
- **Content analysis** for policy documents and research literature
- **Percentage and graphical analysis** for economic indicators

Period of Study

The study covers the period **2000–2025**, as this phase represents rapid growth in India's IT sector, the emergence of Digital India initiatives, and policy alignment with the *Viksit Bharat* vision.

Variables of the Study

- **Independent Variable:** Information Technology (IT)
- **Dependent Variables:**
  - Economic growth
  - Employment generation
  - Digital governance
  - Social inclusion
  - Innovation and entrepreneurship

Objectives of the Study

1. To examine the role of Information Technology in India's economic development.
2. To analyze the contribution of IT in governance and public service delivery.
3. To study the impact of IT on education, healthcare, and social inclusion.
4. To assess how IT supports innovation and sustainable development under the Viksit Bharat vision.

Hypotheses (Optional)

- H_0: Information Technology has no significant role in achieving a developed India.
- H_1: Information Technology plays a significant role in achieving a developed India.

Scope of the Study

The study focuses on India's IT sector and its role in national development initiatives such as **Digital India, Make in India, Startup India, and e-Governance**, aligning with the vision of *Viksit Bharat*.

Limitations of the Study

- The study relies on secondary data, which may have limitations in accuracy and timeliness.
- Rapid technological changes may affect the relevance of certain data.
- The research does not include field-level primary data collection.

Ethical Considerations

All data sources are properly acknowledged, and the study strictly follows academic ethics, avoiding plagiarism and misrepresentation of information.

Conclusion

This research methodology provides a systematic framework to analyze the role of Information Technology in building a developed India. By using secondary data and analytical tools, the study aims to present a comprehensive understanding of IT as a key enabler of the *Viksit Bharat* vision.

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