



Role of Start-up Ecosystem in India's Economic Growth: An Analytical Study Based on Secondary Data

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ABSTRACT

The current study analyses the role of the start-up ecosystem in India's economic development. With the expansion of the global knowledge- and innovation-based economy, entrepreneurship and the start-up culture have also grown rapidly in India. The Start-up India initiative, launched in 2016, has strengthened the entrepreneurial environment by providing institutional support, financial assistance, regulatory simplification, and innovation incentives to nascent enterprises. The present research is based on secondary data, analysing information from government reports, industry publications, and various economic sources. The study reveals that the start-up sector has significantly contributed to job creation, investment attraction, technological innovation, the expansion of digital services, and regional economic development. Start-up activity in the IT, healthcare, education, and services sectors has created new economic opportunities. Although challenges such as access to seed funding, regulatory complexities, and skills gaps remain, opportunities such as the digital and green economy, women entrepreneurship, and global market expansion can further strengthen India's start-up ecosystem in the future. Therefore, start-ups are emerging as a vital pillar of India's innovation-driven, inclusive, and sustainable economic development process.

Keywords: Start-up ecosystem, economic development, entrepreneurship, innovation, Startup India, job creation, digital economy, investment development, innovation-driven economy, India.

1.INTRODUCTION

The global economy of the twenty-first century is evolving beyond the traditional production-based model to an economy based on knowledge, innovation, and technological entrepreneurship. Globalization, digitization, and the rapid expansion of information technology have transformed the nature of economic development, making the need for innovation-driven enterprises crucial. In this changing economic landscape, start-ups have emerged as a key pillar of economic growth, job creation, technological self-reliance, and competitiveness. Recognizing global economic trends, India has placed entrepreneurship development at the centre of national economic policy. In this direction, the Government of India launched the Startup India program on January 16, 2016, with the primary objective of encouraging a start-up culture in the country, fostering innovation, and building a strong and inclusive entrepreneurial ecosystem. The primary goal of this initiative is to transform India from a nation of job seekers to a nation of job creators.



Under the Startup India Action Plan, various measures were implemented to support budding entrepreneurs, including financial assistance, tax incentives, regulatory simplification, intellectual property protection, incubation support, and industry-academia collaboration. For effective implementation of this plan, the Department for Promotion of Industry and Internal Trade (DPIIT) was appointed as the nodal department, which coordinates with various departments of the central and state governments to strengthen the start-up ecosystem. Invest India has also played a vital role in promoting investment and entrepreneurship in India. Acting as the national investment promotion and facilitation agency, it provides the first point of contact for investors and supports the implementation of key government initiatives such as "Make in India" and "Startup India." Invest India provides comprehensive guidance and facilitation to investors from inception to project establishment, and coordinates with government institutions, industry associations, private companies, and Indian embassies abroad.

India's start-up ecosystem has expanded significantly over the past decade. Thousands of start-ups have emerged in the fields of information technology, financial technology, healthcare, agricultural innovation, e-commerce, and digital services. Today, India has become one of the world's leading start-up hubs, and the number of unicorn companies is steadily increasing. Start-ups are not limited to commercial profit; they are also acting as drivers of social and economic change. The expansion of digital payment systems, financial inclusion, rural innovation, skill development, and technology-based services have made the Indian economy more dynamic, competitive, and inclusive. Therefore, the current study attempts to analyse the role of the start-up ecosystem in India's economic development, understanding how policy support, investment flows, innovation capacity, and entrepreneurial culture are jointly shaping India's economic progress. This study analyses trends in start-up growth and their economic impacts based exclusively on secondary data.

2. SIGNIFICANCE OF THE STUDY

In the current global economic landscape, innovation-driven development models have become a key pillar of economic progress. In this context, studying the role of the start-up ecosystem becomes crucial, as it transcends traditional industrial structures and promotes knowledge, technology, and creative entrepreneurship. The present study helps understand the nature and mechanisms of innovation-driven economic development, explaining how start-ups accelerate economic activity through new technologies, digital solutions, and innovative business models.

In addition, this study analyses the contribution of the start-up sector to employment generation. Currently, the availability of employment opportunities for youth is a major economic challenge, which start-up enterprises are playing a significant role in addressing through direct and indirect employment. Furthermore, the study provides an opportunity to assess changes in investment flows, entrepreneurship development, and risk-taking behavior, thereby assessing the investment climate and the direction of business innovation in the country.

3. OBJECTIVES OF THE STUDY



- a) To study the evolution of the start-up ecosystem in India.
- b) To analyse the contribution of start-ups to economic growth.

4. RESEARCH METHODOLOGY

Components	Description
Research Type	Descriptive and Analytical
Source of Data	Secondary Data
Data Sources	DPIIT, Startup India, NITI Aayog, RBI, World Bank, Industry Report
Study Duration	2022–2024
Analysis Method	Comparative and Trend Analysis

5. EVOLUTION OF THE START-UP ECOSYSTEM IN INDIA

Start-up growth in India can be understood in three major phases:

- (i) Early Phase (2010–2015)
 - Rise of e-commerce and IT start-ups
 - Initial participation of private investors
- (ii) Policy-Driven Expansion (2016–2020)
 - Startup India Scheme
 - Tax exemptions and financial assistance
 - Establishment of incubation centres
- (iii) Innovation and Global Expansion (2021–2024)
 - Growth of Unicorn Start-ups
 - Expansion of Fintech, Edtech, and Health tech
 - Impact of Digital India

6. ROLE OF START-UPS IN ECONOMIC GROWTH

Table 1: Status of Patent and Trademark Applications by Start-ups

S.N.	Category	2023-24 (January–March 2024)	2023-24 (as of 31.12.2023)	2022-23
1	Patent Applications (New Applications)	2022	2592	2041
2	Patents Converted to Start-ups	103	142	178
3	Trademark Applications	7473	9190	9798

Source - DPIIT Annual Report 2024-2025

The table above clearly shows that innovation and intellectual property creation have significantly increased with the expansion of start-up activity in India. The increasing number of patent applications indicates that start-ups are not just business entities but are also driving

technological innovation and research-based economic growth. Similarly, the high number of trademark applications reflects market competition, brand building, and entrepreneurial expansion. Thus, the start-up ecosystem is playing a vital role in innovation, investment attraction, industrial development, and the creation of a knowledge-based economy, strengthening India's overall economic growth.

Table 1: Global Start-up Ecosystem Index 2025

S.N.	Indicator	Status / Details
1	Global Ranking (India)	22nd place (19th in 2024)
2	Ranking in South Asia	1st place
3	Indian Cities in the Global Top 20	3 cities
4	Indian Cities in the Global Top 100	6 cities
5	Indian Cities in the Index	Over 40 cities
6	Bengaluru	Global rank 10
7	New Delhi	Global rank 11
8	Mumbai	Top 3 Indian cities, 16 unicorns
9	Chennai	960 start-ups, 1 unicorn
10	Ahmedabad	Global rank 132
11	Thiruvananthapuram	Global rank 593
12	Varanasi	Global rank 806

Source: Startup Blink Global Startup Ecosystem Index 2025

The above data clearly demonstrates that despite a slight decline in global rankings, India's start-up ecosystem remains robust regionally. The number one ranking in South Asia and the global presence of several cities demonstrate that start-up activity is expanding beyond metropolitan areas and fostering multi-regional economic growth. Innovation hubs like Bangalore, New Delhi, and Mumbai have become major sources of investment attraction, technological advancement, and job creation, while emerging cities are promoting regionally balanced development. Thus, the start-up ecosystem is proving to be a crucial pillar of economic growth, strengthening India's innovation-driven economy, urban development, and global competitiveness.

Table 3: Year-wise Number of Recognized Start-ups in India (2015-16 to 2022-23)

Year	Number of start-ups recognized
2015–16	252
2016–17	5,147
2017–18	8,689
2018–19	10,604
2019–20	13,798
2020–21	19,371
2021–22	26,330
2022–23	34,779

Source: DPIIT, Ministry of Commerce and Industry, Government of India

The table above clearly shows that the number of recognized start-ups in India has grown rapidly between 2015-16 and 2022-23. While only 252 start-ups were registered in 2015-16, this number increased to 34,779 by 2022-23, reflecting a strong trend of entrepreneurial growth. In particular, the start-up promotion policies introduced in 2016, the expansion of digital infrastructure, investment availability, and an innovation-enabling environment have accelerated start-up establishment. The consistent year-on-year growth indicates that India's economy is moving beyond the traditional employment structure towards an innovation-based and entrepreneurship-driven economic model. The start-up sector is not only creating new employment opportunities but has also become an important pillar of national economic development by strengthening technological development, investment attraction, and regional economic balance.

Table 4: Status of Employment Generation by Start-up Sectors (as of October 2024)

Industry Sector	Employment Generated (Number)
IT Services	2.04 Lakh
Healthcare and Life Sciences	1.47 Lakh
Professional and Commercial Services	94,060
Education Sector	90,414

Source: DPIIT Report, Government of India (as of October 2024)

The table above clearly shows that the start-up ecosystem in India has emerged as a major driver of employment. The IT services sector represents the largest employment generator, reflecting the expansion of the digital economy, while the healthcare and life sciences sector is driving both social and economic development through technological innovation. Start-up activity in the professional services and education sectors has also significantly increased skill development, the knowledge economy, and service-based employment opportunities. Thus, start-ups are creating new employment opportunities across various industry sectors, playing a vital role in strengthening income growth, human resource development, and overall economic progress.

Table 5: Progress of the Startup India Seed Fund Scheme (as of October 31, 2024)

Details	Status / Data
Scheme Inception Year	2021–22
Total Corpus Fund	₹945 crore
Scheme Duration	4 years
Start of Operation	April 1, 2021
Approved Incubator (by EAC)	213
Selected Start-ups	2,490
Total Financial Assistance Approved	₹454.04 crore
Key Areas of Assistance	Prototype development, product testing, market entry, commercialization

Source: DPIIT Report, Government of India (as of October 2024)



The table above clearly demonstrates that the Startup India Seed Fund Scheme is proving to be an effective tool for fostering economic growth by providing initial financial support to nascent enterprises. Launched with a corpus of ₹945 crore, the scheme supports innovation-based start-ups from prototype development to market entry. The approved support of ₹454.04 crore to 2,490 start-ups through 213 incubators demonstrates the government's institutional support for early-stage entrepreneurship. This encourages technological innovation, new product development, job creation, and enhances the investment climate, ultimately driving national economic growth.

7. CHALLENGES AND POTENTIAL OF THE START-UP ECOSYSTEM

India's start-up ecosystem is rapidly evolving, but it also faces several structural challenges. Lack of financial resources at the initial stage poses a major obstacle to the growth of nascent enterprises, preventing many innovative ideas from reaching commercial fruition. Additionally, high failure rates, market uncertainty, and competitive pressures in the start-up sector impact the sustainability of enterprises. Complexity of regulatory processes, compliance costs, and administrative hurdles also limit entrepreneurial expansion. Availability of skilled and trained human resources is another significant challenge, with a pronounced lack of expertise, especially in advanced technological areas. Furthermore, the limited availability of innovation infrastructure, incubation centres, and investment facilities in rural and semi-urban areas creates regional imbalances.

Despite these challenges, the Indian start-up ecosystem holds immense potential. Enterprises based on the digital economy and green technology can become key drivers of future economic growth. Rural start-up models can ensure inclusive growth by promoting entrepreneurship based on agriculture, handicrafts, and local resources. Expanding women's entrepreneurship will strengthen economic participation along with social empowerment. Indian start-ups are establishing their competitive identity in global markets through technological solutions and innovation, increasing foreign investment and export potential. Furthermore, public and private sector partnerships can strengthen the innovation ecosystem and provide new opportunities for financial support, research collaboration, and market expansion. Thus, by balancing challenges and opportunities, the start-up sector can prove to be an important foundation for India's sustainable and inclusive economic progress.

8. CONCLUSION AND SUGGESTIONS

The present study clearly demonstrates that India's start-up ecosystem has emerged as a powerful vehicle for economic development. Innovation-driven entrepreneurship has transformed the traditional economic structure, providing new impetus to job creation, technological development, investment attraction, and the expansion of the digital economy. Government initiatives such as Startup India, the Seed Fund Scheme, incubation support, and investment promotion programs have strengthened the entrepreneurial environment. Start-ups are not limited to increasing economic activity but are also making significant contributions to addressing social problems, financial inclusion, regional balanced development, and the productive use of youth.



Although challenges such as financial resource availability, regulatory complexities, a shortage of skilled human resources, and high competition remain, the start-up culture in India is steadily expanding. Through the integration of innovation, technology, and entrepreneurship, India is rapidly progressing towards a knowledge-based economy.

Suggestions

1. The availability of financial support and risk capital for early-stage start-ups should be further strengthened.
2. Facilitate enterprise establishment by simplifying and making regulatory processes transparent.
3. Institutionalize entrepreneurship and innovation education in universities and technical institutions.
4. Establish incubation centres and innovation labs in rural and semi-urban areas.
5. Provide specialized training, financial incentives, and guidance to women and young entrepreneurs.
6. Develop collaborative models between industry, academia, and government to promote research and development activities.
7. Strengthen export promotion and international investment cooperation to enable Indian startups to reach global markets.

Thus, through effective policy support, innovation promotion, and inclusive entrepreneurship development, the startup ecosystem can become a key pillar of India's long-term economic progress and self-reliance.

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