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Navigating Academic Entrepreneurship- A Case Study

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Abstract: This paper aims to explore the relationship between academic entrepreneurship, new venture creation, and innovation, using a case study of a leading engineering college in Karnataka, India.

The study employs a case study methodology to examine how the engineering college in a Tier 2 city in Karnataka has fostered academic entrepreneurship despite facing unique challenges.

The case study reveals that SIT the college undertaken for study has established a supportive environment for academic entrepreneurship by going beyond traditional support for research. It provides infrastructure, mentorship, and financial aid to faculty members and others, without claiming ownership in the resulting ventures. Within three years of establishing its own incubation center, the college successfully converted two research ideas into ventures, with additional ventures in progress.

The findings of this study have both theoretical and practical implications. Theoretically, it contributes to understanding the process of enhancing academic entrepreneurship. Practically, it provides insights into creating an ecosystem that can be replicated by other colleges seeking to foster academic entrepreneurship.

This paper contributes to the literature by offering a detailed exploration of the relationship between academic entrepreneurship, new venture creation, and innovation within the context of SIT. It highlights the importance of providing comprehensive support to faculty members and others involved in academic entrepreneurship and offers a potential model for other colleges to emulate.

Keywords: Entrepreneurship, Academic Entrepreneurship, Ecosystem in HEIs

Introduction

Today academic entrepreneurship has taken centre stage. Every organisation is trying to capitalize on the academic prowess of the faculty and students to innovate and create ventures that could be profitable. They are directly utilizing the knowledge developed through academic research to establish innovative ventures. Further, increasing attention has been provided to the commercialization of innovations in academics and creating academic spinoff organizations (Ensley and Hmieleski 2005).

Entrepreneurship is an art of creation, visualization, and realization of new ideas by insightful individuals. It is the ability and skills of an individual to translate business ideas into reality by setting up a business venture to serve the

market demands of society and the nation. Entrepreneurship is defined as starting a business, basically a start-up company offering creative product, process or service and it is an activity full of creativity.

The advantage of creating ventures as an outcome of academic research is not restricted to only the college/ university. It is a win-win situation for all involved parties as, the academician/student is given an opportunity to convert his research into an idea, without worrying about the initial funding and infrastructural need. It is also helpful for the community as it creates employment opportunities for them and thereby support in nation building.

Research Problem

Academic entrepreneurship is a very unusual form of entrepreneurship as it has the ability to generate numerous amounts of ideas and opportunities but at the same time academicians often lack the major entrepreneurial competencies like risk-taking, managing of enterprise and understanding the nuances of business as they lack the exposure to these areas. The process of launching an actual venture is a totally different ball game as compared to mere research and hence launching of an innovative idea in a complete academic setting can be a difficult nut to crack. Thus, academic entrepreneurship requires support in getting things moving initially. They require guidance in understanding the nuances of doing business, the financing and its implication, the impact of strategic decisions on the profitability of business to name a few. This is where a business incubator plays a pivotal role. The incubator can help foster academic entrepreneurship to a greater extent by acting as a mediator to bridge the gap between the development of idea and commercialization of idea. Entrepreneurial activity is vital to a strong global economy as entrepreneurial spirit is most significant development in recent business as it leads to development of innovative products and services, and it also creates job opportunities.

In this paper the case of Siddaganga Institute of Technology (SIT), Tumkur is presented. It is a leading engineering college situated in a Tier 2 city in the state of Karnataka, India. This case is chosen as the college was able to foster academic entrepreneurship by creating a conducive environment and setting up a business incubator which fostered academic entrepreneurship in the campus.

Review of Literature

Academic entrepreneurship is defined as the setting up of new spinof organizations by the teaching faculty, post doctoral students, current students, based on and developed as part of the university technology. Academic entrepreneurship in India is where universities and tertiary educational institutions serve as centers where innovations originate leading to the formation of new companies or transfer of technology and scientific research into the established industrial structures Jasmine, & Rapaka (2018).It is an invaluable machine for developing the economy as well as the social landscape (Rothaermel et al. 2007; Wright et al; Shane 2004)

While there are substantial amount of literature that explores individual and firmlevel features alligned with the success that university spinofs meet, recently a lot of work has emphasized on the need of innovation in entrepreneurship (Autio et al. 2014)

Several studies have investigated the factors influencing academic entrepreneurship, identifying institutional support, entrepreneurial culture, access to resources, and individual characteristics as critical determinants (e.g., Guerrero & Urbano, 2012; Etzkowitz et al., 2000). Additionally, research has highlighted the role of university policies, intellectual property rights regimes, and technology transfer offices in shaping the academic entrepreneurial ecosystem (e.g., Mustar et al., 2006; Perkmann & Walsh, 2007).

Moreover, scholars have examined the outcomes and impacts of academic entrepreneurship on various stakeholders. For instance, academic entrepreneurship has been linked to enhanced research productivity, knowledge diffusion, and technology transfer (e.g., Thursby et al., 2009; Zellweger et al., 2012). Furthermore, studies have demonstrated the contributions of academic entrepreneurship to regional economic development, job creation, and industry innovation (e.g., Audretsch et al., 2012; Link & Scott, 2003).

However, challenges and barriers to academic entrepreneurship persist. These include academic culture norms, risk aversion, bureaucratic hurdles, and conflicts between academic and commercial interests (e.g., Shane, 2004; Clarysse et al., 2005). Additionally, the role of gender, ethnicity, and disciplinary differences in shaping entrepreneurial behaviors and outcomes has received attention in recent literature (e.g., Balachandra et al., 2019; Chatterji et al., 2016).

The ecosystem perspectives has be long employed by scholars to explore the industrial requirements (Moore 1993) The literature on ecosystem as an approach to enhance entrepreneurial activity are now being applied to academic entrepreneurship to, (Clarysse et al. 2014; Swamidass 2013). Further a lot of studies in the recent past has given alot

of focus on the age factor, with majority of them showcasing the increase in the level of academic entrepreneurship with the increases in age (Ambos et al. 2008; Aldridge and Audretsch 2011;; Bergmann et al. 2016; Colyvas and Haeussler 2011; Grimm and Jaenicke 2012; Oehler et al. 2015), All of these studies have found relationship between the academic research and the seniority of the faculty in the university system (Clarysse et al. 2011) (Rasmussen et al. 2014, To put it more conviniently, with age and experience, in academia in universities, researchers are more likely to have more fexibility, knowledge and contacts, so that they are encouraged to participate in more activities involving entrepreneurship (Colyvas and Haeussler 2011; Huyghe et al. 2016). However, there are a few notable exceptions which include those of Karlsson and Wigren (2012) and Bercovitz and Feldman (2008), who argued that university faculty who are old in the system are far less likely to start their own company and the faculty who are not introduced to entrepreneurial activities in the beginning of their career are less likely to take up entrepreneurship later in their careers,respectively. Beckman GD and Cherwitz RA (2009), speak on the notion of intellectual entrepreneurship and say that it should be simply understood as using university faculties as catalysts of change. This philosophy considers lecturers as those who introduce new things. In other words, through it scientists are viewed as inventors. These people deal with various fields hence they should combine their efforts together in order to make sure that their researches meet real life needs and address various issues facing mankind. Academic engagement is intellectual entrepreneurship." Gulbrandsen and S. Slipersæter (2007) highlights in the reviewed literature numerous confrontations that confront scholars and stakeholders who are transforming conventional colleges into entrepreneurial universities due to universities doing things other than what they are used to; as far as universities are concerned.

While the academic entrepreneurship sector is underexplored with many professionals preferring employment over entrepreneurship, India stands as the third-largest tech startup hub in the world . What is essential are innovations driven by the market notably cutting-edge areas such as AI and ML. Nevertheless, Academic entrepreneurship remains a niche area characterized by significant gender disparities (ET report)

The literature on academic entrepreneurship underscores its importance as a driver of innovation, economic growth, and societal development. While significant progress has been made in understanding its determinants, outcomes, and challenges, further research is needed to explore emerging trends, cross-cultural differences, and the evolving role of universities in the entrepreneurial ecosystem. Keeping the existing research in mind and the understandings derived from it the following objectives are established for the study.

Research Objectives

The paper predominantly tries to find answers to the following research questions

1. How was SIT able to stimulate academic entrepreneurship?
2. What role did the Technological Business Incubator (TBI) set up in the campus play to tackle the challenges that academic entrepreneurship possesses?
3. How is SIT creating an ecosystem to foster academic entrepreneurship?

Academic Entrepreneurship

The quality of academic research is highly dependent on the environment that the college/university create for academicians to engage in research. This involves providing necessary infrastructure like well-equipped labs, latest software, up to date workstations etc. The mere existence of the physical infrastructure doesn't lead to research. Faculty with exposure to the world of research make academic research possible.

The journey from academic research to academic entrepreneurship is not easy and much research stays on paper and are never translated into a venture. The major chuck of academic research is not suitable for commercialization and hence they cannot contribute to academic entrepreneurship. That research which are innovative and show the potential of venture creation must further be tested for the market potential of the idea, the ability of the faculty/student to take the idea to the market, combine resources that are essential to convert the idea into a venture, the vision of the researcher is some of the other factors that are to be considered for converting the academic research into a venture. As discussed, there would be very few ideas that would tick all the check boxes and is in turn converted into an operational new venture.

Need for Academic Entrepreneurship

The need for academic entrepreneurship in Indian Higher Educational Institutions (HEIs) stems from the imperative to foster innovation, drive economic growth, and address societal challenges. Academic entrepreneurship enables HEIs to translate research findings into tangible solutions and products that benefit society. In India, where innovation

and entrepreneurship are increasingly recognized as drivers of economic development, HEIs play a crucial role in nurturing a culture of innovation and entrepreneurship among students and faculty. By encouraging academic entrepreneurship, HEIs can bridge the gap between academia and industry, leading to the commercialization of research, creation of start-ups, and ultimately, job creation. Moreover, academic entrepreneurship fosters collaboration between academia, industry, and government, facilitating knowledge exchange and technology transfer. This collaborative ecosystem not only enhances the competitiveness of HEIs but also contributes to the overall socio-economic development of the nation. Promoting academic entrepreneurship in Indian HEIs cultivates a culture of innovation by encouraging students and faculty to translate research into practical solutions. This fosters the development of cutting-edge technologies and novel approaches to address pressing societal challenges. By facilitating the commercialization of research findings, academic entrepreneurship contributes to economic growth by creating new ventures, generating employment opportunities, and attracting investment, thereby fueling innovation-led economic development. Additionally, by fostering collaboration between academia, industry, and government, academic entrepreneurship ensures that HEIs remain responsive to the evolving needs of society, driving forward progress and societal well-being.

Factors that Impact Academic Entrepreneurship

The studies in the past have always the studies in the past have always identified the ability and experience of an individual plays an important role in the establishment of new venture. The entrepreneurial capacity of the individual is of utmost importance and thus it is vital for faculty to possess the entrepreneurial capacity along with the academic prowess to create and sustain a venture leading to academic entrepreneurship. Further, the experience of the entrepreneur in setting up ventures can also go a long way in instilling confidence among the stakeholders of the newly established venture. This also would aid creating an impression that the entrepreneur has previously managed ventures and thus have the basic understanding of managing resources optimally. Also, it creates a sense of legitimacy in the vision of the entrepreneur and helps in overcoming the burden of being new and inexperienced.

The social environment in which the faculty interact also has an impact on their ability and interest to pursue academic entrepreneurship. Stuart and Ding (2006) established that the faculty are thus more likely to embrace entrepreneurship if they are in contact with other faculty who have taken up entrepreneurship. The positive impact of having colleagues who are entrepreneurs and have started new ventures as an extension of their academic research is phenomenal. It acts as a motivator for the rest of the faculty and creates a desire in them to take up entrepreneurship. Further, these social interactions also pave way for discussion of ideas, creation of new opportunity, collaborations, flow of ideas, expertise etc.

The ability to interact and network with the industry is also an important factor. Most often the faculty through the academic research create ideas that they perceive to be revolutionary. Even though they may be ground-breaking in terms of the technology used or the knowledge base they add to but may have little or no market when it is spin off as a venture. Thus, a close network with the industry would ensure the faculty that whether the idea resulted from the academic research has a commercial value to it or not.

Finally, the overall network of the faculty in terms of having connections to the venture capitalist, serial entrepreneurs, angel investors etc, would also add mileage to academic research. This helps the academic community to gather funds for their ideas along with helping them understand the essentials of business. Sometimes these connects also help in understanding the target market and the strategies that can be adopted to successfully compete in these markets thus reducing the percentage of failures.

This paper aims to understand the role that SIT played and continues to play to ensure academic entrepreneurship is fostered in the institute.

Methodology

The study focuses on analysing and studying a single case study of Siddaganga Institute of Technology, Tumkur. The case is interesting as it has been able to create 2 ventures from the academic research resulting in academic entrepreneurship with few others in the pipeline. this is an interesting feat for two major reasons.

a) The college started to focus on entrepreneurship from 2019 and in the span of three (3) years is able to have two (2) functional ventures.
b) Within months from the launch of its Technical Business Incubator (TBI) the vehicle for achieving academic entrepreneurship, the world was hit by a pandemic and the effects of it are still persistent today.

Thus, studying this case study could help us unleash the power of academic entrepreneurship and understand the means and processes through which SIT was able to achieve the same.

The primary data for the study was collected through an interview with a key manager at the S-TBI. To get further information, we also interviewed the faculty and founder of one (1) of the ventures in S-TBI. The interviews lasted for about half an hour each. The important attributes from each of this interview are identified and are presented for discussion. The core areas that were identified include: The phases of academic research to venture creation and The institutional support provided by SIT in venture creation. The interview is further supported by spending time in the institute to understand the day to day workings of the faculty in the institute. This gave an idea of the process of research the time available to the faculty, the environment etc at SIT.

In order to counteract the inner biases inherent in the qualitative case study research, especially those based on verbal, written and observational information, this research followed a number of procedural precautions. To begin with, it was able to meet the data triangulation criterion through collecting evidence in shape of a semi-structured interview with an institutional manager (S -TBI) and a faculty-entrepreneur, which was complemented by a greater level of on-target observation of institutional processes. Such a strategy increased the lack of reliance on one respondent opinion and leveled out informant bias. Second, neutral and open-ended interview protocols were used to curb the effects of the leading question and the researcher framing effects that can be caused by close-ended questions, which were structured in a way that restricted data collection. Third, contextual validation was also followed through balancing interview accounts with institutional documents, publicly available documents, and practices that are visible in the ecosystem of the campus, enhancing the reliability of the texts. Fourth, the reflective field notes were used to record observations and there was an explicit distinction made between descriptions and analytical interpretations, which alleviated confirmation bias. Besides this, analytical bracketing was also applied during thematic coding whereby, emergent patterns were assessed against other possible interpretations to prevent jumps in drawing causal conclusions. Lastly, thick description was applied to document the institutional context in a transparent manner so that the reader may assess on their own the transferability and interpretive validity. All of this will increase the credibility, dependability, and confirmability of the results, and will be achieving that by ensuring that the subjectivity of the researcher is not removed but merely kept under control.

Sampling Design

This study takes the qualitative single-case study method in its approach of conducting an exploratory inquiry. Based on this, the qualitative sample was composed of two in-depth, semi-structured interviews one with a key institutional representative who is engaged in the running of Siddaganga Technical Business Incubator (S-TBI) and the other was a member of the faculty who has effectively transferred academic research to venture. The respondents were identified through purposive sampling because they have first-hand, first-order experience about the phenomenon being studied, which is the institutional processes and lived entrepreneurship processes that are running in the academic ecosystem. In qualitative case studies, particularly those that are exploratory and instructivist studies, numerical representativeness is rooted behind depth, contextual richness, and informational power. The 2 selected participants were key actors in the case and could offer adequate power of information to meet the objectives of the research by saturating data conceptually. The current paper does not use quantitative methods; thus does not specify a quantitative sample size. The research purpose is not the test of the hypothesis, or the statistical generalization, but the search of the analytical generalization, directed to the production of the insights in the mechanisms of the entrepreneurial academic activity in a determined institutional setting. The use of quantitative methods was intentionally avoided since the phenomenon under study requires an intricate perspective on the processes, choices of governance and, ecosystem processes, which can be fully elucidated using a qualitative method.

Siddaganga Institute Of Technology (SIT)

Siddaganga Institute of Technology is one of the esteemed institutions in India and it was established in the year 1963. It is the one among 127 educational institutions run by Sri Siddaganga Educational Society. The institute is spread over 65 acres with a lush green environment. It an autonomous institute affiliated to Visvesvaraya Technological University, Belagavi, approved by AICTE, New Delhi. At present the institute is offering 13 undergraduate courses and 12 post graduate courses. More than 4000 students are pursuing their degree in the institute.

The institute has a faculty strength of 259 out of which majority of them are Ph.D and are continuously involved in research.

The academic research at SIT is encouraged and the campus with state-of-the-art infrastructure provides all the facilities essential for conducting research. The Table 1 depicts the status of research and the number of publications department wise, including the number of citations, cross references, and h-index.

Table 1: Department-wise Faculty Publications

Departments	Publications	Citations	Cross-Ref Citations	h-index
Architectur	12	5	4	1
Artificial Intelligence and Data Science	4	4	12	1
Biotechnology	39	799	926	15
Chemical	65	389	436	11
Chemistry	285	4436	4845	34
Civil	161	665	601	15
Computer Science and	255	599	487	10
Electrical and Electronics	99	211	182	7
Electronics & Communication	190	793	732	13
Electronics and Instrumentation	46	133	109	6
Electronics and Telecommunication	113	238	247	8
Industrial Engineering and Management	139	1181	998	16
Information Science	183	501	485	10
Mathematics	60	189	119	9
MBA	2	0	1	15
MCA	88	192	172	7
Mechanical	261	2039	1863	18
Physics	113	694	697	14

Source: www.sit.ac.in

The faculty have published 1928 papers in referred journals, conferences and as book chapters for reputed publishers over the years. Among these 1898 papers are published in indexed journals. The number of publications each year from 2019 to 2022 is given in Table 2

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Table 2: Number of papers published by Faculty

Year	Number
2019	194
2020	232
2021	256
2022	153*

*Up to Nov 2022

Source: Library, SIT

Further, the faculty have 18 patents in their names out of which 8 patents were granted in the years 2019-2022. The details of patents are given in the Table 3

Table 3: Patents granted to Faculty

PATENTS	2019	2020	2021
Filed		4	5
Published/Granted	1	1	6

Source: IQAC, SIT

SIT also encourages its faculty to attend discussions and deliberations in various conferences, workshops, and symposium of national and international repute. This enables the faculty to have exposure of the latest research undertaken in their area of interest. Further, the SIT library is well equipped with latest editions of books and subscriptions of journals from leading publishing houses. The faculty are continuously encouraged to work on funded projects and encourage collaborations among faculty of other departments, colleges, and reputed universities.

Siddaganga-TBI (S-TBI)

To foster the existing academic prowess into new ventures and to bridge the gap that exists in terms of skills essential academic research versus the skills necessary for setting up a venture SIT launched the Siddaganga-TBI (S-TBI) in 2019. The S-TBI is created with the vision of enriching and encouraging entrepreneurial activities in and around Tumkur. The S-TBI has state-of-the-art facilities, well equipped laboratories for testing and a team of industry experts to guide and mentor the incubatees. The S-TBI undertakes the responsibility of introducing the start-ups to the mentors who would guide them in converting their technology driven solution or prototype into more marketable solutions. The S-TBI also provides seed funds to these ventures, alongside providing the needful infrastructure. A well-equipped laboratory, workstations, conference rooms, testing facilities are all part of the infrastructure provided by the S-TBI. The feature that makes S-TBI different from other incubation centres include:

1. The S-TBI doesn't take any stake in the ventures created by the faculty, students, or any other person even though they are provided with the seed fund by the S-TBI.
2. It is not restricted to provide only infrastructure support like majority of incubation centres but instead provides industry-led mentorship and networking to convert the academic idea into a fully functional venture

Discussion

The Initialization

The first step that an institution takes to foster academic entrepreneurship is by creating awareness among its faculty and students about all the efforts the institution is taking to foster entrepreneurship. SIT did this by launching the S-TBI and conducting various invited talks under its banner to help faculty realise the potential of their academic research. The faculty and students are appraised by the S-TBI team time and again about the availability of funding opportunity, the networking opportunities arranged, the industry-led talks, funded projects available etc. The library also plays an important role in the process of creating awareness among faculty and students about the opportunities available to them that could take their existing research to the next level.

The Support

SIT is slowly heading towards creating an ecosystem where the ideas from academic research are taken and are converted into prototypes that are further tested to become marketable solutions and are transformed into new ventures. The S-TBI team invites for applications on time-to-time basis to identify the research ideas that can be converted into a marketable product. It identifies the ideas that have the maximum potential to be successful among the ideas received and then starts to collaborate with the creators. Once the ideas are shortlisted, S-TBI enters into an agreement with the idea creator where S-TBI offers them the infrastructure support, the mentorship, industry connect, access to networking events etc. Further, if the creator is interested in obtaining funding, S-TBI also introduces them other investors or offers to fund them through the grants available with the S-TBI. The entire service is offered at a nominal monthly fee, so that it doesn't cause any burden on the incubatees. As discussed earlier the S-TBI doesn't take any share in the company for funding the new venture. The companies working in S-TBI along with management capabilities provided by the S-TBI can also get some skilled technical capabilities too. This can be achieved through providing internships to the graduate students. This is a win-win situation for both as the graduating students get an opportunity to work on a prototype and be involved in every step making it an impeccable learning journey, the start-ups who cannot afford to hire professionals at such an early stage.

Not that these expertise in terms of mentorship, infrastructure, funding, networking are not available anywhere else, or an entrepreneur cannot find them on their own. Today, the internet has made everything available at a fingertip. then what makes S-TBI and the efforts of SIT to create an ecosystem so necessary and unique?

The answer is quite simple honestly. As discussed by one of the founders of the start-ups working in the S-TBI. Having everything under one roof. This ensures that the pace at which work happens is extremely swift. While it would take a start-up at least a week to find a suitable competency as requirement, S-TBI can do it in a day. This gives the founders to work more quickly and efficiently on the product development as they are assured that the competencies that may require on the way can be effectively arranged by the S-TBI. The direct support that the start-ups receive in terms of workspaces, administration support, initial accounting and human resources helps the firms to focus completely on the task in hand that is business development.

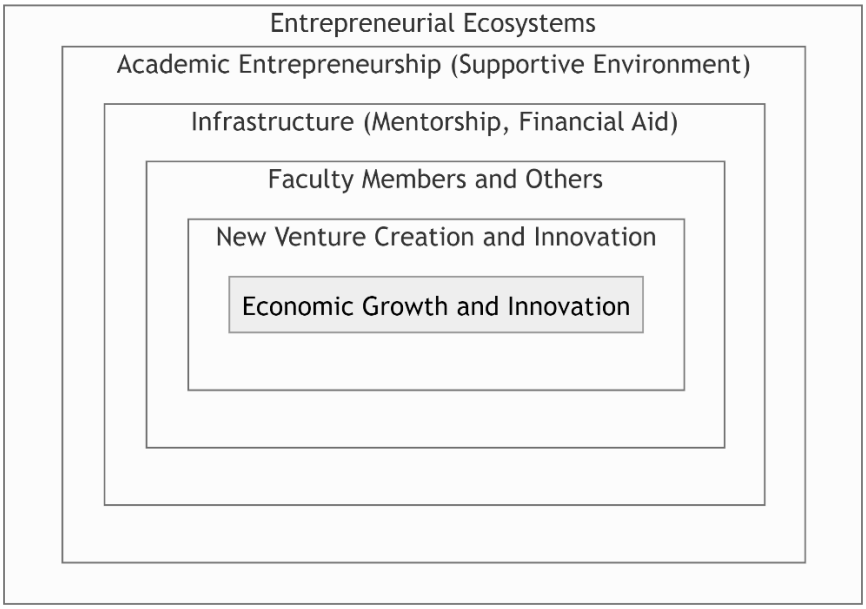
This kind of support through the process of venture creation encourages more and more faculty to undertake academic entrepreneurship as they can see the growth of the existing ventures and now draw clearer picture of the feasibility and viability of the idea.

In the span of just 3 years S-TBI and the ecosystem that SIT planned to create has taken concrete shape. The programmes organised, the awareness created and the motivation that these 2 initial ventures have given to the faculty to pursue academic entrepreneurship is phenomenal.

The study's findings can be connected to the concept of entrepreneurial ecosystems by illustrating how SIT has established a supportive environment for academic entrepreneurship, which is a key component of an entrepreneurial ecosystem. The college's provision of infrastructure, mentorship, and financial aid to faculty members and others without claiming ownership in the resulting ventures is a model that can be replicated by other colleges seeking to foster academic entrepreneurship. The study's implications contribute to the understanding of the process of enhancing academic entrepreneurship and provide insights into creating an ecosystem that can be replicated by other colleges.

This aligns with the idea that entrepreneurial ecosystems are conducive to economic growth as they facilitate the creation, scaling, and sustainability of businesses. The Academic Entrepreneurship Ecosystem showcased in figure 1 highlights the role the institution should play in nurturing the entrepreneurial ecosystem.

Figure 1: The Academic Entrepreneurship Ecosystem



Source: Visualised by the authors

The Academic Entrepreneurship Ecosystem ensures that the Economic growth and innovation remain the crux, that could be nurtured through the creation of the entrepreneurial ecosystem, which encompasses the Innovation among the faculty cherished through the support in terms of financial aid, infrastructure, mentoring and handholding by the institution.

Conclusion

As discussed above, India's academic entrepreneurs are standing at a point of conjecture, and there are great possibilities for variations and influence on the economy. Even though obstacles exist, a more creative systems of higher education are being formed through vacancies together with government input. India, by encouraging invention and enterprise, hopes to be an international powerhouse of knowledge while instilling a sense of inventiveness in all establishments. There are multiple factors that impact on the success of academic entrepreneurship. The steps to progress from academic research to academic entrepreneurship through creation of new ventures can be divided into various stages. The idea identification is the most important phase which acts as a foundation for academic research. After the ideas are identified it has to tested to analyse whether the idea has the potential to disrupt the existing market. This market knowledge of screening and identifying the ideas that have the potential to be successful is of paramount importance in entrepreneurship in general and academic entrepreneurship in particular. This task is undertaken by S-TBI on behalf of the faculty who submit their research ideas. This is the basic requirement for an ecosystem to sustain as an idea which has been examined by the industry experts have lesser probability of failure. Thus, in the process of fostering academic entrepreneurship S-TBI plays a wider role than most other incubators who just provide

infrastructure. The S-TBI has wider scope in terms of support and the faculty has complete influence on the academic research projects, (as S-TBI takes no stakes in the company) making it a win-win for both. As the faculty has no ownership dilution and S-TBI can concentrate on providing necessary support without the hassle of being involved in the profit-making process. This can be looked at the other way where the faculty might perceive that the centre doesn't pay much attention to the venture as they do not have direct benefit attached to it in terms of equity.

Due to the qualitative and interpretive characteristics of this case study, internal biases were prevented by concerted efforts in deriving conclusions out of the verbal, textual, and observational information. The reduction of bias was attained through a system-based triangulation procedure where the information gained through interviewing the main institutional stakeholders was triangulated with observations at the sites, institutional records and public performance indicators. This multi-source design reduced chances of exaggeration of respondents, selective recalling and dominance of single narratives. When doing the analysis, descriptive information was carefully separated, and in the interpretation, judgements were inductively drawn, and not based on prior assumptions. Reflexivity reasoning was used in the entire analytical stage, and it helped the researchers to critically test their positionality and other possible effects of interpretation. Non-confirming or contradictory evidence was held and analyzed instead of rejected and this contributed to the rigor of analysis. Thematic convergence was used to draw the conclusions, focused on consistent mechanisms, including institutional support structures, governance decisions, and ecosystem orchestrations, which occurred among sources of data. Although the inherent contextual constraints of a single-case study are noted in the research, analytical generalisation and not statistical generalisation are stressed upon. The study relies on the transparent evidence chains and evidently presented procedures, which allow ensuring that the conclusions are valid, derived logically, and sound enough to inform the theoretical understanding and practice in the academic entrepreneurship field.

The study's findings can be integrated into the concept of entrepreneurial ecosystems by highlighting the importance of comprehensive support for faculty members and others involved in academic entrepreneurship within the context of a leading engineering college in Karnataka, India. This integration emphasizes the role of HEIs in fostering entrepreneurial ecosystems and the potential for these ecosystems to drive economic growth and innovation.

The current study adds to the contributions made to the literature in academic entrepreneurship and to the overall literature of entrepreneurship. The study presents the process adopted by SIT to foster academic entrepreneurship in the institute by setting up S-TBI. The study adds value to faculty undertaking academic research as they understand the process of academic entrepreneurship. Since a single case study methodology is adopted, the process cannot be generalized. Further research can be conducted on other colleges and the ecosystem created by SIT after the S-TBI starts operating at full capacity.

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