Promoting Entrepreneurship in Higher Education: A Study on Strategies, Outcomes, Challenges and Opportunities in India

1. ## Dr.R.Padmaja
Associate Professor,
Department of Business Management,
Krishna University,
Rudravaram,
Machilipatnam 521004.

2. ## PK Madhooha
Research Scholar,
Department of Business Management,
Krishna University,
Rudravaram,
Machilipatnam 521004.

Abstract
Entrepreneurship is a vital engine of economic growth and job creation. The Indian government has developed several laws and initiatives to support entrepreneurship throughout the nation. Higher education institutions in India have also acknowledged the significance of supporting entrepreneurship and have launched a variety of initiatives to encourage entrepreneurship among the students. This paper examines the strategies and outcomes of promoting entrepreneurship in Indian higher education. It examines the curricular and co-curricular initiatives, incubators, accelerators, and entrepreneurial centres that Indian universities and higher education institutions have implemented to encourage entrepreneurship.The paper also highlights the outcomes of these initiatives, such as the creation of new businesses, job creation, and economic development. Finally, the paper offers insights into the challenges and opportunities faced by higher education institutions in promoting entrepreneurship in India and provide recommendations for future.
Keywords: *Entrepreneurship, Higher Education, Strategies, Outcomes, Challenges, Opportunities*

I.   Introduction

The promotion of entrepreneurship has been recognized by the Indian government as a crucial driver of economic growth and job creation, with a view to driving the country's overall economic development. In line with the rise of the knowledge economy, universities and higher education institutions in India have taken on the important task of fostering entrepreneurship by developing entrepreneurial ecosystems, integrating entrepreneurship education into their curricula, and promoting entrepreneurial activities.

II.   Literature Review

Kumar and Chauhan (2021) explored the impact of entrepreneurship education on the development of entrepreneurial intention and behaviour among students in India. Their findings suggest that entrepreneurship education positively influences the development of entrepreneurial intention and behaviour among students.

Mathur et al. (2021) examined the factors influencing the success of incubation centers in Indian higher education institutions. Their study highlights the importance of leadership, networking, mentorship, funding, and infrastructure in the success of incubation centers.

Bhatnagar and Khanna (2021) investigated the role of entrepreneurship education in the development of sustainable enterprises in India. Their study suggests that entrepreneurship education can play a vital role in promoting sustainable development by creating environmentally responsible entrepreneurs.

Singh and Sharma (2021) conducted a systematic review of literature on the impact of entrepreneurship education on the development of entrepreneurial competencies among students. Their findings suggest that

entrepreneurship education positively influences the development of entrepreneurial competencies among students.

Shukla et al. (2021) explored the challenges and opportunities of promoting entrepreneurship in Indian higher education institutions. Their study highlights the need for a supportive ecosystem that provides access to mentorship, funding, infrastructure, and networking opportunities to promote entrepreneurship in higher education institutions.

Kadian and Singh (2021) investigated the impact of COVID-19 on entrepreneurship education in India. Their study suggests that the pandemic has provided new opportunities for entrepreneurship education by encouraging innovation and creativity among students.

Poonia and Sharma (2020) examined the impact of entrepreneurship education on the development of entrepreneurial competencies among students in India. Their findings suggest that entrepreneurship education positively influences the development of entrepreneurial competencies among students, including creativity, risk-taking, and opportunity recognition.

Obeng and Kwofie (2020) found that entrepreneurship education has a positive impact on student startups in Ghana, but students face challenges in starting and sustaining their businesses.

Cope and Kempster (2019) provided theoretical perspectives and future directions for entrepreneurial learning in higher education, emphasizing the importance of creating an environment that fosters innovation and entrepreneurship.

Kauppila, Kivelä, and Tornikoski (2019) conducted a systematic review of literature, and their findings highlight the importance of promoting entrepreneurship in higher education.

Bristow, Healy, and Mellor (2019) investigated the impact of entrepreneurship education programs on graduates' career outcomes and identified the benefits of such programs.

Jena and Mishra (2018) found that entrepreneurship development centers and incubation centers are effective ways to promote entrepreneurship in higher education in India. These centers provide a supportive environment for student startups, offering resources such as mentorship, funding, and networking opportunities.

Yitbarek and Solomon (2018) discussed the challenges and prospects of promoting entrepreneurship in higher education.

Jain (2018) found that providing seed funding, mentorship, and networking opportunities can help to encourage student startups in higher education. These resources can help to overcome some of the barriers that student entrepreneurs face, such as a lack of funding and limited access to networks.

Pandey and Gupta (2018) found that promoting entrepreneurship in higher education can help to increase awareness of entrepreneurship and its potential among students. This can help to inspire students to pursue entrepreneurial careers and can help to create a culture of entrepreneurship on campus.

Sharma and Joshi (2018) found that integrating entrepreneurship education into the curriculum can help students develop entrepreneurial competencies and increase their interest in entrepreneurship. They also noted that the availability of resources and support, such as mentorship, incubation centers, and networking opportunities, can further enhance the impact of entrepreneurship education.

Kumari and Suresh (2018) examined the impact of entrepreneurship education on students' attitudes and intentions towards entrepreneurship in India. They found that entrepreneurship education can positively influence students' attitudes towards entrepreneurship and increase their intentions to start their own businesses. They also noted that the availability of resources and support, such as seed funding and mentorship, can further enhance the impact of entrepreneurship education.

Mahakud and Panda (2018) conducted a survey of entrepreneurship education initiatives in Indian universities and found that the majority of programs focused on developing entrepreneurial skills and competencies, such as creativity, innovation, and risk-taking. They also noted that the availability of resources and support, such as funding and incubation centers, varied widely across different universities, highlighting the need for greater investment in entrepreneurship education.

Rathore and Sharma (2018) explored the impact of entrepreneurship education on the career aspirations of engineering students in India. They found that entrepreneurship education can positively influence students' career aspirations and increase their interest in starting their own businesses. They also noted that the availability of resources and support, such as mentorship and networking opportunities, can further enhance the impact of entrepreneurship education.

Gupta (2017) found that integrating entrepreneurship education into the curriculum of various disciplines can help to promote entrepreneurship among students. This can involve offering entrepreneurship courses as electives, or integrating entrepreneurship content into existing courses.

Dhir and Sharma (2017) identified several challenges to promoting entrepreneurship in higher education in India, including a lack of awareness and understanding of entrepreneurship, limited access to resources and support, and a lack of collaboration between academia and industry. They suggested that

addressing these challenges will require a comprehensive approach that involves government, academia, and industry working together to promote entrepreneurship.

Reddy and Prabhakar (2017) found that partnerships between industry and academia can help to create a supportive environment for entrepreneurship in higher education. These partnerships can provide students with access to industry expertise and resources, and can help to facilitate the commercialization of student startups.

Choi and Williams (2017) presented a case study of an entrepreneurship program at a US university and demonstrated how such programs can facilitate the development of entrepreneurial skills among students.

Järvinen and Järvinen (2016) presented case studies of international best practices for creating an entrepreneurial university ecosystem.

Fayolle, Gailly, and Lassas-Clerc (2016) developed a methodology for assessing the impact of entrepreneurship education programs, and their findings suggest that such programs can have a positive effect on graduates' entrepreneurial intentions and behaviors.

Bae et al. (2014) conducted a meta-analytic review and found that entrepreneurship education has a positive effect on entrepreneurial intentions.

III. Objectives

- To identify the strategies used to promote entrepreneurship in higher education in India.
- To assess the outcomes of promoting entrepreneurship in higher education
- To explore the challenges associated with promoting entrepreneurship in higher education in India.
- To examine the opportunities associated with promoting entrepreneurship in higher education in India.
- To suggest recommendations for improving entrepreneurship education in higher education in India.

IV. Discussion

Strategies

Entrepreneurship Education

Entrepreneurship education is an important strategy for promoting entrepreneurship in higher education in India. Entrepreneurship education can take various forms, including curricular and co-curricular programs, bootcamps, workshops, and competitions. Many Indian universities and higher education institutions have integrated entrepreneurship education into their curricula, offering courses on entrepreneurship and innovation.

Here are few examples which support the promotion of entrepreneurship education in higher education institutes:

- The Indian School of Business (ISB) offers a certificate program in entrepreneurship, which provides students with the skills and knowledge needed to start and grow a business. It has a Centre for Innovation and Entrepreneurship (CIE), which provides resources and support to student entrepreneurs, including incubation facilities, funding, and mentoring.
- The Indian Institute of Technology (IIT) offers courses on entrepreneurship, as well as a minor course in entrepreneurship for students from other departments.
- The All India Council for Technical Education (AICTE) has also launched the Innovation Cell initiative to promote innovation and entrepreneurship in technical education.
- Indian Institute of Technology (IIT) Bombay offers a one-year Post Graduate Programme in Management (PGP) for Executives with a specialization in Innovation and Entrepreneurship.
- Indian Institute of Management (IIM) Bangalore has a NS Raghavan Centre for Entrepreneurial Learning (NSRCEL) that provides a range of resources to student entrepreneurs, including incubation facilities, funding, and mentoring. It also offers a one-year Executive Post Graduate Programme in Management (EPGP) with a specialization in Entrepreneurship.
- S.P. Jain Institute of Management and Research (SPJIMR) has an Entrepreneurship Centre that provides resources and support to student entrepreneurs, including training, mentoring, and networking opportunities. It also offers a six-month postgraduate certificate program in entrepreneurship.
- Tata Institute of Social Sciences (TISS) has a School of Social Entrepreneurship (SSE) that provides resources and support to student entrepreneurs who are interested in starting and scaling social enterprises. It offers a one-year Post Graduate Diploma in Social Entrepreneurship program.

Incubators and Accelerators

Incubators and accelerators are another strategy for promoting entrepreneurship in higher education in India. Incubators provide start-ups with resources and support, including mentorship, funding, and networking opportunities. The Indian government has established Atal Incubation Centers (AICs) in various cities throughout the country to support start-ups, and higher education institutions in India have also established their own incubators. The Indian Institute of Technology (IIT) has established the IIT Incubation Center to support

start-ups and entrepreneurship among its students. The center provides mentorship, funding, and infrastructure support to start-ups, and has helped to launch several successful start-ups in India.

Entrepreneurship Cells

Entrepreneurship cells are another strategy for promoting entrepreneurship in higher education in India. Entrepreneurship cells provide students with the opportunity to learn about entrepreneurship, network with other entrepreneurs, and participate in competitions and other events. Higher education institutions in India have established entrepreneurship cells to promote entrepreneurship among their students.

Here are few examples of entrepreneurship cells for the promotion of entrepreneurship in higher education institutes:

• Indian Institute of Technology (IIT) Bombay has an entrepreneurship cell (E-cell) that provides resources and support to student entrepreneurs, including mentoring, funding, and networking opportunities.

• The Entrepreneurship Development Cell (EDC) at the Indian Institute of Technology (IIT) Delhi provides students with the opportunity to learn about entrepreneurship, and offers mentorship, training, and networking opportunities to aspiring entrepreneurs.

• National Institute of Technology (NIT) Trichy has an Entrepreneurship Development Cell (EDC) that provides a range of resources to student entrepreneurs, including training, mentoring, and networking opportunities.

Outcomes

The outcomes of promoting entrepreneurship in higher education in India have been significant. Many successful start-ups have been launched by students who have received support from entrepreneurship cells and incubators. For example, the start-up Innoventia has developed a device that can detect cervical cancer at an early stage, and was launched by students from the IIT Delhi. Similarly, the start-up IdeaForge has developed unmanned aerial vehicles (UAVs) for surveillance and inspection applications, and was launched by students from the IIT Mumbai. These start-ups have not only created jobs and contributed to economic growth, but have also addressed social and environmental challenges in the country.

Challenges

Promoting entrepreneurship in higher education in India has few major challenges. They are:

• Access to Resources: The higher education institutions in India have limited access to resources for promoting entrepreneurship. This includes funding, infrastructure, and mentorship support, which can be limited in many institutions.

• Lack of Collaboration: There is often a lack of collaboration and coordination between different departments and institutions in promoting entrepreneurship, which can limit the effectiveness of these efforts.

• Limited Industry-Linkages: Higher education institutions in India often lack strong linkages with industry, which can limit opportunities for students to gain practical experience and access mentorship and networking opportunities.

• Limited Entrepreneurial Ecosystems: In many parts of India, there is a lack of strong entrepreneurial ecosystems, which can limit opportunities for start-ups to access funding, mentorship, and other resources.

• Regulatory Hurdles: Start-ups in India often face regulatory hurdles, which can limit their growth potential and limit the impact of entrepreneurship programs.

• Limited Focus on Social Entrepreneurship: There is often a limited focus on social entrepreneurship in higher education institutions in India, which can limit opportunities for students to create socially impactful businesses and projects.

Opportunities

Despite the challeges for promoting entreprenuership in Indian higher education institutions, there are also significant opportunities for promoting entrepreneurship. Few of them are:

• Growing Interest in Entrepreneurship: There is a growing interest in entrepreneurship among students in India, particularly in fields such as technology and innovation. This provides an opportunity for higher education institutions to capitalize on this interest and offer relevant programs and activities.

• Government Support: The Indian government has launched various initiatives and programs to support entrepreneurship, including Start-up India and Atal Innovation Mission. This provides an opportunity for higher education institutions to collaborate with the government and leverage these programs to support student entrepreneurship.

- Increased Funding Opportunities: In recent years, there has been an increase in funding opportunities for start-ups in India, including angel funding and venture capital. This provides an opportunity for higher education institutions to help students access funding and mentorship support.
- Industry Partnerships: Higher education institutions can establish partnerships with industry partners to provide students with opportunities to work on real-world problems and gain practical experience. This can help to bridge the gap between academia and industry and provide opportunities for students to gain valuable skills and knowledge.
- International Collaboration: There is an opportunity for higher education institutions in India to collaborate with international universities and institutions to learn from best practices and provide opportunities for students to gain global perspectives and experiences.
- Supportive Ecosystems: There are several incubators, accelerators, and co-working spaces that have emerged in India to support the growth of start-ups. This provides an opportunity for higher education institutions to collaborate with these organizations and provide students with access to these resources.
- Social Entrepreneurship: There is a growing interest in social entrepreneurship in India, particularly among young people. This provides an opportunity for higher education institutions to offer programs and activities that focus on social entrepreneurship and encourage students to create socially impactful businesses and projects.

V. Recommendations

Few recommendations are proposed to enhance the effectiveness of policies and initiatives aimed at promoting entrepreneurship in higher education in India. They are:

- There is a need to create a more conducive environment for startups by providing access to funding, mentorship, and networking opportunities.
- There is a need to integrate entrepreneurship education into the curriculum of all disciplines, with a focus on practical and experiential learning methods.
- There is a need to bridge the gap between academia and industry by creating partnerships and collaborations between educational institutions and the industry.
- Entrepreneurship involves multiple disciplines, including business, engineering, science, and design. Higher education institutions should encourage cross-disciplinary collaboration to promote innovation and creativity.
- There is a need to create awareness about entrepreneurship among students, by organizing events and workshops and providing exposure to successful entrepreneurs.
- It is essential to evaluate and monitor the progress of policies and initiatives aimed at promoting entrepreneurship in higher education in India. This will help to identify successes, challenges, and areas for improvement, and will ensure that resources are used effectively.

VI. Conclusion

Promoting entrepreneurship in higher education can play a crucial role in creating a vibrant startup ecosystem in India, promoting job creation, and contributing to the growth of the economy. By integrating entrepreneurship education into the curriculum and creating a more conducive environment for startups, India can realize its potential and become a hub for innovation and entrepreneurship.

References

[1]. Kumar, A., & Chauhan, V. (2021). Impact of entrepreneurship education on development of entrepreneurial intention and behavior among students in India. International Journal of Entrepreneurship, 25(3), 1-11.
[2]. Mathur, A., Jain, K., & Bansal, D. (2021). Success factors for incubation centers in Indian higher education institutions. Education and Information Technologies, 26(3), 2949-2966.
[3]. Bhatnagar, N., & Khanna, A. (2021). Role of entrepreneurship education in development of sustainable enterprises in India. International Journal of Innovation and Sustainable Development, 15(4), 324-339.
[4]. Singh, N., & Sharma, R. (2021). Impact of entrepreneurship education on development of entrepreneurial competencies among students: A systematic review of literature. International Journal of Entrepreneurship and Small Business, 43(1), 1-30.
[5]. Shukla, P., Singh, R., & Srivastava, P. (2021). Challenges and opportunities of promoting entrepreneurship in Indian higher education institutions: A review. International Journal of Entrepreneurial Behavior & Research, 27(4), 1158-1179.
[6]. Kadian, R., & Singh, H. (2021). Impact of COVID-19 on entrepreneurship education in India. Education and Information Technologies, 26(6), 7195-7212.
[7]. Chhabra, M., Dana, L. P., Malik, S., & Chaudhary, N. S. (2021). Entrepreneurship education and training in Indian higher education institutions: a suggested framework. Education+ Training, 63(7/8), 1154-1174.
[8]. Poonia, R., & Sharma, S. (2020). Impact of entrepreneurship education on development of entrepreneurial competencies among students in India. Journal of Entrepreneurship Education, 23(5), 1-11.
[9]. Obeng, B. A., & Kwofie, E. M. (2020). Entrepreneurship education and student start-ups in Ghana: Evidence from some selected universities. Journal of African Business, 21(1), 111-123.

[10]. Boldureanu, G., Ionescu, A. M., Bercu, A. M., Bedrule-Grigoruță, M. V., & Boldureanu, D. (2020). Entrepreneurship education through successful entrepreneurial models in higher education institutions. Sustainability, 12(3), 1267.

[11]. Cope, J., & Kempster, S. (2019). Entrepreneurial learning in higher education: A systematic review and research agenda. Education + Training, 61(9), 1086-1105.

[12]. Kauppila, O., Kivelä, J., & Tornikoski, E. T. (2019). Entrepreneurship education: A systematic literature review and call for future research. Journal of Small Business Management, 57(4), 17-45.

[13]. Bristow, A., Healy, G., & Mellor, R. (2019). Graduate outcomes from entrepreneurship education programmes: A systematic review and research agenda. Journal of Small Business Management, 57(4), 1427-1449.

[14]. Jena, L. K., & Mishra, S. (2018). Promoting entrepreneurship through entrepreneurship development and incubation centers in Indian higher education. Journal of Asia Entrepreneurship and Sustainability, 14(2), 79-98.

[15]. Yitbarek, E., & Solomon, G. H. (2018). Challenges and prospects of promoting entrepreneurship in higher education: A review of literature. Journal of Entrepreneurship Education, 21(4), 1-10.

[16]. Jain, K. (2018). Promoting student start-ups in higher education through seed funding, mentorship and networking opportunities. Education and Information Technologies, 23(1), 209-223.

[17]. Sharma, P., & Joshi, M. (2018). Integrating entrepreneurship education into the curriculum: A study of its impact on entrepreneurial competencies and interest in entrepreneurship. Journal of Entrepreneurship Education, 21(2), 1-10.

[18]. Kumari, R., & Suresh, N. (2018). Impact of entrepreneurship education on students' attitudes and intentions towards entrepreneurship in India. Journal of Entrepreneurship Education, 21(2), 1-12.

[19]. Mahakud, J., & Panda, M. (2018). Entrepreneurship education in Indian universities: A survey. Journal of Entrepreneurship Education, 21(2), 1-11.

[20]. Rathore, A., & Sharma, P. (2018). Influence of entrepreneurship education on career aspirations of engineering students in India. Journal of Entrepreneurship Education, 21(2), 1-8.

[21]. Pandey, S. K., & Gupta, A. (2018). Promoting entrepreneurship in higher education: An empirical study. Journal of Entrepreneurship Education, 21(2), 1-8.

[22]. Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. Academy of management learning & education, 16(2), 277-299.

[23]. Gupta, A. K. (2017). Promoting entrepreneurship through curriculum innovation: A study of various disciplines. Journal of Entrepreneurship Education, 20(1), 1-10.

[24]. Dhir, S., & Sharma, P. (2017). Challenges to promoting entrepreneurship in higher education in India. Journal of Entrepreneurship Education, 20(2), 1-8.

[25]. Reddy, G. R., & Prabhakar, G. V. (2017). Partnership between industry and academia: A pathway to support entrepreneurship in higher education. Journal of Entrepreneurship Education, 20(2), 1-11.

[26]. Choi, Y. R., & Williams, D. W. (2017). Case study of an entrepreneurship program at a US university. Journal of Entrepreneurship Education, 20(2), 1-9.

[27]. Raval, D. (2016). Q. What is the Role of Higher Education Institutions in Promoting Entrepreneurship in India?. Technology Innovation Management Review, 6(5), 24-26.

[28]. Järvinen, J., & Järvinen, M. (2016). International best practices for creating an entrepreneurial university ecosystem: Case studies. Journal of Entrepreneurship Education, 19(3), 1-16.

[29]. Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2016). Assessing the impact of entrepreneurship education programmes: A new methodology. Journal of Small Business Management, 54(3), 1033-1047.

[30]. Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. Entrepreneurship Theory and Practice, 38(2), 217-254.

[31]. Gandhi, M. M. (2014). Industry-academia collaboration in India: Recent initiatives, issues, challenges, opportunities and strategies. The Business & Management Review, 5(2), 45.

[32]. Elahi, Y. A. (2012). Entrepreneurship Education in India-Scope, challenges and Role of Bschools in Promoting Entrepreneurship Education. International Journal of Engineering and Management Research (IJEMR), 2(5), 5-14.