

Building an Entrepreneurial Ecosystem in Professional Colleges: Opportunities and Challenges

Meghna Bandi

Associate Professor
Rishi UBR Women's College, Hyderabad

Abstract

Rapid growth in innovative and creative ideas coupled with various platforms for promoting new ideas is increasingly rising in Professional colleges across India. The growth of Unicorns in India has further led to students and youngsters coming with good entrepreneurial ideas. In order to promote the spirit of Entrepreneurship in the campus, premium institutes have tied up with Government agencies and also incubation centres. It is also clear that globally entrepreneur communities have thrived in ecosystems consciously built around their needs. These observations led to the research initiative to identify the factors that have a direct impact on building an ecosystem that would foster successful entrepreneurial initiatives while the students are still in the campus. The Entrepreneurship Ecosystem refers to the elements, which typically includes individuals, organisations outside the individual entrepreneur that are favourable or unfavourable to the choice of a person to become an entrepreneur, or the probabilities of success following launch. These institutions have an interest in there being more entrepreneurship in the region. The decision to become an entrepreneur is driven by factors which are a combination of both intrinsic and extrinsic elements while it is easier to understand the impact of intrinsic factors like demand and supply, competition etc., the impact of environmental factors is not a well understood area. Documented research explicitly acknowledges the role of external factors, but does not provide deep enough pointers on the influence of such factors influencing entrepreneurship. Across the world, there is a clear need to develop the ecosystem to foster greater entrepreneurship success. The Silicon Valley success story in terms of promoting new business ventures has been attributed to the existence of favourable environmental factors.

Keywords: Entrepreneurship, Ecosystem, Incubation, Campus Entrepreneurs, Organisations

1. Introduction:

“A biological ecosystem as a system of 4 organisms occupying a habitat, together with those aspects of the physical environment with which they interact”. Extending this to the entrepreneurial ventures, entrepreneurial ecosystem is the system of all the factors, institutions, government and overall business environment which affect the growth of the new ventures. New ventures germinate and grow in a better entrepreneurial ecosystem. There are various components of the entrepreneurial ecosystem. The presence of the established venture capital industry, angel investors, private equity industry, access to debt in various forms, soft loans from the government and development agencies are the elements of the financing and funding. University based entrepreneurial ecosystem (U-BEE) or the entrepreneurial ecosystem at the educational institutes are also part of the overall entrepreneurship ecosystems of the nation. With the current government initiating so many new schemes to encourage Start ups in India, now is the right time to take advantage of these schemes and encourage the youth to take up Entrepreneurship as their option.

The Entrepreneurship Ecosystem refers to the elements – individuals, organisations or institutions – outside the individual entrepreneur that are conducive to, or inhibitive of, the choice of a person to become an entrepreneur, or the probabilities of his or her success following launch. Organisations and individuals representing these elements are referred to as entrepreneurship stakeholders. Stakeholders comprise entities that have an interest, actually or potentially, in there being more entrepreneurship in the region. Entrepreneurship stakeholders may include government, schools, Colleges, universities, private sector, family businesses, investors, banks, entrepreneurs, social leaders, research centres, military, labour representatives, students, lawyers, cooperatives, incubation centres, communes, multinationals, private foundations, international aid agencies, and the like.

The Indian Scenario:

Entrepreneurs and start-ups play a key role in addressing ever-evolving challenges such as healthcare, education, environment pollution in India through research, technology and innovations. It is a common phenomenon among Indian entrepreneurs to focus on low cost frugal innovations yet with a highly functional impact.

India is the third-largest start-up ecosystem in the world with almost fifty thousand registered start-ups and annual growth of 12-15% (year). The start-up ecosystem boasts of a vast network of institutional investors, accelerators, and incubators, clustered predominantly in cities with a high urban population and standard of living. Close to 500 start-ups in fields of med-tech, life sciences, biotechnology, deep-tech etc. have emerged out of scientific research in cities such as Bengaluru, Pune, Chennai and Hyderabad.

The research innovation sector is evolving, thanks to various government initiatives, research incubators run by academic institutions, private innovation and research parks. Furthermore, large public funding is available for commercialisation of research etc.

Some of the Start Up Initiatives in India

Start Up India: Start-up India is the largest public Platform offering information on policies, funding schemes, programs & challenges, It offers access to a network of more than 1,40,000 start-ups and 700 incubators.

C-Camp The Centre for Cellular and Molecular Platforms: The Centre for Cellular and Molecular Platforms (C-CAMP) promotes research in life sciences by offering grants and mentorship to over 80 research-based start-ups in fields ranging from agriculture, pharmaceuticals and medical diagnostics. The centre is supported by the Department of Biotechnology (DBT).

The Department of Science and Technology (DST) supports leading academic Institutions to find Technical Research Centres. One such centre at JNCASR, focuses on start-ups with high risk technology and- high potential for global markets. The centre received approximately 4 million Euros for 41 new projects.

2. Objectives of the Study:

The major objectives identified for the study are:

1. To identify the critical factors that form the support for an entrepreneur.
2. To examine the main factors that are conducive for encouraging student entrepreneurs in the campus.
3. To understand the role of the higher educational institutes to provide them the favourable environment to start their own venture.

3. Research Gap and Significance of the Study

A close study of the literature review has shown an extensive study in the USA and European countries. The Entrepreneurial Ecosystem in and around educational Institutions has been studied but not, notably so in Telangana.

The current study is related to the analysis of the entrepreneurial ecosystem for the students of undergraduate, management and Engineering. The ecosystem built in colleges do provide a great incentive to students to gain knowledge and take up entrepreneurship as their career option while studying but much has not been written on the same. Hence, the current study is expected to fill up the research gap.

4. Research Methodology:

- Sample Size: 82
- Data Collection tool: Questionnaire with 11 questions. 10 Closed ended and 1 open ended.
- Statistical tools used in data analysis: Chi-Square, Weighted and Simple Average methods.

5. Limitations of the study:

- The study is confined to a particular geographical area ie Hyderabad TELANGANA
- The specific sampling framework prevents a possible generalisation across the population.

6. Literature review:

Cuki er et al., 2016 We define a startup ecosystem as a “limited region within 30 miles (or 1-hr travel) range, formed by people, their start-ups, and various types of supporting organizations, interacting as a complex system t o create new start-up companies and evolve the existing ones.”

(Isenberg, 2014) considers the role of educational institutions as an important one in the entrepreneurial ecosystems. He termed entrepreneurship education as an important element. He narrates that entrepreneurship, to be self-sustaining, requires an ecosystem, and an ecosystem requires proximity to the educational institutes so the different domains can evolve together and become mutually reinforcing. Entrepreneurship education leads to capital formation, and capital formation would further lead to government reform.

Theodoraki & Messeghem, 2017 The entrepreneurial ecosystem includes three dimensions: actors who form it and their interactions (formal and informal network), physical infrastructure, and culture. (p. 50) The entrepreneurial ecosystem may be described as a generic context aiming to foster entrepreneurship within a given territory. Therefore, it consists of a horizontal network (customers and providers) and a vertical network (competitors and complementors). It also includes organizations supporting entrepreneurs: public or private funding agencies (banks, business angels, venture-capital, etc.); support entities (business incubators, consultants, etc.); research organizations (research centers, laboratories, etc.); and businesses' consortiums (active businesses, associations and trade unions, etc.). (p. 56) The entrepreneurial ecosystem seems to be composed of both physical and non-physical elements. The latter includes elements such as regulation and entrepreneurial culture, which are, for instance, connected to geographic specificities. (p. 57)

Nambisan, S. and Baron, R.A. 2013 Entrepreneurship in innovation ecosystems: Entrepreneurs' self-regulatory processes and their implications for new venture success, *Entrepreneurship: Theory and Practice*

David McClelland claimed that competencies could be used for predicting job performances and further he held that competencies were not biased by race, gender or socio-economic factors. His study helped to identify performance aspects which are not attributable to a worker's intelligence or degree of knowledge and skill.

7. Data Analysis:

The Data has been collected from 82 respondents all from colleges which have active Entrepreneurship cells and activities in their campus.

Demographics of the respondents is as mentioned below:

- Age group- 18-25 years
- Educational Qualification: Undergraduates, B.Tech. and MBA
- Received responses from both male and female students.

1. According to the survey the respondents view that an Entrepreneurial Ecosystem means:

- Having cooperation with Industry experts
- Government agencies
- Incubation centres
- Entrepreneurs
- Funding support
- Start up support
- Product/Market support
- Academic support



2. Respondents were asked if they possess ‘Entrepreneurial Traits’

Particulars	YES	NO	TOTAL
Under Graduate	12	12	52
Post Graduate	6	6	30
Total	64	18	82

Null Hypothesis – There is no significant association between Educational Qualification and Entrepreneurial Traits possessed in individuals.

Alternate Hypothesis – There is a significant association between Educational Qualification and Entrepreneurial Traits possessed in individuals.

Expected Values

EDUCATION/TRAITS	YES	NO
UG/Btech	40.58	11.41
PG	23.41	6.58

Observed value(O)	Expected value (E)	(O-E)	(O-E) ²	(O-E) ² /E
40	40.58	-0.58	0.3364	0.0082
12	11.41	0.59	0.3481	0.03
24	23.41	0.59	0.3481	0.014
6	6.58	-0.58	0.3364	0.051

Chi-square = (Observed value– Expected value)² ÷ Expected value

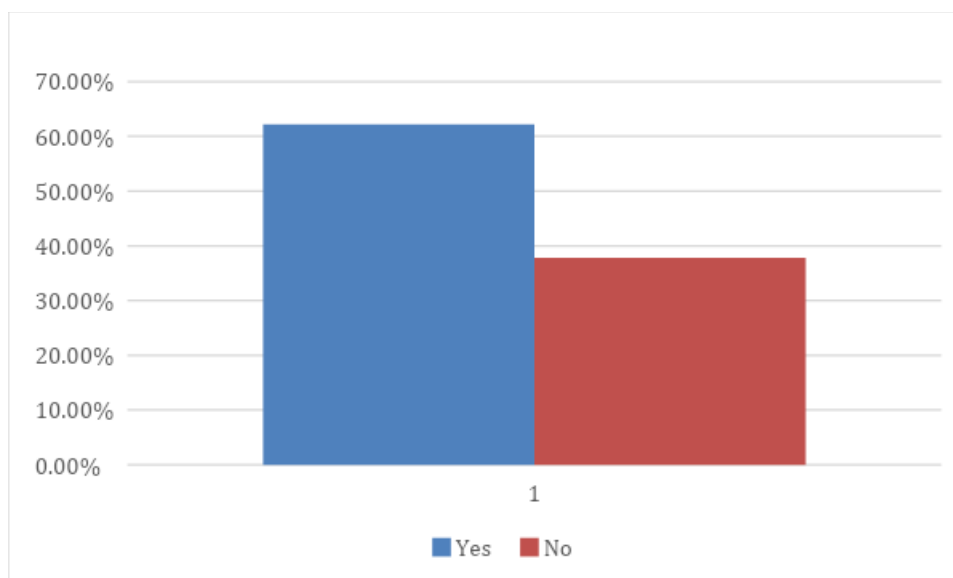
(O-E)² ÷ E = 0.1032

Chi square table value is 0.455

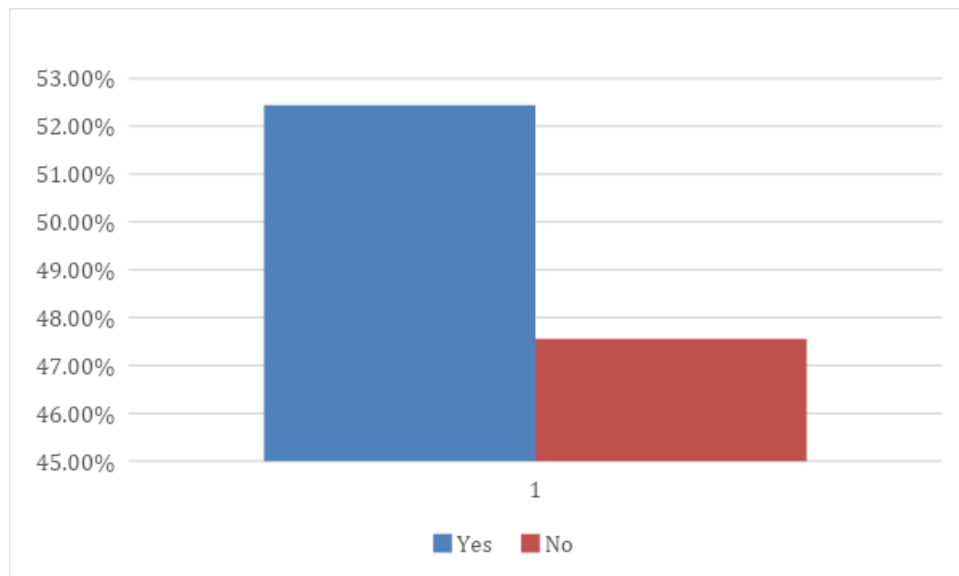
Interpretation:

Chi square calculated value is less than chi square table value, hence we accept the null hypothesis and reject alternative hypothesis.

3. Respondents were asked if they were given Entrepreneurial Training and related activities conducted on the campus.



4. Respondents were asked if they have taken up any Entrepreneurial activity while in campus



5. According to the respondents, the most important factor for a start-up

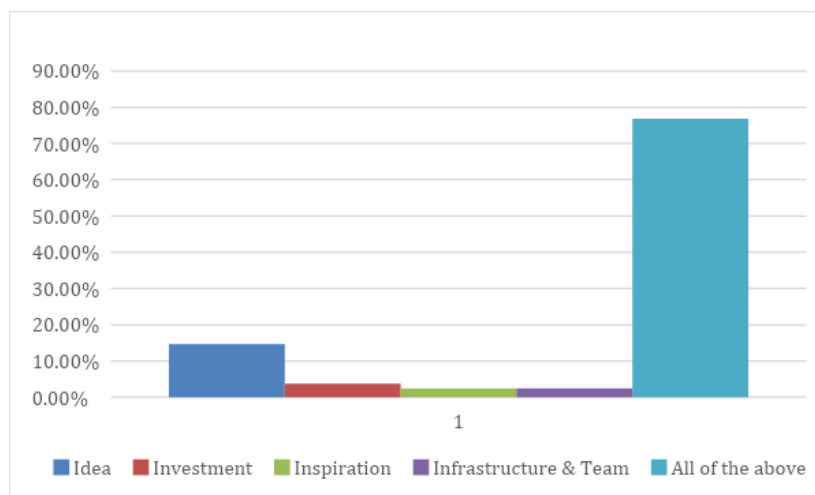


Table 7.4 Respondent’s view on important factors of Start-up

6. Respondent’s View on Starting an Enterprise while in campus or After Gaining Experience

Particulars	GAIN EXPERIENCE	IMMEDIATE Start-Up	TOTAL
UG	30	22	52
PG	14	16	30
TOTAL	44	38	82

Null Hypothesis – There is no significant association between Educational Qualification and their view on Starting up a venture while on campus or after gaining experience.

Alternate Hypothesis – There is significant association between Educational Qualification and their view on Starting up a venture while in campus or after gaining experience.

Expected Values

EDUCATION/TAKE ON	GAIN EXPERIENCE	CAPITALIZE
UG	27.9	24.09
PG	16.09	13.9

Observed value(O)	Expected value (E)	(O-E)	(O-E) ²	(O-E) ² /E
30	27.9	2.1	4.41	0.15

22	24.09	-2.09	4.3681	0.18
14	16.09	-2.09	4.3681	0.271
16	13.9	2.1	4.41	0.317

Chi square calculated value is 0.918
 Chi square table value is 0.455

Interpretation:

Chi square calculated value is greater than chi square table value, hence we reject the null hypothesis and accept alternative hypothesis

7. The various stages of Entrepreneurial Ecosystem



8. All the stakeholders equally important to build the ecosystem

9. Venture capitalists, financial institutions and marketing clarity is needed for the students to build their ventures

8. Findings:

The important factors building an Ecosystem:

Important Factors	
E1	Ecosystem
E2	Innovation
E3	Research
E4	Financial Management
E5	Technology
E6	Direct Seed Investment
E7	Availability and Access to Resources & Industry Interface
E8	Events
E8	Flexibility in structure
E9	Alumni network
E10	Long Term policy for nurturing Ent.
E11	Average Operating Cost
E12	Occupancy rate
E13	Length of tenancy
E14	Average growth of incubates' turnover

- From the above table the respondents feel that these highlighted factors play a major role in the building up of entrepreneurial Ecosystem in colleges.
- There is no significant association between Educational Qualification and Entrepreneurial Traits possessed in individual
- Majority of the students were given Entrepreneurial training in campus.
- Majority of the students didn't take up much Entrepreneurial activities while in campus

- Majority of the students responded that Idea, Investment, Inspiration & Infrastructure and Team are very important entities for a Start-up.
- Majority of the students responded that they need training in Financial support information, Govt. Schemes & Subsidies, Incubation, Market research and Knowledge sharing by practicing entrepreneurs are equally important while in campus.
- Respondents felt that E-Leadership programs, Idea boot camps, Business plan contests, E-Activities, E-Summit & Fests are very important to build the entrepreneurial spark in the student while in campus.
- There is no significant association between Educational Qualification and Willingness to start a venture in campus
- There is no significant association between Educational Qualification and their view on Starting up a venture while in campus or after gaining experience

9. Suggestions/ Implications:

Based on the study the following suggestions can be given:

1. Every professional college must try and build the needed facilities within the campus for creating an awareness and building the spirit of entrepreneurship.
2. Incubation centre needs to be established within the campus.
3. The network of alumni entrepreneurs must be built,
4. MOUs co-operations with the industry and financial institutions must be built/
5. Appropriate trainings and events should be regularly conducted in the college premises.
6. Advanced leadership programmes for the students with innovative and creative mind set must be provided.
7. Institute needs to re-evaluate their programmes, industry alliances, events, etc. to allocate the resources wisely to meet the demand from stakeholders.

10. Conclusion:

It can therefore be concluded that if the needed infrastructure and resources are provided in the professional colleges, more campus entrepreneurs will emerge. There needs to be a proper collaboration with the financial institutions, industry experts, venture capital funds, trained faculty, incubators and the student startups.

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