

THE ROLE OF INNOVATION HUBS AND INCUBATORS IN SUSTAINABLE ENTREPRENEURSHIP IN COIMBATORE

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ABSTRACT

Innovation hubs and business incubators play a pivotal role in fostering sustainable entrepreneurship, particularly in emerging economies and rapidly industrializing cities like Coimbatore, India. As centers for technological advancement, mentorship, funding, and networking, these hubs serve as catalysts for innovative business models that prioritize environmental responsibility, social equity, and economic viability. This study explores the contribution of Coimbatore-based innovation hubs and incubators to the growth of sustainable startups, highlighting their role in capacity building, green technology integration, and market access. Through a qualitative and case-based approach, the research identifies key success factors, challenges, and policy implications for scaling sustainable ventures in the region. The findings emphasize the strategic importance of nurturing an ecosystem that aligns entrepreneurial innovation with the principles of sustainability to drive long-term regional development.

In the face of escalating environmental challenges and shifting economic paradigms, sustainable entrepreneurship has emerged as a crucial driver of inclusive and resilient development. Innovation hubs and business incubators, as structured support systems, are increasingly recognized for their vital role in nurturing such entrepreneurial ventures. This study examines the impact and influence of innovation hubs and incubators on promoting sustainable entrepreneurship in Coimbatore, a dynamic industrial and educational hub in South India. By fostering an ecosystem that combines access to infrastructure, mentoring, funding, skill development, and collaboration opportunities, these institutions are enabling startups to innovate responsibly while addressing local and global sustainability goals.

INTRODUCTION

In recent years, sustainable entrepreneurship has gained significant attention as a key approach to addressing pressing global challenges such as climate change, resource depletion, and social inequality. Unlike traditional business models that prioritize profit above all, sustainable entrepreneurship seeks to create economic value while simultaneously generating positive environmental and social impact. In this context, innovation hubs and

incubators have emerged as critical enablers, providing startups with the resources, mentorship, and collaborative platforms needed to build and scale sustainable ventures.

Coimbatore, often referred to as the "Manchester of South India," is a rapidly growing industrial and educational city with a strong foundation in manufacturing, textiles, information technology, and agriculture. The city has also witnessed the emergence of several innovation hubs, technology parks, and business incubators that actively support entrepreneurial activities. These institutions—including entities like PSG-STEP, Forge Innovation and Ventures, and the TREC-STEP—play a pivotal role in shaping the region's startup ecosystem.

OBJECTIVES

- To study the collaboration between industry, academia, and government bodies.
- To explore the challenges faced by sustainable startups.
- To assess the impact of innovation hubs on the growth of green startups.

RESEARCH TECHNIQUE

Creating the research project's design involves defining the research problems. Coimbatore City was chosen to gather data. A practical sample technique is used in this investigation. The researcher chose the sample of respondents based on convenience. A variety of data collection techniques are employed for the investigation. Here, two primary categories of data collection techniques are employed. There are two types of data: Primary and secondary. This is the initial collection of primary data. A survey using a carefully crafted questionnaire is used to gather primary data for this investigation. Books, Journals, and the internet are the sources of secondary data. A total of 120 samples were gathered from the questionnaire. A straightforward percentage, one way Anova, Weighted average rank, Regression.

REVIEW OF LITERATURE

Phillips, R.G. (2002), This paper assesses the role of technology business incubators (TBIs) in technology transfer and commercialization. The study highlights how incubators facilitate knowledge exchange between research institutions and startups. Using case studies from North America and Europe, the research finds that TBIs enhance innovation by providing startups with access to research labs, intellectual property (IP) support, and prototyping facilities. The study also identifies key challenges, such as funding constraints and limited university-industry collaboration. The findings suggest that TBIs must focus on commercialization strategies and industry partnerships to maximize their impact.

Shane, S., & Stuart, T. (2002), This research examines how university-affiliated startups perform compared to independent ventures. The study finds that startups emerging from university incubators have higher survival rates due to access to academic resources, funding, and mentorship. Using empirical data from university spin-offs, the authors show that technology transfer offices play a crucial role in supporting innovation. The study also discusses the challenges of commercializing university research, including IP conflicts and limited business expertise among academic founders. The paper concludes that universities must adopt entrepreneurial mindsets to enhance the success of their incubated ventures.

Aernoudt, R. (2004), This widely cited paper classifies business incubators into different categories, including university incubators, social incubators, and corporate incubators. The author examines the effectiveness of each type in supporting entrepreneurship. Key findings suggest that university-affiliated incubators are most effective in knowledge-driven economies, while social incubators play a critical role in sustainable development. The study also highlights that access to venture capital is a crucial determinant of incubator success. The paper concludes that a hybrid model combining public and private incubation services can provide the best outcomes for sustainable entrepreneurship.

STATEMENT OF PROBLEM

Innovation hubs and incubators play a crucial role in fostering entrepreneurship, yet their impact on sustainable business development in Coimbatore remains underexplored. Many startups struggle with accessing adequate funding, mentorship, and infrastructure to integrate sustainable practices into their business models. The effectiveness of incubators in promoting long-term sustainability and economic growth is still unclear.

ANALYSIS AND FINDINGS:

TABLE SHOWING AGE OF THE RESPONDENTS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	20 – 25 years	35	29%
2	26 – 30 years	27	23%
3	31 – 35 years	19	16%
4	36 – 40 years	19	16%
5	Above 40 years	20	17%
	TOTAL	120	100%

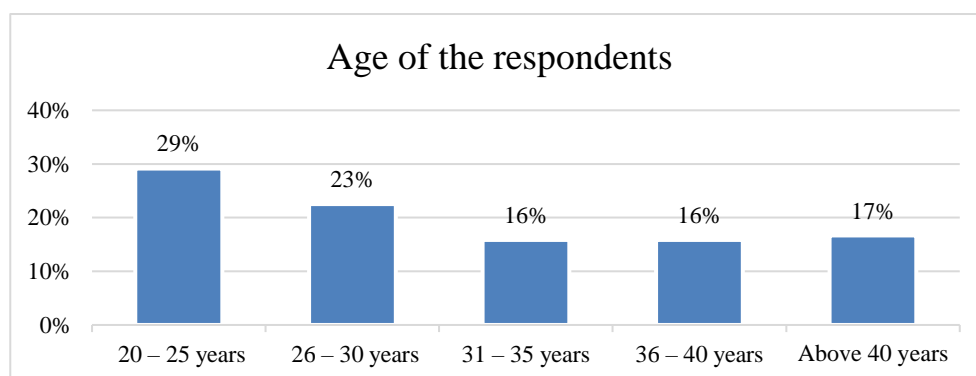
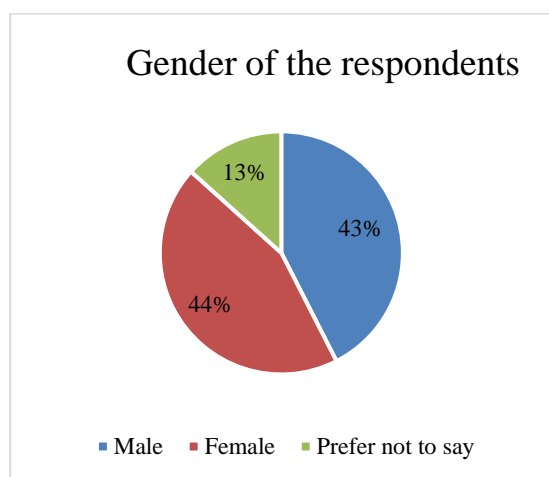


TABLE SHOWING GENDER OF THE RESPONDENTS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Male	51	43%
2	Female	53	44%
3	Prefer not to say	16	13%
	TOTAL	120	100%

Source: Primary Data


TABLE SHOWING EDUCATIONAL QUALIFICATION OF THE RESPONDENTS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	School level	25	21%
2	Diploma	34	28%
3	Undergraduate	23	19%
4	Post graduate	34	28%
5	Others	4	3%
	TOTAL	120	100%

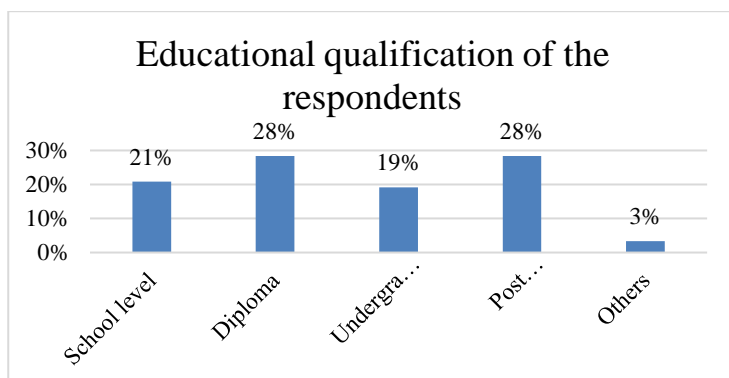


TABLE SHOWING ASSOCIATION WITH ANY INNOVATION HUB/INCUBATOR IN COIMBATORE

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Yes	100	83%
2	No	20	17%
	TOTAL	120	100%

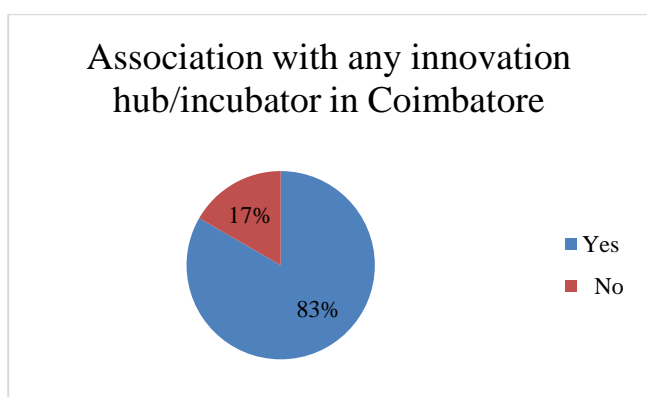


TABLE SHOWING MODE OF KNOWING ABOUT INCUBATORS AND INNOVATION HUBS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Social media	37	31%
2	Friends/Colleagues	37	31%
3	University/College	35	29%
4	Government Initiatives	10	8%
5	Others	1	1%
	TOTAL	120	100%

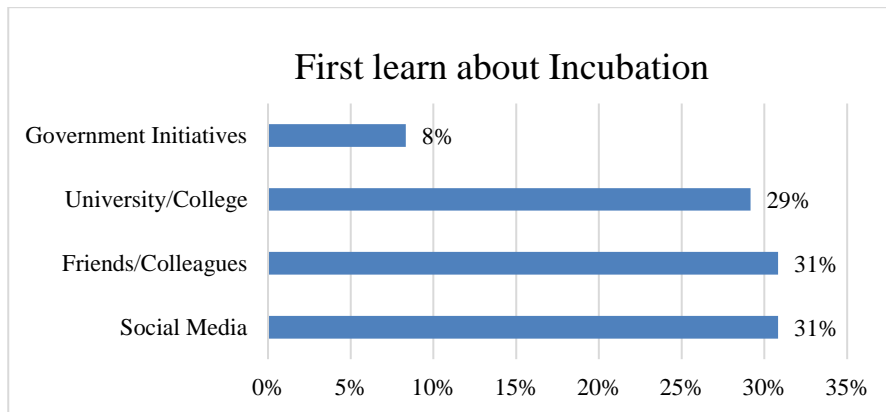


TABLE SHOWS RANK THE FOLLOWING BASED ON THE FACTOR AWARENESS AND ACCESSIBILITY OF INNOVATION HUBS

S.NO.	PARTICULARS	RANK 5	RANK 4	RANK 3	RANK 2	RANK 1	WEIGHTED AVERAGE	WEIGHTED AVERAGE RANK
1	I am aware of the existence of innovation hubs and incubators in Coimbatore.	57	34	23	1	5	33.133	3
2	Innovation hubs are easily accessible for entrepreneurs and startups.	58	32	22	2	6	32.933	4
3	The promotion of innovation hubs and incubators is sufficient in Coimbatore.	57	34	23	1	5	33.133	3
4	Entrepreneurs receive adequate information on how to apply for incubation programs.	64	29	24	1	2	34.133	2
5	The entry requirements for incubators are reasonable and inclusive.	65	29	24	0	2	34.333	1

FINDINGS:

AGE: The majority of the respondent shows that (29%) between the group of 20-25 years old.

GENDER: The majority of the respondent shows that (44%) are female

EDUCATIONAL QUALIFICATION: The majority of the respondent shows that (28%) were post graduates.

ASSOCIATION WITH ANY INNOVATION HUB/INCUBATOR IN COIMBATORE: A significant 83% of respondents are associated with an innovation hub, reflecting widespread participation. Only 17% are not involved, suggesting limited barriers to access.

MODE OF KNOWING ABOUT INCUBATORS AND INNOVATION HUBS: The Majority of the respondent (31%) knowing about incubators and innovation hubs is social media

RANK THE FOLLOWING BASED ON THE FACTOR AWARENESS AND ACCESSIBILITY OF INNOVATION HUBS

INTERPRETATION:

From the above table 4.10 it is inferred that the feature,

- The most highly ranked factor is the reasonableness of entry requirements (34.333), showing ease of access.
- Entrepreneurs receiving adequate application information ranks second (34.133), indicating sufficient guidance.
- Awareness of innovation hubs ranks third (33.133), showing moderate knowledge levels.
- The lowest-ranked factor is accessibility (32.933), highlighting a potential barrier to participation.

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CONCLUSION

The study clearly reveals that innovation hubs and incubators in Coimbatore are playing a pivotal role in nurturing entrepreneurship, especially among youth and educated individuals. There is a high level of awareness and engagement, fuelled largely by informal networks and academic institutions. The hubs are especially appreciated for providing funding, infrastructure, and mentorship, which are crucial for early-stage startups.

However, there are areas for improvement, notably in market access, training, and promotion through official/governmental channels. The results from ANOVA and regression analysis suggest that while awareness

levels vary significantly with age, challenges do not deter engagement significantly, indicating a high motivation level among entrepreneurs.

To capitalize on this enthusiasm, innovation hubs must adopt a more inclusive, targeted, and resource-rich approach. Doing so will not only bridge current gaps but also further Coimbatore's standing as a thriving ecosystem for sustainable entrepreneurship. The study highlights strong engagement with innovation hubs, especially among younger individuals. Financial support and mentorship are critical factors for startups. The most significant challenges include market access, funding limitations, and bureaucratic hurdles. Awareness levels differ across age groups, necessitating age-specific outreach strategies. Innovation hubs effectively promote sustainable entrepreneurship, but improvements in training and market access are needed. Future research should explore additional factors influencing engagement beyond challenges in accessing incubators.

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