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Research Article

Academic Incubators

A Conceptual Enquiry on the Role of Academic Incubators in Nurturing Entrepreneurship among Students

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Educated youth of India are finding it difficult to secure jobs and have an economically viable livelihood. To help the economy grow and create new jobs, the government needs to encourage new ideas and put money into the education of the next generation of workers. Entrepreneurship development can be a big part of the fight against unemployment and the growth of the economy as it makes possible conversion of innovative ideas into new businesses or start-ups resulting in creation of jobs. The government and the higher education institutes (HEIs) should work together to create an environment that is conducive to the launch of new businesses and shift the mindset of educated young people towards the pursuit of self-employment rather than job hunting. Many state governments, in conjunction with the central government, have enacted legislation to provide assistance to newly founded firms in their respective areas. And higher education institutions have also established incubation centers to nurture and assist entrepreneurial fervor among students. In a start-up ecosystem, in addition to the government, there are a wide variety of other institutions and ecosystem facilitators that provide assistance to start-up units. Some examples of these ecosystem facilitators and institutions include incubators, accelerators, educational institutions, research institutions, investors, and mentors (NGOs). Higher education institutions and universities are playing a significant role in the promotion of new business ventures and the provision of platforms for enterprise creation. The study hypotheses, given the current entrepreneurial ecosystem in India, that entrepreneurship among students can be directly linked to the support offered to them by the academic incubators. The current study proposes a model for the establishment and operation of startup incubators within academic institutions, so that entrepreneurial fervour can be nurtured among students.

Keywords: Academic Incubators, Higher Education Institutes, Investors, Mentors, Startup

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1. Introduction

According to the NASSCOM (2019) research, India has the world's third largest startup ecosystem, behind the United States and China, with over 61,400 startups recognised by the Department for Promotion of Industry and Internal Trade (DPIIT), with at least 14,000 recognised from only 733 in 2016-17, during fiscal 2022, according to the Economic Survey 2021-22. The report also revealed an increase in the number of space tech startups in India. The sector's startup count has risen from 11 in 2019 to 47 in 2021A newly established entrepreneurial venture in which the founders build a one-of-a-kind product or service along with a business strategy that is scalable is referred to as a start-up. The 'Startup India' programme launched by the Government of India acts as a facilitator providing quick support such as use of a mobile app that allows new start-ups to be registered within a day, subsidised patent registration, government funding (fund of funds), tax exemption, corporate tax reduction etc. An essential component of the entrepreneurial ecosystem in India is the presence of business incubators. Incubation centres help entrepreneurs turn innovative ideas into profitable products or services. Incubators reduce startup failure in the early years (Soetanto and Jack, 2016). Delivering vital information and services to start-ups is key to their survival (Hausberg and Korreck, 2020, Barbero et al., 2012). Incubation is typically classified as public, private, or university-based. Startup accelerators focus on early growth. Incubators offer mentoring, legal services, office space, and IT infrastructure. In addition, incubators help startups get government funding and prepare inventors to pitch investors. Incubation has three stages: pre-incubation, incubation, and accelerator. The incubation centre helps the entrepreneur prototype his idea and assess its technological feasibility during pre-incubation. After developing a plausible idea, it can enter the incubation period, which can take six to twelve months or longer. Incubation provides office space, infrastructure, and help starting a business. The incubator also helps startups get grants from other programmes. The accelerator stage reorganises a startup and prepares it to pitch investors. Technology-based enterprises relied on incubators' knowledge and networking, especially with funders, as accelerators emerged (Pauwels et al., 2016).

Incubators: Startups benefit from incubators' services and facilities. In 1987, incubation began. Incubation centres help entrepreneurs turn innovative ideas into profitable products or services. Incubators reduce startup failure in the early years (Soetanto and Jack, 2016). So, delivering vital information and services to start-ups is key to their survival (Hausberg and Korreck, 2020). (Barbero et al., 2012). Incubation is typically classified as public, private, or university-based. Startup accelerators focus on early growth. Incubators offer mentoring, legal services, office space, and IT infrastructure. In addition, incubators help startups get government funding and prepare inventors to pitch investors. Incubation has three stages: pre-incubation, incubation, and accelerator. The incubation centre helps the entrepreneur prototype his idea and assess its technological feasibility during pre-incubation. After developing a plausible idea, it can enter the incubation period, which can take six to twelve months or longer. Incubation provides office space, infrastructure, and help starting a business. The incubator also helps startups get grants from other programmes. The accelerator stage reorganises a startup and prepares it to pitch investors. Technology-based enterprises relied on incubators' knowledge and networking, especially with funders, as accelerators emerged (Pauwels et al., 2016).

Academic/ university-based incubators: Incubators improve university vocational training (Davaris et al., 2013). Given startups' potential economic impact, higher education may influence the entrepreneurial ecosystem. Entrepreneur India (2014) defines business incubators as "an organisation dedicated to accelerating the growth and success of entrepreneurial businesses through a variety of business support resources and services, which may include physical space, capital, coaching, shared services, and networking connections". Academic incubators offer more study and social possibilities than lecture rooms, study halls, and student unions. Incubators enable cooperation by connecting students to firms and investors. Academic incubators provide a network, facilities, and a venue to test ideas, encouraging entrepreneurship. Academic incubators may include shared office space, meeting rooms, lab access, catering, concierge services, and mentoring programs. Universities are researching how to prepare students for meaningful professions.

Today's university students want to establish businesses, create innovative technology, and create important social change (Petruzzelli & Murgia, 2019). To attract and retain entrepreneurial students, teachers, and researchers and foster academic-business ties, numerous institutions are constructing academic incubators. Hence, college incubators are common.

There are many challenges that startups on an academic campus face. Some of them are: lack of funding, cashflow and time management, IPR issues, market research and networking, HR challenges, IT issues, commercialization of the product etc. All these challenges can be overcome by having access to the academic/ university-based incubators (UBIs).

Startup and Entrepreneurship - The Government of India has launched a flagship programme called "Startup India" to foster an atmosphere conducive to innovation and entrepreneurship. This term is used to describe a business in its infancy. One or more entrepreneurs with an idea for a marketable good or service will often launch a startup. Startups often have significant expenses and minimal revenues, so they look for funding everywhere they can get it, including from venture capital firms. Most startups also try to raise money from people outside of the company, such as friends, family, and even venture capitalists. Do students have the resources to build and advance their potentially marketable ideas? The incubators on campus are equipped to handle such tasks. A system of encouragement for the Projects and Startup community will be established.

2. Challenges of Startups on Academic Campus

Funding, cash flow, time management, a tight budget, and the ease of doing business are all factors that promote innovation and entrepreneurship, but they also pose challenges to every new endeavour. Intellectual property protection, perfecting the products, juggling a busy school or college schedule with the enterprise, finding the right partner, finance constraints, and other substantial challenges must be overcome if students or the centre are to develop and commercialise their products. Concerns related to human resources include the challenges associated with hiring and retaining the best possible employees in a start-up setting.

3. Review Method

The literature review follows the guidelines from von Brocke et al. (2009). Studies were searched using the keyword Incubators, Academic Incubators, Startup, Higher Education Institutes, Investors, Mentors on different scientific databases: Google Scholar; JSTOR; ScienceDirect; ProQuest; InfoTrac; ACM Digital Library; IEEE Xplore; Taylor and Francis; Emerald and SAGE journals. Synonyms like "Industry-Institute-Interface" and the like, are considered during the search process. However, the search was done depending on the study objectives and the intended focus of the enquiry. Following an examination of the titles and abstracts, a total of 100 publications were identified and thoroughly examined. Only peer-reviewed studies published in English and with a clear focus on the empirical study of Starup and Incubation were chosen from among these. The publication's timeframe was set to 2015-2023. Infact, other earlier studies are also reviewed in order to understand the subject in totality. The 100 publications that were chosen were then subjected to a full-text review. Finally, 80 research investigating the startup and incubation were chosen as a baseline for further review and understanding the outcome, finding the gap and an opportunity for further study. Methodologically, 30 studies (27 percent) use hierarchical regression to analyse data, whereas 45 studies use other empirical methods such as multiple regression analysis, corelation, ANOVA, factor analysis and the like. The review focuses on the work done, the results and the outcome of studies and what lies the opportunity for the present study.

4. Review of Literature

Entrepreneurs can profit from well-equipped laboratories with university-supplied computer systems, as well as well-trained human resources and subject-matter specialists. Students, on the other hand, have the opportunity to apply their newly acquired knowledge to real-world business circumstances, thereby encouraging entrepreneurship. Building bridges between universities and business communities by commercialising technological developments and research findings is a key benefit for universities.

To completely understand the interaction between universities, BIs, and entrepreneurship, this study will outline the studies conducted in partnership between BIs and entrepreneurship, entrepreneurship and universities, and BIs and universities. Universities and business incubators (BIs) must collaborate since universities, as well as today's innovation-driven centres, are a source of information, research, and resources. Affiliation with or control of a business incubation programme within a university is a huge benefit for student entrepreneurs since these institutions can provide links to industry, society, and government in addition to the bundle of information and expertise that is generated.

Universities have been challenged during the last two decades to strengthen public accountability and to directly contribute to local, regional, and national economic and social development through a range of "third purpose" activities. These initiatives include the incubation of new firms, the monetisation of knowledge, the formation of knowledge transfer partnerships, and the provision of entrepreneurship education. Escobar Débora et al. (2022) The purpose of this research is to see if business incubators help entrepreneurship-related institutions boost company survival. The study's findings indicated that the different tools, initiatives, proposals, and services given by business incubators are critical to the survival of the entrepreneurial ecosystem, which in turn promotes the expansion of the nation's productive industry. Nestorenko, Tetyana, and colleagues (2022) conducted a theoretical examination of academic incubators as a mechanism for the formation of new firms. The purpose of this work is to inform readers about the supportive settings that universities and the educational system provide for students as they develop their perspectives as employees and employers. It is critical to equip students and teachers in order to enhance entrepreneurial knowledge and skills and create jobs. The number of academic incubators headquartered in universities and closely related with university operations for knowledge generation and dissemination has dramatically expanded.

Blank, Tali. (2021**)** according to this study, the prior experiences of the founding teams influenced the association between an incubator's mentorship programme and a startup's likelihood of success in its first year.

The findings show that firms with founding teams that lack administrative expertise or entrepreneurial experience have a reduced chance of survival when they do not employ the incubator's mentorship programme. This study investigates how a startup's chances of surviving its first year are related to the incubator's mentoring programme and various prior experiences (Shadi, Saraireh, 2021). The study's purpose was to investigate how business incubators promote innovation and economic growth in Jordanian institutions. It looked at a four-dimension questionnaire that covered administrative and office services, technical assistance and performance evaluation, training and advising, and financial support. According to the study, financial support was ranked last, with training and consulting rating higher than the others. The needed capabilities and criteria for establishing small projects are enhanced by creating favourable environment.

Hausberg & Korreck, (2020) did research to better understand the characteristics of incubators. Incubators offer two types of assistance to businesses: low-cost shared resources (financial, knowledge, skills, and infrastructure) and networking opportunities (investors, suppliers, employees and customers). Hence, in order to shed light on the contributions of BIs to the growth of TBEs, theoretical knowledge from the resource-based view (RBV) and social network theory must be borrowed (SNT). The low-cost shared resources provided by BIs, as well as the networking and collaboration options available both within (co-incubatees) and outside (investors), lead to a larger acceptance of BI's role in the development and, in some cases, expansion of business initiatives. Mason Pellegrini and Richard Johnson-Sheehan (2020) went on to say that the need for knowledge generation in society is a reality in all industrialised countries as a necessary component of competitiveness and sustainable development. That is why, in the European Union, the knowledge triangle or triple helix model, which is built on the relationships between academia, industry, and government, public administrations are expanding their attention on knowledge strategies by combining research, innovation, and teaching. As a result, the majority of business-minded institutions participate in BI programmes or have incubation arrangements to educate students and commercialise their own knowledge.

Noha Ahmed Hassan (2020) investigated university business incubators as a strategy for entrepreneurship acceleration. The goal of this research is to look into the link between universities and business incubators (BIs) and see how it affects students, scientists, and entrepreneurs. It encourages an environment in which everyone may help one another commercialise their innovative ideas, one-of-a-kind skills, and abilities. In other words, traditional universities' roles have evolved, and entrepreneurial institutions must now channel new information towards economic development via BIs. On a macro level, the study's findings imply that educational systems should encourage an environment in which young people can move from employee to employer mindsets and be equipped to develop their skills and knowledge in order to create jobs. UBI is a more current type of business intelligence that connects research findings to industry and development. All parties concerned will benefit from this relationship between these entities. In terms of the study's social implications, as previously reported by Dalmarco et al. (2018) and Etzkowitz et al. (2019), countless incubators globally are financed by universities. Others are building ties with colleges and schools of higher learning in order to profit from their academic nature. University incubators have lately emerged as a type of incubator that is more entrepreneurially helpful than other types of incubators. According to one study, SMEs and multinational firms usually seek R&D solutions from universities rather than carrying out the complete process themselves, as Feola, et al. (2021) discovered.

Another aspect of UBIs is competitiveness, Mavi et al. (2019) discovered that shifting to a knowledge-based economy required UBIs to expand production of new created firms and strengthen their competitive advantages through significant modifications to efficient financial regulations. In the study of Van Weele et al. (2017) researchers revealed mixed results on the relative success of specialised (homogeneous) and generic (heterogeneous) incubators in terms of their contribution to the growth of incubatee firms. According to Mavi et al. (2019), the most important factor influencing UBIs administration is "human capital," followed by technological, financial, and organisational aspects. All institutions, particularly incubators, rely on well-trained management and personnel. Companies compete to hire highly qualified employees in order to achieve growth and competitive advantages.

Now is the era of the so-called "third mission" (Sánchez-Barrioluengo & Benneworth, 2019), in which university-industry collaboration is channelling university inventions and innovations into commercial applications in order to build an entrepreneurial economy. This strategy has been shown to be beneficial in both developed and underdeveloped countries. Similar findings can be found in the studies of Siegel and Wright (2015), and Veugelers (2016). Another study and observation of Franco et al. (2018) described the clustering strategy and defined the incubator's role as responding to the global challenges of the new creative economy by aggregating the knowledge and key competencies developed at the University of Porto in different areas of the creative and cultural industries' (p. 251), emphasising the incubator's importance even further. According to Fernández et al. (2018), the entrepreneurial university concept emerged as a result of a shift away from a more traditional academic context towards knowledge generation that integrates economic development with research and teaching; other studies examined teachers' perceptions of their own entrepreneurship education skills. The research addresses the importance and relevance of incubation centres, as well as the role they may play in ecosystem growth.

Fern et al. made an observation in another study (2018). Collaboration with universities and researchers within can maximise the efficiency of BIs in corporate development. Via their new missions, universities might strengthen their position even further by building an efficient and effective incubation system for supporting, producing, and enhancing the entrepreneurial society. University business incubators (UBIs) foster a more conducive environment for income generation and the establishment of financially, legally, and technically advantageous linkages among universities, industry sponsors, government, and society. Universities must respond to changing and expanding demands while keeping in mind their objectives. Teaching and research are no longer enough. According to Weele et al. (2017), BIs are housed on university and college campuses. These BIs are an effective way to find possible colleagues and build networks that add value. Van Weele et al. (2017) conducted research to better understand the stages of startup development.

Start-ups face several limits on their resources during their germination phase, particularly those that are distinctive, limited, and difficult to replace, resulting in 'liabilities of newness' and 'liabilities of smallness'. The 'liability of smallness' limits them access to resources, while the 'liability of newness' reduces their chances of establishing sufficient network capital to attract resources. Incubators and their support systems give not only current resources, but also opportunities to network for new resources—financial capital, social capital, and physical capital that can be supplemented by the necessary knowledge capital. Incubators act as intermediaries between various network actors, facilitating mutually beneficial relationships. According to one study, universities are also well-positioned to foster and develop student entrepreneurial spirit through a variety of support activities such as organising conferences, providing seed funding for student ideas or projects, and assisting venture ideas as they progress from the embryonic stage to the next stage of development, which may include assistance from an accelerator or an incubator (Wright et al., 2017).

In order to contribute to economic and social growth, the link between business incubators and universities has broadened its mission and relationships (Schmitz et al., 2017). Activities connected to innovation and entrepreneurship are on the academic agenda. These initiatives are congruent with the entrepreneurial university philosophy. The impact of university-affiliated incubators on university-based innovation is investigated by Kolympiris and Klein (2017). According to their research, one of the effects of establishing a university-affiliated incubator is a decrease in the quality of ideas. Schmitz et al. (2017) observe in another study that colleges have taken on new missions and links in order to contribute to economic growth and social development. Activities connected to innovation and entrepreneurship are on the academic agenda.

According to the findings of the study conducted by Albort-Morant and Oghazi (2016), Business Incubators-BIs on university campuses provide firms and entrepreneurs with a variety of support systems, including financial, legal, advisory, training, marketing, and networking services, and help incubate firms increase their profitability. Existing firms have also licensed university-developed technologies (Kirchberger & Pohl, 2016).

According to Albort-Morant & Oghazi, (2016), the graduate competence gap can occur for a variety of reasons, and it necessitates the preparation of students on campus with industry-required competencies; there is a gap between industry-required competencies and the competencies produced by graduates; and the three major competencies required by industry are hard skill, soft skill, and entrepreneur skill, or one of which is fulfilled on occasion. This can be addressed by imparting entrepreneurship competence, allowing for the formation of an entrepreneurial provision. To produce graduates who are completely capable of developing an entrepreneurial spirit, the curriculum mandated to provide entrepreneurship training for students must be efficiently implemented, so that it can later be used as a provision for becoming an entrepreneur. As a result, a graduate of an educational institution is considered to have overall entrepreneurial competence if he or she has studied hard skills, soft skills, and entrepreneurship skills in such a way that those talents will be relevant throughout one's life (life skill). According to a study conducted in the field of University Incubator and Budget, the two basic strategies regulating incubators are the strategy for technological development and the strategy for market expansion (market discovery and exploitation) (Soetanto & Jack, 2016).

Hernandez and Carra (2016) discovered that business incubator programmes at several public and private universities were developed not only for small businesses, industries, and cooperatives, but also to engage students and alumni in entrepreneurship development in collaboration with the Ministry of Cooperatives and Small Enterprises. A typical business incubator's primary principle is to aid in the launch of a firm through counselling, the latter from the room, and administrative infrastructure and other services. Lasrado et al. (2016) investigate the performance of university incubators. Examine if businesses that leave university-based incubators outperform organisations that do not leave incubators. Sven Dahms and Suthikorn Kingkaew conducted research on University Business Incubators: An Institutional Demand Side Perspective on Value Added Elements (2016). The purpose of this study is to look at the different expectations for value-added features in university business incubators. It establishes an institutional perspective to steer the process.

A framework based on contemporary entrepreneurial theory and research on the creation of business incubators has been developed. An exploratory empirical study was conducted with persons from the United Arab Emirates and Thailand to validate the notion. The survey questionnaires were prepared and tested before being utilised in the empirical study. According to the research, demand for incubator characteristics, particularly those related to infrastructure and networking services, varies greatly. There were no differences in business support services observed, which was predicted. Furthermore, they discovered that a broader approach and aims appear to be preferred over a narrower industry focus. According to the study's findings, the framework advises that university business incubators evaluate institutional discrepancies between nations in order to increase the incubator concept's adoption, particularly in developing countries.

University-based incubators make up for their financial constraints by aiding incubates in establishing strategies that combine technology deployment and market exploitation (rather than market discovery), leveraging the university's research and experience. This technique appears to increase the performance of both the spinoffs (incubatees) and the incubator in terms of innovation and profitability (Mrkajic, 2017). Several studies have found that incubators are critical to these economies because they provide the help that the government, market, and community organisations lack (Manimala & Wasdani, 2015).

The sources of funding for the incubator's operations. In light of the challenges, Schaeffer and Matt (2016) contend that collaboration between incubates and academic professionals can result in improved legitimacy and new economic opportunities. The current level of seed capital is insufficient for the size and purpose of a certain business; there are several programmes that provide financial help to businesses, but they are mostly unavailable to initiatives that do not fit certain criteria (Muscio, 2016). Second, despite the availability of the incubator's infrastructure for entrepreneurial purposes, it is now inactive or being used for administrative purposes due to a lack of interest in the incubation programme. While concentrating on human capital and staffing requirements for incubation centres. Finally, there is a lack of effective collaboration between universities, government, and industry; the lack of legislation and inadequate communication aimed at fostering entrepreneurship impedes its continued development; as a result, the entrepreneurial environment is unprepared to flow properly, as observed in Guerrero et al. (2016). While incubators offer a variety of tangible and intangible resources, many companies enter with the primary goal of collecting physical and financial capital. As a result, business training and mentoring services are typically under-utilised, limiting the incubator's potential effectiveness (van Weele et al. 2017).

Maritz et al. (2015) investigated universities' expanding role in entrepreneurship support. Their survey covers 584 entrepreneurship-related courses offered by Australian universities. This included an undergraduate hegemony in which entrepreneurship was represented by 24 minors, majors, and specialisations, with a total of 135 entrepreneurial ecosystems found. According to Roura (2015), BI-university relationships help entrepreneurs, students, institutions, and incubators. In their study of academics and entrepreneurs from rich and developing nations, Grzegorczyk and Trzmielak (2015) discovered that commitment and awareness of one another's needs were two of the most essential traits for facilitating technological commercialisation and knowledge transfer. This highlights the vital importance of expanded industry-academia partnership. As a result, as found in Roura's study, the majority of business-minded institutions participate in BI programmes or have incubation arrangements as a means of training students and commercialising their own knowledge (2015). According to Siegel and Wright (2015) entrepreneurial activity can occur indirectly as a result of university education and research, resulting in student start-ups on campus and business spin-offs. According to one study, the university could be both a source of innovative technology and the intended beneficiary of their commercialisation.

According to Audretsch (2014), universities are not only concerned with educating students, advancing research, or even transferring knowledge through contracts, licences, and spinoffs, but also with developing the tools needed to foster innovation, entrepreneurial thinking, developing organisations and entrepreneurial leaders, and raising people's living standards. By a genuine mindset and a strong commitment to leadership, university incubators develop an entrepreneurial culture.

Hong and Yang (2014) investigated the factors that influence students' intentions to start a business at universities through incubator centres. They found a substantial link between the desire to start a business and individual abilities connected with safety, autonomy, and technologically oriented activities on the one hand, and entrepreneurial education on the other. On the one hand, they validated the considerable association between entrepreneurial intention and individual skills connected with safety, autonomy, and technology-oriented employment, and on the other, entrepreneurial education. According to Audretsch (2014), universities should take the next step by building mechanisms for nurturing entrepreneurial culture and launching new ventures on campus. Today's universities' mission has evolved from teaching to a pre-determined strategy to economic growth through research, innovation, and entrepreneurship. Through the promotion of creativity, innovation, knowledge access, information exchange, and appropriate infrastructure, scientific research has steered emerging economies, which face numerous economic challenges such as unemployment and low economic growth rates, towards becoming knowledge-based economies. As a result, the vast majority of them employ BIs to stimulate economic growth. Incubators act as a driving force in the commercialisation of university-based research. The study by Theodorakopoulos et al. (2014) focuses on the role of decision makers and policymakers in defining incubates and infrastructure and funding offerings. They contend that discussions with entrepreneurs of incubated firms to determine the true value of incubators in the entrepreneurial journeys of enterprises are crucial for idea generation and positive business decisions. In another study, Audretsch (2014) stated that, while monitoring the changing purpose of universities, modern universities have turned away from basic research as a public service and towards organisation-based profit, such as industries and enterprises. Universities are now primarily concerned with supporting these organisations in resolving their problems by providing accurate solutions.

The National Business Incubators Association (NBIA, 2014) defines BI as a dynamic business enterprise development and business support process that accelerates the successful development of start-up enterprises by providing entrepreneurs with targeted resources. These resources are often created by BI management and distributed via the BI's network of contacts. Another big issue in running an incubator, according to the UBI Index (2014), is attracting college leaders. As highlighted in the LEED Report, developing cross-disciplinary trends, making entrepreneurial orientation accessible to all students, integrating students from financial and market studies with students from other faculties and diverse backgrounds, and generating start-up groups remain critical challenges for reinforcing entrepreneurial universities (2018). This problem can be overcome by establishing favourable relationships with local enterprises that interact with businesses; these organisations are outstanding recruiters, and many businesses gain their CEOs through them. UBIs can be used to address a variety of challenges.

Al-Mubaraki and Busler (2013) conducted a qualitative study that included ten multi-case studies in diverse countries. Based on their growth, client base, and number of graduating businesses, the study findings revealed that countries with incubators can make a substantial contribution to economic development. An incubator, according to the author, is a physical location that provides a specialised set of services to individuals, entrepreneurs, and small enterprises. These are organisations that help to support start-up enterprise innovation rates and the growth of entrepreneurial activities. Several studies have focused on the challenges that university business incubators (UBI) face in stimulating entrepreneurial behaviours. Although Gibb (2013) discovered that there are no clear measures for gauging university success in respect to incubators.

University incubators, according to Chandra et al. (2012), have a long history of providing physical space, human resources, mentoring and finance sources, as well as supporting innovation and commercialization. According to Shahzad et al. (2012), incubators in university settings can help young businesses handle their problems. They go on to say that incubators are important for the growth of the entrepreneurial spirit since they help budding entrepreneurs in a variety of ways. According to Kuswara (2012), the entrepreneurship-based education model used in colleges consists primarily of five methods: curriculum, business incubators, centres for entrepreneurship, students' scientific Olympiad competitions,

and developing entrepreneurial skills and characteristics through integration into courses and extracurricular activities, all of which address the need for educating students towards entrepreneurship. One of the major characteristics of first-generation incubators in an academic institute, according to Bruneel et al. (2012), is the supply of physical services, i.e., infrastructure. Subsidised office space and other physical resources, such as receptionist services, parking, and meeting rooms, relieve incubator tenants of the costs involved with searching for and managing new employees. However, Vanderstraeten and Matthyssens (2012) observed that the breadth of incubators is controlled by whether generic or specialised services are preferred.

5. Research Gap

Several study subjects have been explored in relation to business incubators, including the following: Who are the incubator's tenants? What are the roles of incubators in entrepreneurship and innovation? What is the role of universities as incubator providers? Incubators have what kind of organisational structure? What factors influence the performance of incubators and, thus, start-ups? What theoretical foundations are there for incubator research? The subject of incubator research has become fragmented and somewhat disorganised as a result of the rising quantity of literature. While business incubators are playing a larger role in ecosystem development, debate over if, how, and under what conditions they work continues. While a single study is sufficient to investigate this subject and necessity. Incubators are critical for the development of both tangible and intangible resources. Young entrepreneurs and student entrepreneurs frequently overlook intangible resources such as business knowledge and social capital, resulting in a missed opportunity. However this can be handled further by creating a unique dashboard for intangible resources and their accompanying benefits.

According to previous research, the under-utilisation issue can be attributable to a mismatch between the resources required by entrepreneurs and the resources provided by the incubator. Current academic literature indicates resource mismatch as a contributing cause to the problem, although all agree that many new entrepreneurs do not use all of the resources given through a business incubator. As a result, it is the incubator's responsibility to use proactive ways to engage entrepreneurs in and connect them with the offered services. A study must address this issue and create synergy for better outcomes. Many studies have been conducted to investigate how business incubators provide critical tools to entrepreneurs and assist young businesses in succeeding. Incubators should carefully consider the extent to which their communities require bridging, buffering, and curating strategies. A study using this method is necessary to investigate the policy formulation process.

Students Academic entrepreneurs may not always know what they need and may be hesitant to use all of the incubator's capabilities. Incubators should emphasise business training as a basic value proposition and employ strong strategies to assist entrepreneurs in fully using networking and mentorship opportunities. A programme must be compatible with study and research findings. This can be addressed by doing a research study. There have been few studies on the role of mentors and how they foster new entrepreneurs. For people who want to build a firm on an academic campus, Incubation involves Mentor guidance. A clear function and duty structure, replete with job descriptions, will boost the startup community's reputation.

KPI - Key Performance Indicators (KPIs) – provide direction for every firm. It defines the route of action and the desired objectives. There was no comparable research found in this location. A dashboard with all KPIs and deliverables specified will enable incubation centres assist entrepreneurs in making a bigger impact. The incubators are profitable because of finance and the mechanism for financing the startup. While venture capitalists and incubators are linked, their performance in terms of return on investment and value generation has been uneven. This issue has been disregarded in studies, and the study's findings are empty of such practical solutions.

One may argue that the primary goal of incubation on college campuses is to correct market weaknesses. Because incubators fill a void left by failing markets, they should be run as non-profit organisations. Think on the subject of sustainability. There may be a trade-off between sustainability and impact.

In other words, we should assess incubator effectiveness first on the basis of their contribution to the growth of small businesses or the number of enterprises launched ("impact"), and subsequently on the basis of their financial self-sufficiency. Microeconomic efficiency (return on investment from academic university promoters) must be balanced with macroeconomic effects (return on investment from promoters and VC). This is an area that needs to be addressed.

6. Objective of the Paper

The purpose and goal of this article is to examine business incubators as institutions that assist entrepreneurs in building their enterprises, particularly in the early stages. There are organisations dedicated to accelerating the growth and success of start-ups and early-stage businesses, and research has concentrated on this topic. Following review, the study develops a framework / model for establishing Incubation centres in academic settings, because a startup accelerator, also known as a seed accelerator, is a business programme that promotes early-stage, growth-driven enterprises through education, coaching, and investment. Startups often participate in accelerators for a set length of time as part of a cohort of companies, and such centres might be developed.

7. Scope of the Paper

The purpose of this paper is to conduct a literature review on the work that has been done and reported in the field of academic campus incubator centres. The ways in which these centres contribute to the growth of a startup culture on campus as well as the potential generation of employment and economic activity. The purpose of this study is to investigate several aspects of startup culture that are common in academic and university contexts and are fostered by incubators, as well as to investigate how previous studies have viewed this potential area in general. In addition, the study (paper) develops a framework (model) for academic institutes to establish incubation centres and start-up culture by basing it on the gaps and unexplored areas that have been identified.

8. Inferences from the Review of Work, Significance of the Enquiry, and Conclusion

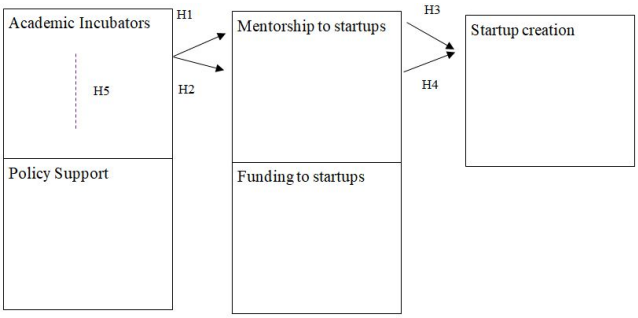
There are studies which have attempted to understand the Incubation on academic campus. But, an impact study has not been reported, and how thesis Incubation centres have impacted the students is unclear. A startup study and its relevance on academic campus is not observed. The potential of having such centres for students advantage is unexplored. Since there is potential for Management to promote such Incubation centre for students entrepreneurial opportunity, no such stay has attempted to showcase the role of Management in promotion of startup culture and ecosystem. A strong linkage between the Industry-Institute which brings knowledge sharing is another potential area of economic benefit. However, studies are not reported in this area.

The development of novel solutions to India's most pressing issues and the creation of extensive employment opportunities for the country's expanding labour force are two of the primary reasons why new businesses are essential to the country's long-term prosperity. The government is aware of how important new businesses are to the growth of the nation's economy, and as a result, it has launched a number of innovative programmes in order to encourage the growth of an entrepreneurial environment. The originality and scope of the study are the primary contributors to the research's significance. Both the general public's comprehension of incubators and the ability of relevant authorities to improve their functionality would benefit from the study. Nonetheless, all of the relevant parties have been consulted for this study, and it takes into account the requirements of students while considering how future rules might be developed at universities and other institutions of higher education concerning incubators for new businesses. During incubation, business owners are able to keep their funds safe while also receiving helpful guidance from outside sources. By providing an environment for business incubation on campus, the centre helps student entrepreneurs bring out their ideas' full potential. By creating a culture of startups at their school, students can demonstrate their abilities and potential in the business world.

Startups benefit from the guidance and organisation offered by academic business incubators. A campus incubator can be beneficial to students because it aims to create sustainable businesses. However, thriving incubators benefit the local economy and provide invaluable learning opportunities for students.

Model Development / Theoretical Framework

Figure 1: Proposed Model for Academic Incubators and Startup Creation



Concept Development and Hypotheses: The literature review follows Von Brocke et al (2009). Google Scholar, JSTOR, ScienceDirect, ProQuest, InfoTrac, ACM Digital Library, IEEE Xplore, Taylor & Francis, Emerald, and SAGE journals were searched for Incubators, Academic Incubators, Startup, Higher Education Institutions, Investors, Mentors. Searches include "Industry-Institute-Interface" and other synonyms. The study objectives and intended focus determined the search. The titles and abstracts of 100 articles were analysed. Only peer-reviewed English-language studies that focused on empirical Starup and Incubation research were included. The publication spanned 2015–2023. To comprehend the topic, other studies are also evaluated. Eventually, 80 startup and incubation studies were selected as a baseline for further evaluation and understanding, revealing a gap and a potential for further research. 30 papers (27%) utilise hierarchical regression, whereas 45 use other empirical approaches including multiple regression, correlation, ANOVA, factor analysis, etc. The review discusses past research, findings, and opportunities for the present study.

Well-equipped labs with university-supplied computers, well-trained human resources, and subject-matter experts benefit entrepreneurs. . Universities profit from commercialising research and technology to connect with corporate communities.

This study will review BI-entrepreneurship, entrepreneurship-university, and BI-university studies to fully comprehend the relationship between universities, BIs, and entrepreneurship. Universities and today's innovation-driven centres provide information, research, and resources, therefore they must work together. Student entrepreneurs gain from university business incubation programmes because they give linkages to industry, society, and government as well as information and skills.

Universities fund several incubators worldwide, according to Dalmarco et al. (2018) and Etzkowitz et al. (2019). Others are partnering with universities to profit from their intellectual nature. University incubators have become more entrepreneurially helpful than other incubators. The "third mission" (Sánchez-Barrioluengo & Benneworth, 2019) is university-industry partnership to commercialise academic inventions and innovations to establish an entrepreneurial economy. This approach benefits both wealthy and developing nations. ц (2016) and Veugelers (2016). Therefore, the hypothesis:

H1: Academic incubators have a significant relationship with mentoring the startups.

According to Audretsch (2014), universities not only educate students, advance research, and transfer knowledge through contracts, licences, and spinoffs, but also develop the tools needed to foster innovation, entrepreneurial thinking, developing organisations and entrepreneurial leaders, and raising people's living standards. University incubators foster entrepreneurship via sincerity and leadership. Hong and Yang (2014) examined how incubator centres affect university students' entrepreneurial inclinations. Therefore, the hypothesis:

H2: Academic incubators have a significant relationship with funding the startups.

Audretsch (2014) suggests universities foster entrepreneurial culture and create new ventures on campus. Universities now focus on economic growth through research, innovation, and entrepreneurship rather than instruction. Decision makers and policymakers define incubators, infrastructure, and finance, according to Theodorakopoulos et al. (2014). Therefore, the hypothesis:

H3: Funding provided by academic incubators has a significant relationship with startup creation.

University incubators provide space, people, training, and funding for invention and commercialization, according to Chandra et al. (2012). Shahzad et al. (2012) advise university incubators for startups. They note that incubators encourage ambitious entrepreneurs. Therefore, the hypothesis:

H4: Mentorship provided by academic incubators has a significant impact on startup creation.

Over the past two decades, universities have been challenged to improve public accountability and directly contribute to local, regional, and national economic and social growth through "third purpose" activities. They include entrepreneurship education, knowledge monetisation, knowledge transfer partnerships, and new firm incubation. Nestorenko, Tetyana, et al. (2022) found that academic incubators help students improve their perspectives as employees and employers. Pellegrini.M., & Johnson-Sheehan.R. (2020) stated that all industrialised nations need knowledge generation for competitiveness and sustainable development. In the EU, education, industry, and government form the knowledge triangle or triple helix. Combining research, innovation, and education, public administrations are prioritising knowledge strategy. Noha Ahmed Hassan (2020) examined university business incubators for entrepreneurship acceleration. Thus, present work hypothesises:

H5: Policy support has a moderating effect on academic incubators.

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