



Impact of Startups by Incubation Programmes in National Economic Development

Binoy Balakrishnan ^{1 *}, Prof. (Dr.) Subhodh Kumar Sinha ²

1. Research Scholar, Department of Management, Capital University, Koderma, Jharkhand, India

binoybkn@gmail.com ,

2. Professor, Department of Management, Capital University, Koderma, Jharkhand, India

Abstract: In recent years, there has been a significant rise in student entrepreneurship across the country, driven by a growing culture of innovation, institutional encouragement, and government-led initiatives such as Startup India. In parallel, higher education institutions have increasingly integrated entrepreneurship development into academic and co-curricular programs. The research contributes to the growing body of knowledge in entrepreneurship education and student-led startups. It specifically adds to the understanding of how incubation and mentorship programs function within academic institutions and whether they effectively translate into viable startup launches. The findings can guide policymakers at both the state and national levels in revising and strengthening startup support schemes like Kerala Startup Mission (KSUM) and Startup India. By identifying the institutional and infrastructural gaps in mentoring and incubation programs, the study can contribute to more targeted interventions and funding mechanisms for student entrepreneurs. Educational institutions offering entrepreneurship development programs can use the study to assess the effectiveness of their current incubation and mentorship services. The insights can aid curriculum developers, placement cells, and incubation centres in tailoring support mechanisms that align better with student needs and market realities.

Keywords: Startups, Incubation Programmes, National, Economic, Development

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INTRODUCTION

Entrepreneurship has become a key driver of innovation and economic growth in the 21st century. Among the various groups contributing to this entrepreneurial surge, student entrepreneurs have emerged as a unique and increasingly significant demographic. These individuals balance the dual responsibilities of pursuing academic goals and building business ventures, often navigating an ecosystem not fully designed to support their dual roles. To support and nurture these budding entrepreneurs, mentorship and incubation programs have been established across universities and entrepreneurial ecosystems. In Kerala, a state known for its literacy and progressive policies, various government and private incubation initiatives have been developed to provide financial aid, training, and mentorship to student-led startups. (Hisrich, 2017)

The rise of student entrepreneurship is fueled by a combination of factors, including the availability of technology, the growing emphasis on entrepreneurial education, and the desire for financial independence or real-world experience. Many universities have responded to this trend by establishing incubators, entrepreneurship programs, and funding opportunities. However, despite these efforts, student entrepreneurs encounter a distinct set of challenges that set them apart from other entrepreneurs.

Entrepreneurship has emerged as a pivotal force in driving economic growth, innovation, and job creation, especially in developing economies like India. In recent years, there has been a significant rise in student

entrepreneurship across the country, driven by a growing culture of innovation, institutional encouragement, and government-led initiatives such as Startup India. In parallel, higher education institutions have increasingly integrated entrepreneurship development into academic and co-curricular programs. As part of this effort, incubation centres and structured mentorship programmes have been established to support student-led startup ventures.

In the state of Kerala, which is recognized for its high literacy rate and progressive educational landscape, a number of universities and colleges have actively fostered entrepreneurial ecosystems. Organizations such as the Kerala Startup Mission (KSUM) and the Innovation and Entrepreneurship Development Centres (IEDCs) have created structured platforms for student entrepreneurs to ideate, incubate, and commercialize their innovations. Despite this encouraging ecosystem, many student-led startups struggle to move beyond the ideation stage due to a range of challenges, including limited access to investors, balancing academic responsibilities, lack of business acumen, gender-specific barriers, and inadequate institutional support. (Isenberg, 2010)

Startups

A startup is a newly established business venture that is typically in the early stages of operation and is founded to develop a unique product, service, or platform with high growth potential. Startups are generally characterized by innovation, scalability, and the aspiration to solve real-world problems using new business models or technologies.

According to the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India, a startup is defined as:

“An entity that is less than 10 years old from the date of its incorporation, has a turnover of less than ₹100 crore in any financial year, and is working toward innovation, development, deployment, or commercialization of new products, processes, or services driven by technology or intellectual property.”

Startups differ from small businesses in that they are designed for rapid growth and often rely on external funding, such as venture capital, angel investment, or government seed funds, to scale operations.

Importance of Startups in National Economic Development

Startups are widely acknowledged as crucial engines of economic growth, innovation, and social transformation in both developed and developing economies. Their ability to identify and exploit market gaps, introduce disruptive technologies, and generate employment makes them essential contributors to national development strategies (Audretsch & Thurik, 2001). As agile and innovation-driven enterprises, startups complement traditional industries by injecting dynamism into stagnant sectors and promoting competition.

One of the most visible impacts of startups is on job creation. Unlike large corporations that may grow incrementally, startups have the potential to scale rapidly, creating new employment opportunities across diverse sectors such as IT, healthcare, agritech, edtech, and clean energy (World Economic Forum, 2020). According to a NASSCOM report (2023), Indian startups alone created over 250,000 jobs directly and many more indirectly, demonstrating their significance in addressing youth unemployment.

Startups also stimulate innovation by adopting new technologies, experimenting with novel business models, and introducing new products and services. They act as vehicles for research commercialization and technology transfer, often emerging from university research labs and academic collaborations. As such, they drive the knowledge economy and help nations move up the value chain.

From a macroeconomic perspective, startups contribute to GDP growth, enhance export potential, and attract both domestic and foreign investments. Countries with vibrant startup ecosystems—such as the United States, Israel, and South Korea—have demonstrated the positive correlation between startup activity and sustained economic resilience. The startup culture fosters a competitive market, encourages risk-taking, and helps diversify the industrial base.

OBJECTIVES OF THE STUDY

1. To study on Startups in National Economic Development
2. To study on Impact of Incubation Programmes on Early-Stage Startups

STUDENT ENTREPRENEURSHIP IN INDIA AND GLOBALLY

In recent decades, student entrepreneurship has emerged as a vital force in reshaping innovation, job creation, and economic development globally. Young entrepreneurs are no longer waiting to complete their education before launching businesses. With the increasing availability of technology, startup capital, and institutional support through incubators and mentorship programmes, students have become significant contributors to entrepreneurial ecosystems across both developed and developing countries (OECD, 2021).

Globally, universities in countries like the United States, the United Kingdom, Germany, Israel, and Singapore have become vibrant centers for nurturing student startups. Prestigious institutions such as Stanford, MIT, and Oxford have developed comprehensive innovation hubs that combine academic learning with practical startup experiences. These institutions often collaborate with venture capitalists, accelerators, and corporate partners to commercialize student-developed technologies (Rideout & Gray, 2013). The startup culture in these regions is supported by structured entrepreneurship curricula, global networks, competitions, seed funding, and co-working spaces.

In countries like Singapore and Israel, government-led policies play a critical role in promoting student entrepreneurship by providing incentives, tax exemptions, and grants specifically targeted at youth and university-based startups (World Bank, 2020). Additionally, student ventures are increasingly encouraged through global platforms like the Hult Prize, Enactus, and the European Innovation Academy, which provide cross-border mentorship and exposure to global markets.

In the Indian context, student entrepreneurship is gaining substantial traction, particularly after the launch of initiatives such as Startup India (2016), Atal Innovation Mission, and state-level programs like the Kerala Startup Mission (KSUM). These programs offer early-stage funding, incubation support, and policy incentives aimed at encouraging innovation among college and university students. India has seen a surge in university-affiliated incubators, with over 500 educational institutions now hosting entrepreneurship cells or innovation hubs (NASSCOM, 2023). Many Indian startups such as Zerodha, Ola, and Flipkart were co-founded by young entrepreneurs who started conceptualizing their ideas during college. (Iyer, N., & Rao,

L., 2020)

Incubation

Incubation in the context of higher education refers to a structured support process provided by academic institutions to nurture early-stage business ideas and startups, particularly those initiated by students. It involves offering a conducive environment that includes access to physical infrastructure (like co-working spaces and labs), mentorship, seed funding, networking opportunities, technical guidance, and business development services.

The primary goal of incubation is to reduce the risk of failure in the initial stages of a startup and to accelerate its growth by helping student entrepreneurs transform innovative ideas into viable, market-ready ventures.

According to Mian, Lamine, and Fayolle (2016), business incubation is “a dynamic process of business development that supports new ventures by providing them with the resources and services necessary for their success.” Within the academic setting, incubation also aligns with educational objectives by fostering experiential learning, innovation, and entrepreneurial competencies.

In India, incubation is often promoted through institutional setups such as Innovation and Entrepreneurship Development Centres (IEDCs), Technology Business Incubators (TBIs), and Startup Cells, many of which are supported by state and central government initiatives like the Startup India Mission and Kerala Startup Mission (KSUM).

Indian Incubation Policies

India has taken significant strides in fostering entrepreneurship through structured incubation policies that promote innovation, support early-stage ventures, and create an enabling environment for startups—including those led by students. These policies are implemented through various central and state-level initiatives, often in collaboration with educational institutions, public sector undertakings, and private stakeholders.

1. Startup India Action Plan (2016)

Launched by the Government of India, the Startup India initiative forms the foundation of the national incubation policy. It includes specific support for incubation through:

- **Establishment of Incubation Centres:** Provision of ₹10 crore per centre for setting up 35 new incubators in existing institutions.
- **Startup India Seed Fund Scheme (SISFS):** Launched in 2021, it provides financial support to incubators to fund early-stage startups (₹945 crore corpus over 4 years).
- **Self-Certification and IPR Support:** Simplified compliance and subsidized patent filing.
- **Support for Innovation and Entrepreneurship Development Centres (IEDCs)** in academic institutions.

Policy Impact: Over 75 incubators have been funded under this scheme by 2024, many located in universities and technical institutions.

2. Atal Innovation Mission (AIM) – NITI Aayog

The AIM promotes innovation culture through:

- **Atal Incubation Centres (AICs):** Grants of up to ₹10 crore for setting up world-class incubation facilities.
- **Established institutions like IITs and NITs** have received AIM support to scale up incubation for student entrepreneurs.

3. National Innovation and Startup Policy (NISP) – 2019

The *Ministry of Education* introduced the **NISP** to guide higher education institutions (HEIs) in developing entrepreneurship ecosystems. Key features:

- **Curricular integration** of entrepreneurship.
- **Incubation support** and dedicated startup policies in HEIs.
- **Credit for startup activity** in academic assessment.
- **Flexible academic structure** to allow students to pursue entrepreneurship while studying.

Impact of Incubation Programmes on Early-Stage Startups

Incubation programmes serve as a launchpad for early-stage startups by providing essential resources, mentorship, and infrastructure. Their structured support significantly enhances a startup's chances of survival and growth. Below is a detailed analysis of their impact:

1. Increased Survival Rates

- Startups in incubators have a higher survival rate (60-70%) compared to those operating independently (10-20%).
- Reduced early-stage failures due to guided validation of business models.

2. Access to Funding & Investor Networks

- Incubators connect startups with angel investors, VCs, and government grants.
- Provide pitch training and demo days to attract funding.
- Example: Kerala Startup Mission (KSUM) has helped startups secure seed funding. (KSUM. , 2023).

3. Infrastructure & Resource Support

- Offer low-cost office spaces, labs, and tech tools (software, prototyping equipment).

- Reduce operational costs through shared resources (legal, accounting, IT support).

4. Mentorship & Expert Guidance

- Provide industry-specific mentors (tech, healthcare, agribusiness).
- Help refine product development, marketing, and scaling strategies.

Indian Startup Ecosystem

The Indian startup ecosystem has evolved into one of the fastest-growing and most dynamic entrepreneurial landscapes in the world. With over 100,000 startups recognized by the Department for Promotion of Industry and Internal Trade (DPIIT) as of 2024, India ranks among the top three startup hubs globally—after the United States and China. The ecosystem is driven by a convergence of factors including a large pool of young talent, growing digital penetration, strong government support, and increasing investor interest. (Joshi, N, 2023)

Key Features of the Indian Startup Ecosystem

- 1. Government Support:** The Government of India launched the Startup India Initiative in 2016 to foster innovation and entrepreneurship. It offers various benefits such as tax exemptions, self-certification, access to funding through the Fund of Funds for Startups (FFS), and infrastructure support through Atal Incubation Centres and Startup Hubs.
- 2. Youth Entrepreneurship:** India has a large demographic dividend, with over 65% of its population below the age of 35. Student entrepreneurs are increasingly contributing to the startup ecosystem, supported by institutional incubation centres and academic entrepreneurship programmes.
- 3. Sectoral Diversity:** Indian startups span across sectors including fintech, edtech, healthtech, agritech, cleantech, and e-commerce. Cities like Bengaluru, Mumbai, Delhi-NCR, and Hyderabad are key startup hotspots, while tier-2 and tier-3 cities like Kochi, Jaipur, and Indore are rapidly emerging as new centres of innovation. (Keat, O. Y., Selvarajah, C., & Meyer, D., 2011)

Importance of fostering entrepreneurial skills among students

Entrepreneurial skills are essential in today's dynamic and innovation-driven world. By equipping students with these skills, educational institutions, policymakers, and communities prepare them not only to excel in business but also to contribute meaningfully to society and the economy. Entrepreneurship encourages students to think outside the box and solve real-world problems creatively. It develops skills like critical thinking, ideation, and the ability to identify gaps in the market, which are vital for innovation.

The global job market is rapidly changing, with new industries emerging and traditional roles evolving. Entrepreneurial skills such as adaptability, problem-solving, and leadership prepare students to navigate uncertain and competitive work environments. Learning how to create and manage a business fosters a sense of self-reliance and financial independence. Students gain confidence in their ability to make decisions, take calculated risks, and achieve goals. Entrepreneurs play a vital role in job creation and economic development. Students equipped with entrepreneurial skills can launch startups that contribute to

local and global economies by generating employment and fostering innovation.

Entrepreneurship involves overcoming challenges, failures, and uncertainties. Developing entrepreneurial skills helps students build resilience, persistence, and emotional intelligence, enabling them to handle setbacks constructively. Social entrepreneurship focuses on addressing pressing issues such as poverty, education, and sustainability. Fostering entrepreneurial skills inspires students to create businesses that contribute positively to society while being financially viable.

Entrepreneurial activities encourage teamwork, effective communication, and leadership. These skills are critical not only for business success but also for personal and professional growth in any field. Many traditional education systems focus heavily on theoretical knowledge. Entrepreneurship provides hands-on learning opportunities, bridging the gap between academic concepts and real-world application. Entrepreneurship teaches students to be proactive learners, continually seeking knowledge to improve their skills and adapt to changing environments. This mindset of lifelong learning is essential in an era of rapid technological advancements.

CONCLUSION

Entrepreneurship has emerged as a pivotal force in driving economic growth, innovation, and job creation, especially in developing economies like India. In recent years, there has been a significant rise in student entrepreneurship across the country, driven by a growing culture of innovation, institutional encouragement, and government-led initiatives such as Startup India. In parallel, higher education institutions have increasingly integrated entrepreneurship development into academic and co-curricular programs. The research contributes to the growing body of knowledge in entrepreneurship education and student-led startups. It specifically adds to the understanding of how incubation and mentorship programs function within academic institutions and whether they effectively translate into viable startup launches. It fills the gap in literature regarding the intersection of education, institutional support, and entrepreneurial outcomes in the Indian context, particularly in Kerala. The findings can guide policymakers at both the state and national levels in revising and strengthening startup support schemes like Kerala Startup Mission (KSUM) or Startup India. By identifying the institutional and infrastructural gaps in mentoring and incubation programs, the study can contribute to more targeted interventions and funding mechanisms for student entrepreneurs. Educational institutions offering entrepreneurship development programs can use the study to assess the effectiveness of their current incubation and mentorship services. The insights can aid curriculum developers, placement cells, and incubation centres in tailoring support mechanisms that align better with student needs and market realities. Supporting student entrepreneurs has the potential to generate employment, drive innovation, and contribute to regional economic development.

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