

The Evolving Start-Up Ecosystem in India: Impact on the Economy and the Role of Educational Institutions

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E-mail : effulgence@rdias.ac.in, Website : www.rdias.ac.in<http://effulgence.rdias.ac.in/user/default.aspx><https://dx.doi.org/10.33601/effulgence.rdias/v23/i1/2025/107-120>**Mr. Ravi Shankar Rai**¹ ✉**Prof. Asha Prasad**²

Abstract

Entrepreneurship in India has emerged as a powerful force driving economic growth and innovation. The country's favourable business environment, coupled with the entrepreneurial spirit of its youth, has created a thriving start-up ecosystem. Educational institutions, in conjunction with government initiatives, are playing a vital role in nurturing entrepreneurship and fostering a culture of innovation. Educational institutions are embracing a new role that extends beyond traditional research and teaching to include technology transfer and commercialization. These institutions are also enhancing their contribution to the entrepreneurial ecosystem through integrated incubation systems that foster start-up growth and innovation. Business incubators (BIs) within educational institutions facilitate collaboration between academia, corporate sponsors, governments and society, creating a synergistic environment conducive to start-up success. The Indian government has taken significant steps to support start-up development and business incubation. Various government schemes, such as TBI, TIDE and AIM, have been implemented to provide necessary resources and assistance to entrepreneurs. Furthermore, educational institutions are emerging as critical engines of growth in this knowledge-based economy, fostering entrepreneurship through research output, technology transfer and business incubation. This paper discusses the significant role educational institutions and government policies play in supporting start-up development and economic advancement in India.

Keywords: *University entrepreneurship, Business incubators, Government initiative for entrepreneurship, Academia based business incubators, Start-ups in Universities.*

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INTRODUCTION

In recent years, India has witnessed a dramatic surge in entrepreneurial activities, fundamentally altering its economic landscape. This shift is marked by a rising preference among young college students for start-up ventures over traditional, stable employment in established companies. Factors contributing to this trend include improved access to technology, a supportive ecosystem and an increasing willingness to embrace risk. With an average age of 28, Indian entrepreneurs are among the youngest globally, underlining the dynamic nature of the country's start-up environment.

Entrepreneurship in India has experienced unprecedented growth, with start-ups now significantly influencing the nation's economy. This transformation is largely driven by the enthusiasm and creativity of India's college students, who have shifted from traditional salaried employment to entrepreneurial ventures. The IBM Institute for Business Value, in collaboration with Oxford Economics, conducted a comprehensive survey of 1,300 Indian executives, including start-up entrepreneurs, venture capitalists, government leaders, established company executives, and educational institution leaders, to explore the effects of this burgeoning start-up ecosystem on the broader economy. Findings reveal that India's economic openness, skilled workforce, and large domestic market provide substantial advantages for start-ups. Furthermore, educational institutions are emerging as critical engines of growth in this knowledge-based economy, fostering entrepreneurship through research output, technology transfer, and business incubation.

This paper examines the important role that educational institutions and government policies play in promoting start-up development and economic growth in India. The institutionalization of entrepreneurship development through educational institutions with the incubation policies in India traces back to 1955 with the establishment of the

National Small Industries Corporation (NSIC) incubators. Over the decades, the Indian government has progressively developed a range of incubation schemes to foster entrepreneurship, focusing on various sectors including technology, biotechnology, and electronics. This paper examines the evolution of these policies, their implementation through various incubation programs, and their impact on start-ups. By analyzing schemes such as Technology Business Incubators (TBIs), Technology Incubation and Development of Entrepreneurs (TIDE), Biocubators Nurturing Entrepreneurship for Scaling Technologies (BioNest), and Atal Incubation Centres, this study highlights the objectives, support services, and outcomes of these initiatives.

The Paradigm Shift: Entrepreneurial Universities

Educational institutions have long been recognized for their dual roles in research and teaching. However, over the last 30 to 40 years, there has been a significant paradigm shift, with these institutions increasingly contributing to entrepreneurial activities. This shift reflects a broader recognition of their potential to drive economic growth and social development through innovation and start-up support. Traditionally, educational institutions were primarily engaged in research and teaching. However, recent trends have demonstrated a growing emphasis on technology transfer, patenting, and commercialization, positioning these institutions as key players in the entrepreneurial landscape. According to Li et al. (2020), this shift represents a move towards the concept of "entrepreneurial universities," where institutions actively contribute to economic development through innovative practices and entrepreneurial support.

Academic research conducted over the past few decades highlights a significant rise in entrepreneurial activities among academics. Studies by Miranda et al. (2017) and Thursby & Thursby (2011) reveal that a growing proportion of academics are involved in mentoring and supporting new start-ups. This trend underscores the expanding role of

educational institutions in fostering entrepreneurship and supporting the commercialization of research. The increasing focus on entrepreneurship has been accompanied by a notable rise in research outputs related to patenting, licensing, and start-up development. Research by Algieri et al. (2013) indicates that educational institutions are generating a substantial number of patents and licenses, further emphasizing their role in driving innovation. This trend aligns with the broader shift towards entrepreneurial universities, where institutions actively engage in technology transfer and commercialization activities.

Across the world, universities are becoming increasingly entrepreneurial to generate income through contract research or licensing, stay competitive, and adhere to government policy guidelines of government (Guerrero et al., 2015). This can be achieved by stimulating students to start entrepreneurial activities; however, there is no clear theory to encourage students to become entrepreneurs. Students play an important role in university entrepreneurship (Boldureanu et al., 2020). The extent of entrepreneurship and start-up activity in an institution can also be determined by students' awareness and understanding of entrepreneurship and the start-up ecosystem. Very few studies explore academic entrepreneurship in India, especially with respect to students' perceptions (H. Trivedi, 2014).

University incubators have a long history of supporting innovation and commercialization by offering physical space, human capital, financial sources, and other resources (Smith & Zhang, 2012). Universities now rely on building the skills necessary to foster innovation, entrepreneurial thinking, the development of organizations and entrepreneurial leaders, and the improvement of people's standards of living, rather than just teaching students, advancing research, or even transferring knowledge through research contracts, licenses, and spinoffs (Klofsten et al., 2019; Leih & Teece, 2016). To assist entrepreneurs, university incubators require

four fundamental resources: people, money, organizations, and technology (Grimaldi & Grandi, 2005). Similarly, researchers contend that university incubators seek to advance commercialization through the establishment of spin-offs that enhance the promotion of new ideas, research, commercialization, and the cultivation of entrepreneurs (Soetanto & Jack, 2016). Some researchers have verified that to maximize commercialization for the good of society, the OECD (Organisation for Economic Co-operation and Development (OECD) pushed incubator service providers to collaborate with universities (Rasmussen et al., 2006). Some researchers have acknowledged that university incubators have recently begun to help entrepreneurs more than other types of institutions (Stal et al., 2016). University incubators play a vital role in supporting leadership and fostering an entrepreneurial culture in addition to helping start-ups. As a result, the author clarified the crucial importance of the relationship between commercialization and innovation as two facets of entrepreneurship (Ierapetritis, 2019). The commercialization of research and technology outcomes can benefit entrepreneurs and facilitate the implementation of novel approaches and explorations (Hoskisson et al., 2011). On the one hand, BIs should be utilized to provide innovative methods and ideas to students and entrepreneurs. Another feature of BIs is their competitiveness (Carvalho & Galina, 2015). BIs can facilitate a shift to a knowledge-based economy, boost the creation of new and existing businesses, and strengthen their competitive advantages by implementing significant changes to effective financial guidelines and strategic management (Kiani Mavi et al., 2019).

Researchers have clarified that the benefits of BI-university cooperation extend to students, institutions, entrepreneurs and incubators themselves (Fernández Fernández et al., 2015). In addition to well-trained human resources and specialists in particular fields, educational institutions provide well-equipped laboratories with

computer systems that are beneficial to entrepreneurs (Ferreira et al., 2019). Conversely, students may apply their knowledge to actual business situations, encouraging student entrepreneurship. One of the biggest benefits for educational institutions is the strengthening of relationships between the academic and corporate sectors through the commercialization of research findings and technical advancements (Perkmann et al., 2013).

Government policies and support for business incubation

The government of India directed educational institutions to promote the start-up ecosystem has stimulated interest. Recent success stories of start-ups have strengthened start-up initiatives among students, and the informal start-up ecosystem in Indian cities has further made it convenient to create start-ups. The Indian government has initiated start-up promotion and funding programs to improve entrepreneurial and start-up culture. Educational institutions take a range of steps to attain their entrepreneurial goals, such as research collaborations with industry, patent applications, concept spinoffs into new businesses, educating highly qualified personnel on entrepreneurial skills, and company incubators (Siegel & Wright, 2015; Somsuk & Laosirihongthong, 2014).

The function of business incubator services in educational institutions and their relationship with the performance and sustainability of start-ups in the market have been studied by academics and industry professionals (Li et al., 2020; Paoloni & Modaffari, 2022; Zapata-Guerrero et al., 2020). Researchers have identified the use of BIs to enhance start-up performance (Paoloni & Modaffari, 2022). Various studies have highlighted the significance of BIs' support methods for the long-term and prosperous performance of start-ups (Bergmann & Utikal, 2021). According to recent research, BIs are a key component of the sustainability and growth (Carvalho & Galina, 2015). Colombo and Delmastro

(2002) argued that university-affiliated firms in Italian research parks expand faster than similar firms outside the parks. The main advantage mentioned here is the expansion of R&D facilities, especially cooperation with universities. Ferguson and Olofsson (2004) conducted a similar study comparing parks and park companies in a Swedish university science park. They conclude that in terms of survival, firms inside the park fared better than their competitors outside the park. Patton et al. (2009) argued that key factors include a steady supply of new ideas, empathy with founders, building and maintaining internal and external networks, and a successful exit strategy for companies exiting the incubator.

Although BIs are becoming increasingly crucial to the viability and effectiveness of start-ups, little is known about the processes by which BIs create support capacities and their effectiveness in the Indian setting. Previous research appears to indicate that BIs' support capacity competency results in successful start-ups in various ways (Marzocchi et al., 2019). For instance, there is proof that support capacities, which are a collection of BIs' skills, help emerging businesses adapt to environmental risks and serve as a foundation for sustainability (Lamine et al., 2018). Support capacities subsequently offer stability and foster the development of higher-order capabilities that influence the emergence of market responsiveness to endure unpredictable and unstable circumstances. Research on the development of support capacities as a higher-order capacity of incubator services is also recommended by the body of existing research (Ravichandran, 2018; Tritoasmoro et al., 2022).

The following gaps in the literature were addressed in this study. First, the assistance strategies used by academic institutions connected to BIs for start-up companies were examined in the context of the current market. The study's goal is to determine how effectively Indian educational institutions that are linked with BIs mobilize both internal and external resources to demonstrate their support capabilities

for start-ups' sustainable development. Second, there has not been much research on how BIs establish support capacity despite the growing emphasis on achieving it and its critical relationship with start-up performance (Tavoletti, 2013; Hong & Lu, 2016; Ismail, 2022). Therefore, by defining support capacity precisely and outlining its characteristics in the context of BI-connected educational institutions, this study addresses this information gap. A number of scholars have recognized the importance of determining the components and metrics of support capacity, as well as creating a higher-order element of support capacity (Hackett & Dilts, 2008; Tritoasmoro et al., 2022). Therefore, the goal of this study was to prove that support capacity is a higher-order factor and to create a valid and reliable instrument to evaluate support capacity.

Incubation centers arrange and make available services, resources, and guidance to new entrepreneurs (Albort-Morant & Oghazi, 2016). Their services include providing the space for working in a commercial setup, mentoring, and guiding towards organizational management, helping new entrepreneurs to formulate a successful business plan, arranging administrative services on a shared basis, providing technical support, arranging networking that supports start-up business, proper guidance and advice on intellectual property rights, identification of different sources of financing, guidance in knowing the markets, and suggesting plans of exit, if required (Gerlach & Brem, 2015). The concentration of the incubator systems helps fast-growth start-ups, which may eventually come up with innovative ideas (Li et al., 2020). Start-ups could be instrumental in positively impacting the local economy positively (Partridge et al., 2020).

1. Governmental Business incubation schemes

The institutionalization of the Indian incubation policy emerged in 1955 when the incubator was established by the National Small Industries Corporation (NSIC) under the Ministry of Small and Medium Scale Industries (MSME), Government of

India. As per the official NSIC website,

“NSIC Training-cum-Incubation Centres provide an opportunity to first generation entrepreneurs to acquire skill for enterprise building and also incubating them to become successful small business owners. At these centres, exposure in all areas of business operations are being provided such as business skills development, identification of appropriate technology, hands on experience on working projects, project / product selection, opportunity guidance including commercial aspects of business.”

(Retrieved from nsic.co.in dated 17 Jan, 2024)

The major focus of NSIC was to create small businesses and receive support from the National Science and Technology Development Board (NSTDB) in 1982 in the form of a technology business incubator (TBI). TBIs have been established under premier educational institutions of management and engineering education, such as IIMs, IITs and other premier educational institutions. TBIs focus on improving the survival rates of start-ups.

“National Initiative for Developing and Harnessing Innovations (NIDHI)- Technology Business Incubator (TBI) aims to nurture start-ups through scouting, supporting and scaling of innovations. The key stakeholders of NIDHI includes various departments and ministries of the central government, state governments, academic and R & D institutions, mentors, financial institutions, angel investors, venture capitalists and private sectors. NIDHI is developed keeping in line the new national aspirations and on the basis of DST's experience of three decades, in promoting innovative start-ups.”

(Adapted from GUIDELINES AND PROFORMA FOR SUBMISSION OF PROPOSAL under NIDHI-TBI. Published by Government of India Ministry of Science & Technology Department of Science & Technology National Science & Technology

Entrepreneurship Development Board Technology Bhawan, New Mehrauli Road New Delhi-110016 (May 2016))

TBIs have attempted to provide incubation services to start-ups in collaboration with educational institutions, including market survey/marketing assistance, business planning and training, organizing management/technical assistance, assistance in obtaining statutory approvals, information dissemination on product ideas/technologies, syndicating finances, ranging legal and IPR services, using facilities of the Host Institute (HI) at nominal charges, work space for a limited period, and common facilities of TBI such as communication, conference, and computers. Besides providing a host of services to new enterprises (and also to existing SMEs in the region), it also facilitates an atmosphere congenial for their survival and growth. The essential feature of a TBI is that tenant companies leave the incubator space within to 2-3 years. In the incubation policy background setup by the TBIs, the Ministry of Electronics and Information Technology (MeitY) initiated the Technology Incubation and Development of Entrepreneurs (TIDE) scheme in 2008, in which premier educational institutions collaborated to establish incubation centers. In the TIDE scheme, the focus is on the development of start-ups in the domains of information & communication technology and electronics. The scope statement of the TIDE scheme is as follows:

“Recognizing the importance of Technology Incubation, many institutions of higher learning have already taken initiatives to nurture this activity. These include policy measures, infrastructure support, entrepreneurial training, IPR facilitation, and create a framework to nurture technology incubation. The incubation centers provide a host of services to new enterprises and facilitate linkages that are congenial for their survival and growth. The centre also network with Angel Investors and Venture Capitalists who provide mentoring and financial support to the start-up companies and

enable the tenant companies to mature over a period of 2-3 years and graduate to a commercial place to do the actual business. The involvement of the faculty of the institute in the technology start-up activity reinforces teaching and research, strengthens linkages between education and industry, and also better aligns education to meet market requirements.”

(Retrieved from meity.co.in dated 17 Jan, 2024)

The Biotechnology Industry Research Assistance Council (BIRAC) is a not-for-profit Public Sector Enterprise, set up by the Department of Biotechnology (DBT), Government of India, which has set up Bioincubators Nurturing Entrepreneurship for Scaling Technologies (BioNest) incubators in 2012, again with close collaboration with premier educational institutions such as TBI and TIDE. As per the BioNest guidelines published on 07.07.2021 “BioNEST (Bioincubators Nurturing Entrepreneurship for Scaling Technologies) scheme is a dedicated scheme to create globally competent bioincubation facilities across the country. The BioNEST scheme championed the mandate of the Startup India Action Plan announced by Hon’ble Prime Minister on 16th Jan 2016 that targeted scaling up of biotech startup ecosystem.”

In 2016, Atal Incubation Centres (under the Atal Innovation Mission) was set up with academic collaboration by NITI Aayog (National Institution for Transforming India), Government of India. In 2019, TIDE 2.0 has been launched by Ministry of Electronics and Information Technology (MeitY) with more number of incubators has been inducted in this scheme. Following table 3.1 demonstrating the policies and objectives of the various incubation schemes discussed here.

Table 3.1 Incubation schemes in India

Schemes	Year	Policies and objectives
NSIC (MSME) incubators	1955	To help commercialization of the technology developed by the start-ups in collaboration with host institutions predominantly in agriculture and food processing sector.
TBI (NSTDB)	1982	To provide collaborative stage for the start-ups to get seed fund and commercialization of developed technological products in association with the academic institution, R&D lab or individual.
TIDE and TIDE 2.0 (MeitY)	2008 & 2019	To support ICT & E based start-ups in terms of seed funding, IPR development and incubation support predominately in area of AI, robotics, block chain, IoT and electronics.
BioNest (BIRAC)	2012	To provide support of bio-incubation facilities across the country. It is primarily dedicated to Biotech start-ups and Bio incubators in association with academic institution / research institutes/ hospitals.
Atal Incubation Centres (Niti Aayog)	2016	To support start-ups with incubation facility, product commercialization, IPR, investor access, seed funding in association with academic institutions, R&D institutes as well as non-academic institutes.

2. Support services offered by Bis

A variety of services are provided by the incubator cell to incubated users. These services include assistance with accounting and financial management, presentation skills, business etiquette, business basics, creating a workable business plan, and incubator facilities, such as technology, equipment, and office support. Market research, networking events, high-speed Internet access, availability of bank loans, angel investors, venture capital advice from mentors and advisory boards, selection of management teams, technology, exhibition, awareness-raising events, entrepreneurial development, and intellectual property management assistance in filing paperwork and patents (Diamantopoulou et al., 2018).

In practice, incubation can have several consequences for start-up businesses. By altering or accelerating the entrepreneurial process of business growth, incubation can impact new companies (Ayatse et al., 2017). Although incubators have been linked to incubatees' businesses growing faster, the same procedure might result in "life support," which extends the period before a firm fail. When leaving an incubator's support, incubatees may encounter a high-risk time of high risk (Ayatse et al., 2017). The process of selecting companies

with strong growth potential is unpredictable. Apart from the facilities and services that are directly offered by the incubator and its staff members, incubators also facilitate quicker integration of start-ups into external networks. They act as hubs for meetings with key advisors, including public relations and marketing agencies, bankers, investors, and accountants (Bergek & Norrman, 2008; McAdam & McAdam, 2006). Incubators affect emerging businesses through

- Providing credibility through association; providing shared, cost-effective access to expert facilities; and providing a recognizable, adaptable incubation environment.
- Provide company coaching and support, such as market research and strategic insights, which are frequently funded.
- Giving people access to more skills and resources, such as funding and legal assistance.

To help businesses, the incubator uses its current network of entrepreneurial allies as well as outside consultants. In addition, the encouraged activity is peer-to-peer networking. It is critical to match incubator services to business demands (McAdam and McAdam, 2006). The requirements for business assistance and new venture activities vary depending on factors, including past entrepreneurial experience, industry, and region.

3. Support services and BI performance

Business incubators are generally understood by research scholars as organizations that focus on providing targeted services and support to entrepreneurial start-ups to accelerate their growth, financial stability, and operational stability (Bergek & Norrman, 2008; Masutha & Rogerson, 2015). Strong emphasis is placed on knowledge agglomeration, resource sharing, innovativeness, and competitiveness by fostering an environment that helps start-ups overcome the obstacles associated with their pursuit of entrepreneurial initiatives (Phan et al., 2005; Ucar & Koch, 2016).

The support services that BIs provide to the businesses they incubate have a significant impact on their performance. A business incubator is defined as "shared office-space facility that seeks to provide its incubatees with a strategic, value-adding intervention system of monitoring and business assistance" (Hackett & Dilts, 2004). In another widely used definition, BI is described as "a multitenant facility with on-site management that directs acceleration of the successful development of entrepreneurial companies through an array of business support resources and services, developed or orchestrated by incubator management, and offered both in the incubator and through its network of contacts" (Harper-Anderson & Lewis, 2018).

Incubators function for two fundamental reasons. First, BIs solve market failure (Phan et al., 2005), Second, incubators expedite the entrepreneurial process and provide assistance for new businesses (Bergek & Norrman, 2008). However, incubators' primary objective may be summed up as creating successful businesses that will continue to become independent and financially stable (Harper-Anderson & Lewis, 2018; McAdam & McAdam, 2006).

The present economy depends on BIs because they assist in the first phases or foundations of business development. BIs often support founders with facilities and entrepreneurial concepts (Klofsten et al., 2019). They also increase survival rates and accelerate the expansion of small and medium-sized businesses (Harper-Anderson & Lewis, 2018). BIs are recognized as strategic instruments for a firm's competitiveness because they help both start-ups and established businesses, which fosters the growth of industry innovation (Ismail, 2022; Soetanto & Jack, 2016). Businesses can also benefit from the tangible and intangible resources offered by BIs, which are crucial building blocks of economic and corporate growth. In addition to offering physical spaces, they also facilitate networking, offer logistical assistance, and offer other consulting

services to help businesses expand (Tritoasmoro et al., 2022). Businesses can save on expenses while increasing their start-up rate because of their all-inclusive help. Moreover, BIs serve as facilitators that encourage partnerships between academic institutions and communities. The technology transfer and innovation systems of entrepreneurs can be strengthened by this assistance (Lamine et al., 2018). In addition to having significant positive and negative impacts on business incubation, BIs are essential for the exchange of information and materials within the academic ecosystem (Fernandez, 2015). Currently, they are recognized as significant accelerators capable of fostering the growth of novel subjects, such as the biotechnology sector (Masutha & Rogerson, 2015).

The aforementioned roles and activities demonstrate that BIs provide new firms with several noteworthy benefits such as knowledge transfers (McAdam & McAdam, 2006) and self-sustainability (Phan et al. 2005). Economic growth and sustainability are impacted by the development and enhancement of firms and enterprises (Bergmann & Utikal, 2021). Incubators must consider and handle a number of management factors to meet their ambitious objectives. Since essential elements have been found to be the most significant drivers of incubators' success and accomplishments experimentally (Brown et al., 2018), their appropriate identification, application, and management are the top goals for BIs (Hoskisson et al., 2011).

To assist entrepreneurial activities, BIs should consider important elements and translate them into actions that become strategies (Phan et al., 2005). Determining the degree of objective attainment may be aided by measuring behaviors (Masutha & Rogerson, 2015). As incubators consider the dynamic incubation process and specify the development aim, key performance indicators (KPIs) are crucial in determining the effectiveness of BIs (Fernández Fernández et al., 2015).

4. The National Policy for Skill Development and Entrepreneurship, 2015

It outlines a policy framework designed to empower young entrepreneurs and foster a dynamic ecosystem for start-up development. Key aspects of this framework include:

Establishing a nationwide platform: The policy envisions a web and mobile-based platform connecting stakeholders across the entrepreneurial ecosystem, facilitating collaboration and knowledge sharing.

Aligning entrepreneurship with technology: The policy emphasizes the need to align entrepreneurial initiatives with cutting-edge technological advancements. This includes leveraging platforms like AIM and SETU to support both technology-driven start-ups and self-employment ventures. (National Policy for Skill Development and Entrepreneurship, 2015, pp. 36-37)

These policy directions, coupled with the success stories of existing start-ups and the burgeoning informal ecosystem in Indian cities, have served to fuel student interest in entrepreneurship and provide a conducive environment for launching new ventures. Additionally, the government has implemented various programs to promote and fund start-ups, further bolstering the entrepreneurial spirit.

The Role of Educational Institutions:

Educational institutions play a crucial role in realizing these goals by undertaking a range of initiatives, including:

Research collaboration with industry: Fostering partnerships between universities and businesses to encourage knowledge transfer and address industry challenges.

Patent applications: Encouraging university researchers to pursue patenting of their research

findings, potentially leading to spin-offs and new ventures.

Entrepreneurship education: Integrating entrepreneurial skills development into academic curriculum to equip students with the knowledge and skills necessary to succeed in the business world.

Company incubators: Establishing in-house incubators that provide budding entrepreneurs with essential resources, mentorship, and networking opportunities. (Siegel & Wright, 2015; Somsuk & Laosirihongthong, 2014)

DISCUSSION

There are several critical attributes that contribute to the success of Indian start-ups, which are:

Economic Openness: More than 76% of Indian executives cited the country's economic openness as a major business advantage. This openness facilitates ease of doing business and access to global markets.

Skilled Workforce: Approximately 60% of respondents identified India's skilled workforce as a significant asset. The availability of a highly educated and technically proficient labour pool supports innovative start-up activities.

Large Domestic Market: 57% of executives noted that India's substantial domestic market provides a significant advantage by offering a broad consumer base for start-up products and services.

These factors collectively enhance the competitive edge of Indian start-ups and contribute positively to the country's economic growth.

Educational institutions in India are increasingly recognized as pivotal to economic growth and social development. Over the past three to four decades, academic research has highlighted the growing involvement of educational institutions in mentoring

and supporting new start-ups (Miranda et al., 2017; Thursby & Thursby, 2011). The rise in research output related to patenting, licensing, and start-up development reflects a paradigm shift towards what is now termed "entrepreneurial universities" (Li et al., 2020).

Educational institutions are embracing a new role that extends beyond traditional research and teaching to include technology transfer and commercialization. These institutions are also enhancing their contribution to the entrepreneurial ecosystem through integrated incubation systems that foster start-up growth and innovation. Business incubators (BIs) within educational institutions facilitate collaboration between academia, corporate sponsors, governments, and society, creating a synergistic environment conducive to start-up success.

The Indian government has actively engaged with academic institutions to support start-up development and business incubation. Several government schemes, including Technology Business Incubation (TBI), Technology Incubation and Development of Entrepreneurs (TIDE), and Atal Innovation Mission (AIM), have been implemented to promote start-up growth. Key policy decisions include fostering collaborations with higher educational institutions, particularly management and engineering colleges, to drive start-up development and innovation across the country.

Incubation programs have demonstrated positive impacts on start-ups, including accelerated business growth and enhanced survival rates. However, some start-ups may experience challenges post-incubation, such as a period of high risk and dependency on external networks (Ayatse et al., 2017). Incubators also play a critical role in providing credibility, shared resources, and access to expert networks, which contribute to the overall success of incubated ventures (Bergek & Norrman, 2008; McAdam & McAdam, 2006).

The role of incubators in supporting entrepreneurship has gained significant recognition in India since the mid-20th century. Initially driven by the NSIC's efforts to support small businesses, subsequent policies and programs have expanded the scope and scale of incubation efforts. This article reviewed the history of incubation policies in India, focussing on significant initiatives and their contributions to the start-up ecosystem.

CONCLUSION

India's start-up ecosystem is evolving rapidly, driven by the innovation and dynamism of its young entrepreneurs. The advantages offered by India's economic openness, skilled workforce, and large domestic market significantly bolster start-up success. Educational institutions are playing an increasingly important role in this ecosystem by promoting research, technology transfer, and incubation. Government policies supporting collaboration with academic institutions further enhance the environment for start-ups. Collectively, these factors contribute to the positive impact of start-ups on India's economy and underscore the importance of continued support for this vibrant sector.

The evolution of incubation policies in India reflects a growing commitment to fostering entrepreneurship and innovation. From the early initiatives by NSIC to the establishment of specialized schemes like TIDE, BioNest, and AICs, the Indian government has continuously expanded its support for start-ups. The diverse range of services and support provided by these programs underscores their importance in nurturing new ventures and driving economic growth. Future research should focus on evaluating the long-term impact of these policies and exploring opportunities for further enhancing the incubation ecosystem.

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