

DESCRIPTIVE CASE STUDY ON AWARENESS AND PERCEPTION OF THE IMPORTANCE OF TECH BUSINESS INCUBATOR (CSJM INNOVATION FOUNDATION) AND NEP 2020 IN HEI

Shilpa Deshpande Kaistha^{1*}, Anil Kumar Tripathi²

^{1*}Chhatrapati Shahu Ji Maharaj University Kanpur Shilpakaistha@Csjmu.Ac.In

²Chhatrapati Shahu Ji Maharaj University Kanpur, incubationmanager@csjmu.ac.in

***Corresponding author:**

shilpakaistha@csjmu.ac.in

Abstract

In the dynamic landscape of entrepreneurship and innovation, understanding stakeholders' awareness, perspectives, and expectations is pivotal for cultivating robust entrepreneurial ecosystems. This study aims to explore these aspects, focusing on stakeholders' familiarity with National Education Policy (NEP) 2020, Government of India initiatives, perceptions of technology business incubators, and interest in pursuing entrepreneurship as a career. Employing a descriptive case study approach, data was collected from diverse stakeholders across various demographics and viewpoints in Chhatrapati Shahu Ji Maharaj University Kanpur, a State Government Public University and tech business incubator "CSJM Innovation Foundation" of Uttar Pradesh through a survey questionnaire. The study focused on specific instances within entrepreneurship ecosystems, business incubators, to gather comprehensive insights through result tabulation and statistical analysis. The findings reveal a notable level of awareness among stakeholders regarding policy initiatives aimed at fostering entrepreneurship and innovation, particularly those delineated in the NEP 2020. Perceptions of technology business incubators underscore the significance of mentorship, networking, and access to resources for Start Up success. Moreover, stakeholders demonstrate a discernible interest in pursuing entrepreneurship as a career path, reflecting a burgeoning entrepreneurial mindset and acknowledgment of associated opportunities. The study underscores the importance of informed policy-making, supportive initiatives, and collaborative endeavours in nurturing dynamic entrepreneurial ecosystems and driving economic growth. Through a nuanced understanding of stakeholders' perspectives within specific entrepreneurial contexts, informed interventions can be designed to empower budding entrepreneurs and foster innovation for enduring societal impact.

Keywords: Innovation, Entrepreneurship, Business incubator, CSJM Innovation Foundation

Introduction

The National Education Policy (NEP) 2020 is a significant step in revamping the Indian education system to global standards by embracing innovations and technological advances (www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf) (1). The key aspects highlighting the importance of innovation and entrepreneurship in the NEP 2020 include emphasis on holistic and multidisciplinary education, fostering creativity and critical thinking (2,3). Innovation and entrepreneurship are crucial components for nurturing these skills, preparing students for real-world challenges (4). This approach fosters innovation by encouraging students to apply their knowledge in practical scenarios, preparing them for entrepreneurial challenges.

NEP 2020 introduces a flexible entry and exit system for higher education, allowing students to pursue their entrepreneurial ventures without compromising their educational journey (2,3). This approach encourages an entrepreneurial mindset, promoting a culture of risk-taking and adaptability. NEP 2020 emphasizes the integration of vocational education from an early age. This inclusion aims to equip students with practical skills, fostering an entrepreneurial spirit and increasing their employability of youth studying Higher Education Institutes (HEI) (5,6). The policy envisions the establishment of research and innovation hubs within higher education institutions to promote a culture of innovation. These hubs will facilitate collaboration between academia, industry, and the community. NEP 2020 recognizes the importance of incorporating entrepreneurship education at all levels (7). It recognizes the pivotal role of innovation and entrepreneurship in shaping the education landscape. Promoting collaboration between academia and industry is a key feature of NEP 2020. This collaboration enhances the relevance of education, facilitates technology transfer, and creates a symbiotic relationship that fosters innovation. The policy acknowledges the need to adopt global best practices in education, including those related to innovation and entrepreneurship. This helps Indian institutions stay competitive on the global stage and encourages a global mindset among students. By incorporating these elements, the NEP 2020 aims to create a dynamic education ecosystem in India that not only imparts knowledge but also nurtures innovation, creativity, and an entrepreneurial spirit among students (7). Policy framework to support encourage innovation, entrepreneurship and Start Up culture in HEI has been provided by the National Innovation and Start Up Policy (www.nisp.mic.gov.in) (8).

The policy supports the creation of incubation centres and start-up accelerators within educational institutions (9). These centres will provide a platform for students and faculty to develop and nurture innovative ideas, fostering a robust entrepreneurship ecosystem (10). Entrepreneurship and innovation are recognized as key drivers of economic growth, job creation, and societal development. Recognizing the significance of fostering entrepreneurial ecosystems, policymakers, educators, and stakeholders have increasingly focused on initiatives aimed at promoting entrepreneurship, innovation, and business incubation (3). A recent review indicates that little research has been carried out in the Indian context regarding a successful business incubator (11,12). This is particularly significant for Tier 2 cities where the focus of entrepreneurship development is still in early development stages.

Chhatrapati Shahu Ji Maharaj University Kanpur (CSJMU, NAAC accreditation A++), formerly Kanpur University established in 1966 is a multifaceted institution offering a diverse range of undergraduate, postgraduate, and doctoral programs (www.csjmu.ac.in). In addition, 635 affiliated colleges over 7 districts of Kanpur are under the gambit of this higher education institute (HEI). The university caters to a large student population, providing educational opportunities in fields such as arts, science, commerce, law, engineering, and management. CSJM University Kanpur thus has a challenge to maintain academic rigor, commitment to inclusivity, and emphasis on research and innovation. CSJM University Kanpur has successfully implemented all aspects of NEP 2020 for inculcating innovation and entrepreneurship ecosystem amongst all stakeholders in the past two years and been accredited with NAAC A++ grade. In order to foster entrepreneurship and innovation spirit, a technology business incubator named "CSJM Innovation Foundation", a Section 8 Company has also been registered on 8th May 2022 for its operations within the campus (www.innovation.csjmu.ac.in). Understanding stakeholders' perspectives is essential for designing effective policies, initiatives, and support mechanisms that cater to the diverse needs and aspirations of entrepreneurs and innovators (6, 13, 14). Therefore, it is essential to understand the current state of awareness and perceptions regarding business incubators to identify areas for improvement and enhance their impact on fostering entrepreneurship.

This descriptive case study endeavours to delve into the awareness, perceptions, and expectations surrounding entrepreneurship, innovation, and business incubators among stakeholders associated with CSJM University Kanpur.

Methodology

Data Collection: A structured survey research questionnaire was conducted to gather data on respondents' awareness and perceptions of business incubators for collecting quantitative data (14, 15). The survey consisted of multiple-choice and open-ended questions designed to assess respondents' understanding of business incubators, their expectations from them, and their perceptions of their role in supporting Start Ups through the use of google-forms. The survey was distributed online to a sample population of approximately 5000 individuals in CSJM University and affiliated colleges, targeting age groups from 18-21, 20-23, 24-30, 30-40, 40-50 and above 50 as well as educational qualifications ranging from Diploma, Bachelors, Masters, PhD offered in various departments across the University. Descriptive statistics were used to analyse the demographic variables. The reliability of the scale was tested using Cronbach's alpha. The questionnaire also had an open-ended question on what a student perceives as a motivational factor for one's entrepreneurial intention. The study followed ethical standards wherein respondents were requested to participate at their own volition.

Data Analysis: The data collected from the survey responses were analysed to determine the top choices made by respondents from the provided multiple options. This analysis involved tabulating the frequency of each option selected by respondents and calculating the percentage representation of the top choices. This provided a quantitative measure of

the prevalence of each choice among respondents. To ensure the validity of the data analysis, responses were reviewed for completeness and consistency. Any incomplete or inconsistent responses were excluded from the analysis to maintain the integrity of the findings. Data analysis was conducted using MS Excel, which facilitated the tabulation of frequencies and calculation of percentages. This software ensured accuracy and efficiency in the analysis process.

Results

Demographic Information: In our survey on awareness and perceptions of NEP 2020 and business incubators, 692 responses were obtained (10% of target population responded to the survey). We collected demographic information to better understand the characteristics of our respondents. This demographic information included age group, gender, and educational qualifications which have been depicted in Figure 1. Regarding age distribution, the respondents were diverse, spanning various age groups (Figure 1A). The majority of respondents (52.2%) fell within the 18-21 age range, representing individuals pursuing the Bachelor degree. A smaller percentage of respondents (28.7 %) were in the 20-23 age range, comprising Masters students. Additionally, there were some respondents aged 30-40 (11.8%) and above, representing faculty members and research scholars. In terms of gender distribution, our survey captured responses from both male and female participants (Figure 1B). While there was generally a balanced representation of genders, there may have been slight variations in the proportion of male (51.5%) and female respondents (47.8%). This diversity in gender representation reflects the inclusive nature of our survey and ensures a comprehensive understanding of perceptions across genders. Regarding educational qualifications, respondents had varying levels of educational attainment (Figure 1C). Majority of the perception studies were from students in Bachelor level of education (66.9%) followed by Masters (17.6%) and other PhD holders.

Awareness and Perception for Innovation and Entrepreneurship in NEP 2020

Amongst all the respondent, 48.5% were familiar, 26.5% were somewhat familiar, 20.6% claimed that they were not very familiar and 6.6% were not familiar at all, with the provisions for promoting innovation and entrepreneurship outlined in the National Education Policy (NEP) 2020. This indicates that nearly more than 90% of the respondents have some level of awareness of these provisions (Figure 2A). A significant percentage of respondents (overall 48.2%) and among those familiar with the NEP (41%), agreed on the importance of fostering entrepreneurship and start-up culture within educational institution underscores the recognition of entrepreneurship as a key driver of economic growth and innovation. This highlights the need for educational institutions to create an environment conducive to entrepreneurial activities and provide support for aspiring entrepreneurs (2).

The high percentage of respondents (overall 62%) who emphasized the importance of promoting a culture of innovation and creativity among students indicates a strong belief in the role of education in fostering innovation and preparing students for the challenges of the future economy. This aligns with the goals of the NEP to promote critical thinking, problem-solving, and creativity among students. The emphasis on practical skills and vocational training for employability (46.7% overall, 28% NEP familiar) reflects the recognition of the importance of hands-on learning and skill development in preparing students for the workforce. This highlights the need for educational reforms that prioritize experiential learning and align curriculum with industry needs (7).

The significant percentage of respondents (overall 45.3%) who emphasized enhancing research and development capabilities in academic institutions suggests a recognition of the importance of research and innovation in driving economic growth and competitiveness. This underscores the need for investment in research infrastructure and support for research activities within academic institutions (5). The emphasis on interdisciplinary learning and problem-solving skills (36.5% overall, 21% NEP familiar) reflects the recognition of the importance of holistic education in addressing complex challenges and fostering innovation. This highlights the need for educational reforms that promote interdisciplinary collaboration and project-based learning.

The relatively lower emphasis on strengthening industry-academia collaborations for skill enhancement (28.5% overall, 17% NEP familiar) suggests a potential area for improvement in aligning education with industry needs and fostering collaboration between academia and the private sector.

The emphasis on cultivating leadership and management skills among students (38.7% overall, 17% NEP familiar) reflects the recognition of the importance of leadership development in preparing students for future roles in the workforce and society. The recognition of the need to facilitate the transition from education to the workforce through internship and apprenticeship programs (27.7% overall) highlights the importance of practical work experience in bridging the gap between education and employment. Furthermore, the relatively lower emphasis on empowering marginalized communities through skill development initiatives (20.4% overall, 0% NEP familiar) suggests a potential area for further attention in ensuring inclusivity and equity in education and skill development programs.

Awareness and Perception for Role of a Technology Business Incubator

The results of the survey regarding awareness of technology-business incubators reveal a mixed level of understanding among respondents (Figure 3A). While a notable portion of respondents (32.8%) reported having practical knowledge about the purpose and workings of technology-business incubators, a slightly higher percentage (36.5%) indicated having only fundamental awareness. Additionally, a significant portion of respondents (24.8%) reported being fully unaware of technology-business incubators. These findings suggest both opportunities and challenges in promoting awareness and understanding of technology-business incubators. The highest percentage of respondents (66.4%) who identified providing access to mentorship and guidance from experienced entrepreneurs as the top concept of technology business incubators underscores the importance of mentorship in supporting the growth and development of Start Ups. Mentorship

provides invaluable insights, advice, and support to entrepreneurs, helping them navigate challenges and make informed decisions.

The results of the perception survey regarding the top concepts of technology business incubators provide valuable insights into the priorities and expectations of respondents regarding the support and services offered by these incubators. The findings highlight several key areas that are perceived as essential for the success of Start Ups and entrepreneurs that are presented below (Figure 3B).

The significant percentage of respondents (56.9%) who emphasized offering networking opportunities with potential investors, partners, and customers highlights the role of networking in facilitating access to resources, funding, and market opportunities. Building strong networks is crucial for Start Ups to establish partnerships, attract investments, and acquire customers (9). The emphasis on furnishing essential resources such as office space, equipment, and administrative support (57%) reflects the recognition of the importance of infrastructure and support services in enabling Start Ups to operate effectively and efficiently. Access to physical resources is essential for Start Ups to focus on their core activities and achieve their business goals.

The percentage of respondents (38%) who highlighted the importance of delivering tailored training programs and workshops to develop entrepreneurial skills underscores the need for education and skill development initiatives tailored to the needs of entrepreneurs. These programs help entrepreneurs acquire the knowledge, skills, and capabilities necessary to succeed in the competitive business environment (5). The emphasis on assisting with market research, validation, and product development (36.5%) reflects the importance of market validation and product-market fit in the success of Start Ups. Incubators play a crucial role in helping Start Ups conduct market research, validate their ideas, and refine their products to meet market demand (13). The recognition of the importance of legal, accounting, and other professional services (25.5%) highlights the need for Start Ups to access specialized expertise and support in areas such as legal compliance, financial management, and intellectual property protection. The emphasis on fostering a supportive community of like-minded entrepreneurs for collaboration and peer learning (26.3%) underscores the value of community and peer support in the entrepreneurial journey. A supportive community provides encouragement, inspiration, and opportunities for collaboration and knowledge sharing.

The recognition of the importance of providing access to industry-specific expertise and specialized knowledge (48%) reflects the need for Start Ups to access domain-specific knowledge and guidance to navigate industry challenges and opportunities effectively (22).

The percentage of respondents (26%) who emphasized offering exposure and visibility through marketing and promotional activities highlights the importance of building brand awareness and attracting customers and investors. Marketing and promotional activities help Start Ups showcase their products and services and attract attention in the market.

Start Up and Entrepreneurship as Career option: The survey results regarding respondents' considerations of start-ups as a career option reveal a spectrum of attitudes and intentions. Approximately one-third of respondents (36.5%) reported actively considering starting or joining a Start Up, while an equal percentage (36.5%) indicated that they have thought about it but are indecisive. A smaller proportion of respondents (18.2%) stated that they are not considering Start Ups or entrepreneurship as a career option, and a minority (9.5%) expressed uncertainty. The relatively high percentage of respondents actively considering start-ups as a career option reflects a growing interest in entrepreneurship. This suggests a positive outlook for the Start Up ecosystem, with a significant portion of the population showing a willingness to explore entrepreneurial ventures.

Discussion

The survey results provide valuable insights into respondents' perceptions of the provisions outlined in the National Education Policy (NEP), particularly regarding innovation, entrepreneurship, and skill development. The findings based on frequency distribution reveal varying degrees of agreement and emphasis on different aspects of the policy, reflecting the diverse perspectives and priorities of the respondents.

The effect of age, gender and degree background was studied on entrepreneurial intention amongst HEI students (16). A positive impact of entrepreneurship education for Start Up intention was found in interdisciplinary students. Moreover, individual behavioural characteristics were correlated to entrepreneurial intentions. Thus, responses were indicative of the young educators for whom reforms in NEP 2020 were being made as well those, that have most to benefit from innovation and entrepreneurship ecosystem being established in the University. While nearly half of the respondents are fully aware of the NEP 2020's provisions for innovation and entrepreneurship, there is room for improvement in increasing awareness among the remaining respondents. The high level of awareness among respondents suggests that the NEP 2020 initiatives for promoting innovation and entrepreneurship have successfully reached a significant portion of the target audience. This indicates the potential impact of these policy initiatives in raising awareness and stimulating interest in innovation and entrepreneurship among students, educators, and other stakeholders within the education system. Efforts to enhance awareness through targeted communication, education campaigns, and outreach initiatives could be beneficial. The level of awareness among respondents presents opportunities for engagement and collaboration among stakeholders, including policymakers, educators, industry leaders, and entrepreneurs. By engaging with aware individuals, stakeholders can leverage their knowledge and enthusiasm to further promote innovation and entrepreneurship initiatives (5). The result highlights the need for further research to explore factors influencing awareness of the NEP 2020's provisions for innovation and entrepreneurship. Understanding these factors can inform strategies to increase awareness and maximize the impact of policy initiatives as well as identify challenges in its implementation (17, 18).

The relatively high percentage of respondents with practical knowledge demonstrates that a portion of the surveyed population is well-informed about the purpose and workings of these incubators. This indicates that efforts to educate and engage individuals in understanding technology-business incubators have been somewhat successful.

However, the larger percentage of respondents with only fundamental awareness or no awareness at all, highlight areas for improvement. Enhancing educational initiatives, such as workshops, seminars, and informational campaigns, could help bridge the gap in knowledge among respondents. Additionally, targeted outreach efforts aimed at specific demographic groups, such as students and entrepreneurs, may be necessary to increase awareness and understanding among key stakeholders. Policymakers, educators, industry leaders, and entrepreneurs can leverage this awareness to foster meaningful partnerships, develop innovative educational programs, and create supportive ecosystems that nurture entrepreneurship and innovation (4).

The finding that a small percentage of faculty from the management sciences department were recognized authorities on the subject of technology-business incubators suggests a potential opportunity for collaboration and knowledge-sharing within academic institutions. Engaging faculty members with expertise in this area could facilitate the development of educational programs and initiatives aimed at promoting entrepreneurship and innovation among students (5).

Previous studies have highlighted the importance of business incubators in supporting Start Ups and fostering innovation (18,19). However, there is limited research on the awareness and perceptions of business incubators among potential beneficiaries. Some studies have found that lack of awareness and misconceptions about business incubators can hinder their effectiveness in supporting Start Ups (9, 21). Overall, the implications of these results bring forth the importance of ongoing efforts to promote awareness and understanding of the Government of India policies on innovation and entrepreneurship and the role of technology-business incubators (5, 10). By addressing gaps in knowledge and engaging key stakeholders, such as students, faculty, and entrepreneurs, policymakers and educators can further support the growth and success of technology-based Start Ups and foster a culture of innovation and entrepreneurship (22).

The perceptions outlined in the survey regarding the top concepts of technology business incubators provide valuable insights into the expectations and priorities of respondents regarding the support and services offered by these entities. Moving forward, policymakers, educators, and stakeholders in the entrepreneurship ecosystem should consider these perceptions when designing and implementing incubation programs to ensure they effectively meet the diverse needs of entrepreneurs and contribute to the overall growth and success of the Start Up ecosystem.

The percentage of respondents who have thought about Start Ups but are indecisive highlights the complexity of decision-making regarding entrepreneurial career paths. This ambivalence may stem from various factors such as perceived risks, lack of clarity about opportunities, or personal circumstances. Addressing these concerns through targeted support and guidance could help individuals make informed decisions about pursuing entrepreneurship. Entrepreneurial intention (EI) was studied in Indian setting at Aligarh Muslim University, Aligarh using Ajzens theory of planned behaviours, which indicates that India has less favourable youth willing to take up self-employment as a career option with many taking it up as a necessity (23). Sharma et al report that the Institutional based academic courses designed for entrepreneurship have a likely positive impact on the entrepreneurial intention of student (24). The findings address the importance of providing education, training, and support for aspiring entrepreneurs. A study analysing the role of entrepreneurial training on young individuals shows that youth readiness can be created through opportunity identification, motivation and resource impact (25, 26). Incubation Centers and programs that offer resources, mentorship, and networking opportunities can help individuals navigate the challenges of entrepreneurship and build the skills and confidence needed to pursue Start Up ventures (5,9).

In addition to highlighting the perceptions and expectations of stakeholders, the survey identifies areas for further improvement and intervention. For instance, while there is a relatively high level of awareness regarding policy initiatives and the role of business incubators, there are still gaps in knowledge and understanding that need to be addressed (27, 28). Policymakers and stakeholders in entrepreneurship development should take note of the significant interest in Start Ups as a career option. Policies and initiatives that support Start Up ecosystems, foster innovation, and create an enabling environment for entrepreneurship can further stimulate this interest and contribute to economic growth and job creation. Efforts to enhance awareness through targeted communication and educational campaigns could help bridge these gaps and ensure that stakeholders are well-informed about available resources and support. By working together, these stakeholders can leverage their respective expertise and resources to create a supportive environment that nurtures innovation, fosters entrepreneurship, and drives economic growth (28, 29). Furthermore, the survey emphasizes the importance of fostering collaboration and partnerships among stakeholders in the entrepreneurship ecosystem, including policymakers, educators, industry leaders, and entrepreneurs.

Conclusions

The results of the survey conducted on awareness, perceptions, and expectations regarding business incubators, entrepreneurship, and innovation initiatives provide valuable insights into the current landscape and future directions of entrepreneurship development, particularly in Tier II city State Government University. Across various dimensions, from awareness of policy provisions to perceptions of incubator services, the findings offer a nuanced understanding of stakeholders' perspectives and priorities. One of the key takeaways from the survey is the notable level of awareness among respondents regarding policy initiatives aimed at promoting innovation, entrepreneurship, and skill development, such as those outlined in the National Education Policy (NEP) 2020. The substantial percentage of respondents familiar with these provisions indicates a growing recognition of the importance of fostering an entrepreneurial culture and equipping individuals with the necessary skills and resources to succeed in a rapidly evolving economic landscape.

Furthermore, the survey sheds light on respondents' perceptions of the role and significance of technology business incubators in supporting Start Ups and entrepreneurs. The emphasis on providing access to mentorship and guidance, networking opportunities, and essential resources underscores the multifaceted nature of incubation support. These findings highlight the need for incubators to adopt a holistic approach that addresses the diverse needs and challenges faced by Start Ups at different stages of their development.

The survey reveals a strong interest among respondents in pursuing entrepreneurship as a career option, with a significant percentage actively considering starting or joining a Start Up. This trend reflects a growing entrepreneurial mindset and a recognition of the opportunities and benefits associated with entrepreneurship. However, it also underscores the importance of providing adequate support, training, and resources to empower aspiring entrepreneurs and increase their chances of success.

In conclusion, the findings of the survey provide valuable insights into the perceptions, expectations, and priorities of stakeholders regarding entrepreneurship development and innovation initiatives. By leveraging these insights and addressing the identified gaps and challenges, policymakers and stakeholders can take meaningful steps to foster vibrant entrepreneurial ecosystems that empower individuals, drive economic growth, and create lasting social impact. Through informed policies, supportive initiatives, and collaborative efforts, a brighter future where entrepreneurship thrives and innovation flourishes can be built.

Acknowledgement

The authors acknowledge CSJM University Kanpur administration for support.

Funding

The authors received no financial support for the research, authorship and/or publication of this article. The authors received no specific funding for this work. Authors acknowledge financial support from Startin UP to CSJM University Kanpur.

Conflict of Interest

Authors are associated with the Tech business incubator CSJM Innovation Foundation promoted by CSJM University Kanpur.

Data Availability

The data that support the findings of this study are available on request from the corresponding author.

Abbreviations

CSJMU	: Chhatrapati Shahu Ji Maharaj University Kanpur
HEI	: Higher Education Institutes
NEP	: National Education Policy
NISP	: National Innovation and Start Up Policy
UGC	: University Grants Commission
StartIn UP	: Startup Policy of the Government of Uttar Pradesh

References

1. Ministry of Education, Government of India. (2020). National Education Policy 2020. Retrieved from https://www.moe.gov.in/NEP_Final_English_0.pdf (education.gov.in)
2. Aithal PS, and Aithal S. Analysis of the Indian National Education Policy 2020 towards achieving its objectives. *Int. J. Manag. Technol. Soc. Sci.* 2020, 5(2) (2020)19, 10.47992/ijmts.2581.6012.0102
3. Chatterjee S. National Education Policy (NEP) 2020: A critical review. *Int. J. Soc. Sci.* 2021. 11(2), 414-425.
4. Adapa S, Yarram SR. Entrepreneurial Ecosystem in India. In: Adapa, S., McKeown, T., Lazaris, M., Jurado, T. (Eds.), *Small and Medium-sized Enterprises, and Business Uncertainty*. Palgrave Studies in Global Entrepreneurship. Palgrave Macmillan, Singapore. 2023, https://doi.org/10.1007/978-981-99-4844-4_7
5. Kandakatla R, Aluvalu R, Devireddy S, Kulkarni N, Joshi G. Role of Indian Higher Education Institutions towards Aatmanirbhar India: Government Policies and Initiatives to promote Entrepreneurship and Innovation, 2021 World Engineering Education Forum/Global Engineering Deans Council (WEEF/GEDC), Madrid, Spain, 2021, pp. 8-14, doi: 10.1109/WEEF/GEDC53299.2021.9657261.
6. Kapil Y, Saxena N, Mohan P. Factors Promoting the Entrepreneurship Ecosystem in HEIs of India and its Impact on Millennials' Education. *Int. J. Prof. Bus. Rev.* 2023 8(4), e01795. <https://doi.org/10.26668/businessreview/2023.v8i4.1795>
7. Singh KJ, Gunasekaran V. Entrepreneurship and employment skills: role of National Education Policy (NEP) 2020. *Int. J. of Adv. Res.* 2023. 11 (Jul). 708-711] (ISSN 2320-5407).
8. Ministry of Education, Government of India. 2020, National Start Up Policy. Retrieved from www.nisp.mic.gov.in
9. Vardhan J. Mahato M. Business Incubation Centres in Universities and Their Role in Developing Entrepreneurial Ecosystem. *J. Entrep. Innov. Emerg. Econ.* 2022. 8(1), 143-157. <https://doi.org/10.1177/23939575211034056>
10. Acharya SR, Chandra R. Role of Technology Business Incubator in enhancing Entrepreneurship ecosystem. In *Applying Business Intelligence and Innovation to Entrepreneurship*. 2024. E ISBN13: 9798369318478 DOI: 10.4018/979-8-3693-1846-1.ch002

11. Pratibha S. Role of Business incubators on Start Up Success: Indian Perspective. J. Emerg. Tech. Inn. Res. 2019. 6(6):1-4. ISSN-2349-5162
12. Jain, M, Chawla C. Role and Importance of Technical Business Incubators in India: Literature Review. J. IPEM. 2024. 18:1-13
13. Al-Mubarak HM, Busler M. Challenges and opportunities of innovation and incubators as a tool for knowledge-based economy. J. Innov. Entrep. 2024. 6, 15. <https://doi.org/10.1186/s13731-017-0075-y>
14. Basu R. Entrepreneurship education in India: A critical assessment and a proposed framework. Technology and Innovation Management Review, 2014. 4(8), 5–10. <https://doi.org/10.22215/time/817>
15. Bryman A. Qualitative data analysis. London, UK: SAGE Publications. 2007. 728p
16. Paray Z, Kumar S. Does entrepreneurship education influence entrepreneurial intention among students in HEI's?: The role of age, gender and degree background. J. Int. Educ. Bus. 2002. 10.1108/JIEB-02-2019-0009. Review, 7 (10), 5–15. <https://doi.org/10.22215/timreview/12>
17. Kaur K. Challenges in Implementation of NEP 2020. Int. J. of Indian Psychol. 2024. 12(1): 1735-1737. DOI: 10.25215/1201.161
18. Das R, Mohanty K. Nexus Between New Education Policy (NEP) 2020 and Business Education. 2024. Available at SSRN: <https://ssrn.com/abstract=4742574>
19. Grimaldi R, Kenney M, Siegel DS, Wright M. 30 years after Bayh-Dole: Reassessing academic entrepreneurship. Res. Policy. 2011. 40(8), 1045-1057.
20. Hackett SM, Dilts DM. A systematic review of business incubation research. J. Technol. Transfer. 2004. 29(1), 55-82. <https://doi.org/10.1023/b:jott.0000011181.11952.0f>
21. Lukosiute, K., Jensen, S., and Tanev, S. (2019). Is Joining a Business Incubator or Accelerator Always a Good Thing? Technology Innovation Management Administration, 35(1), 73-89.
22. Basant, R. (2021). Black Box: Innovation and Public Policy in India. *IIMA Business Series*. enguin Books India Pvt, Ltd. ISBN: 9780670090822
23. Arafat, M., Saleem, I., Dwivedi, A. (2019). Understanding entrepreneurial intention among Indian youth aspiring for self-employment. International Journal of Knowledge and Learning. 13. 10.1504/IJKL.2020.10032175.
24. Sharma, S., Khandelwal, N. K., and Mehta, A. (2024). An Empirical Study of Factors Contributing to Entrepreneurial Intention Among Students of Higher Education Institutes. J. Entrep. Innov. Emerg. Econ. 11(1), 88-101. <https://doi.org/10.1177/23939575241252033> (Original work published 2025)
25. Olugbola, S. (2017). Exploring entrepreneurial readiness of youth and start-up success components: Entrepreneurship training as a moderator. *Journal of Innovation and Knowledge*. 2. 10.1016/j.jik.2016.12.004.
26. Valecha, B. Role of Institutions in Implementing NE-2020 In Higher Educations. Abhinav National Monthly Referred Journal of Research in Commerce and Management. 2023. 2(2):1-10 e ISSN 2277-1166
27. Inamdar S, Afroze S. Exploring the Opportunities and Confronting the Challenges Within Business Incubation: Opportunities and Challenges. In L. Indiran and R. Yanamandra (Eds.), *Promoting Entrepreneurship and Innovation Through Business Incubation*. 2025. pp. 29-54. IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-4302-9.ch002>
28. Gupta S, Sunder DL. Tall tales or success stories? A scrutiny of the business incubation policy and landscape in India. J. Public Aff. 2025. 25:1/e70014. <https://doi.org/10.1002/pa.70014>
29. Dhiman V, Arora M. Exploring the Linkage between Business Incubation and Entrepreneurship: Understanding Trends, Themes and Future Research Agenda. LBS J. Manag. and Res. 2024. 10.1108/LBSJMR-06-2023-0021

Figure Legends

Figure 1. Demographics of sample population in urban State Government Chhatrapati Shahu Ji Maharaj University Kanpur and affiliate colleges based on:

- A. Age
- B. Gender
- C. Educational Qualification

Figure 2.

- A. Awareness with the provisions for promoting innovation and entrepreneurship outlined in the National Education Policy (NEP) 2020
- B. Perception regarding the role of Innovation, Entrepreneurship, and Skill Development (IESD) as outlined in the National Education Policy (NEP) 2020 among Familiar and Overall Cohort

Figure 3

- A. Awareness regarding the concept of a technology-business incubator
- B. Consideration of Start Up or Entrepreneurship as a career option
- C. Perception regarding the role of a technology business incubator in supporting Start Ups

Figure 4. Percentage respondents regarding consideration of Start Up or Entrepreneurship as a career option

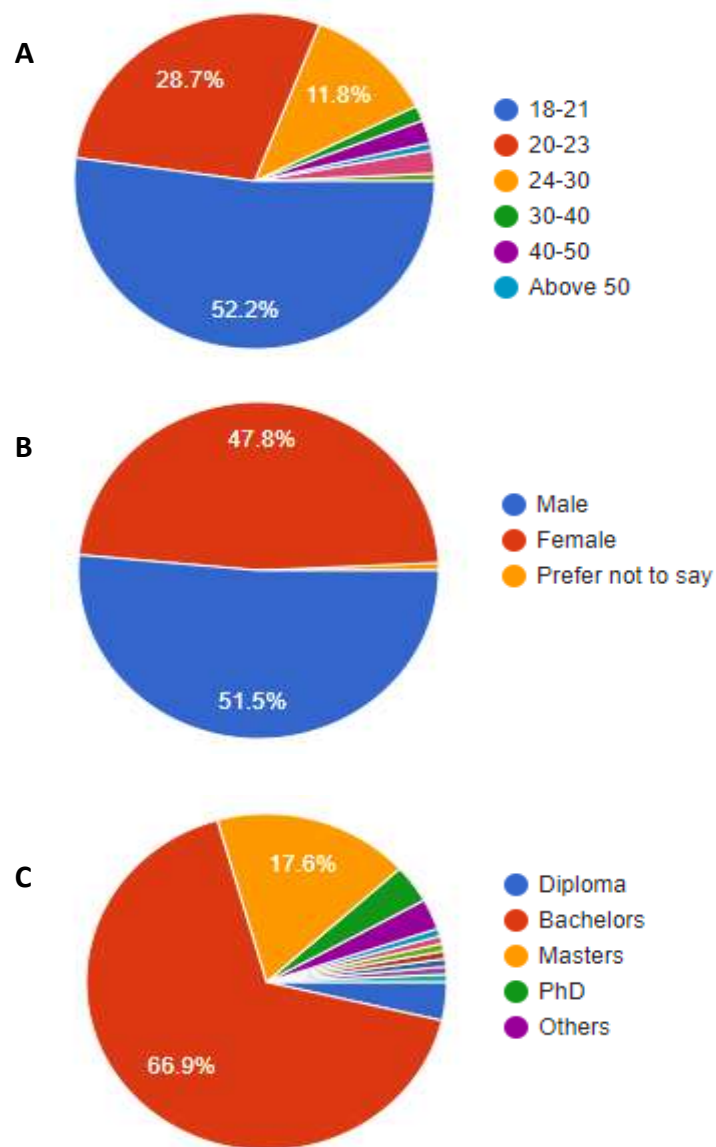
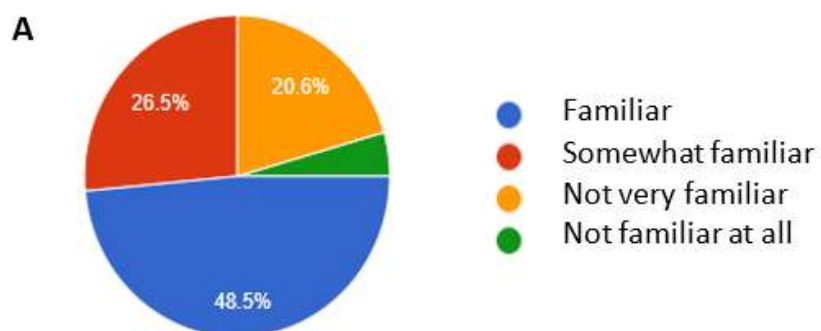


Figure 1. Demographics of sample population in urban State Government Chhatrapati Shahu Ji Maharaj University Kanpur and affiliate colleges based on:

- A. Age
- B. Gender
- C. Educational Qualification



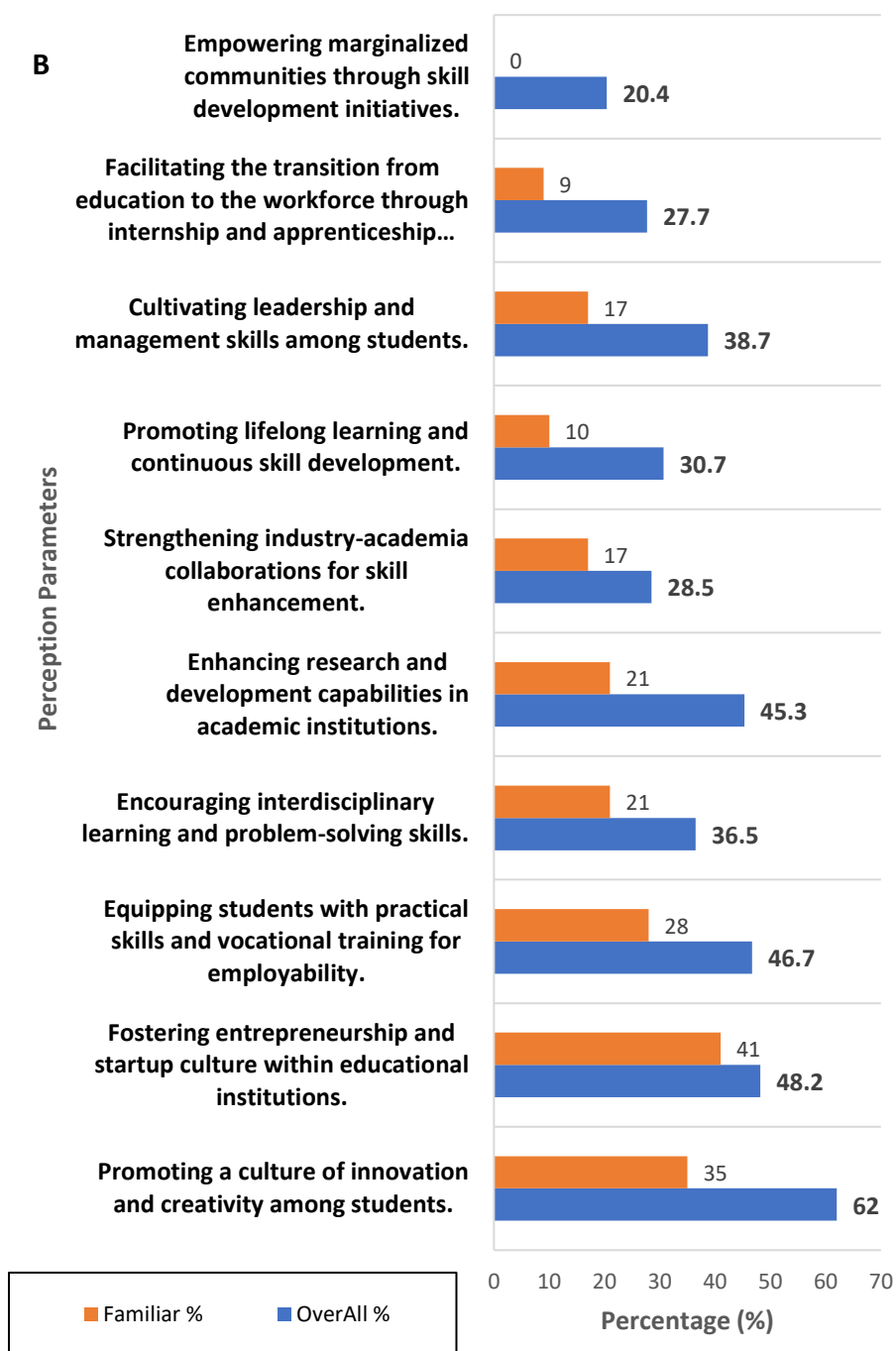
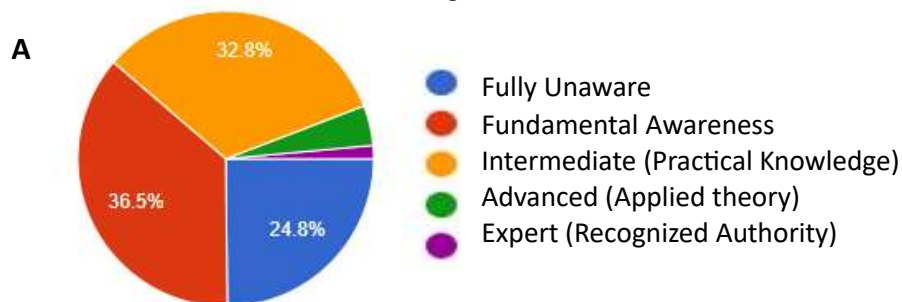


Figure 2. A. Awareness with the provisions for promoting innovation and entrepreneurship outlined in the National Education Policy (NEP) 2020

B. Perception regarding the role of Innovation, Entrepreneurship, and Skill Development (IESD) as outlined in the National Education Policy (NEP) 2020 among Familiar and Overall Cohort



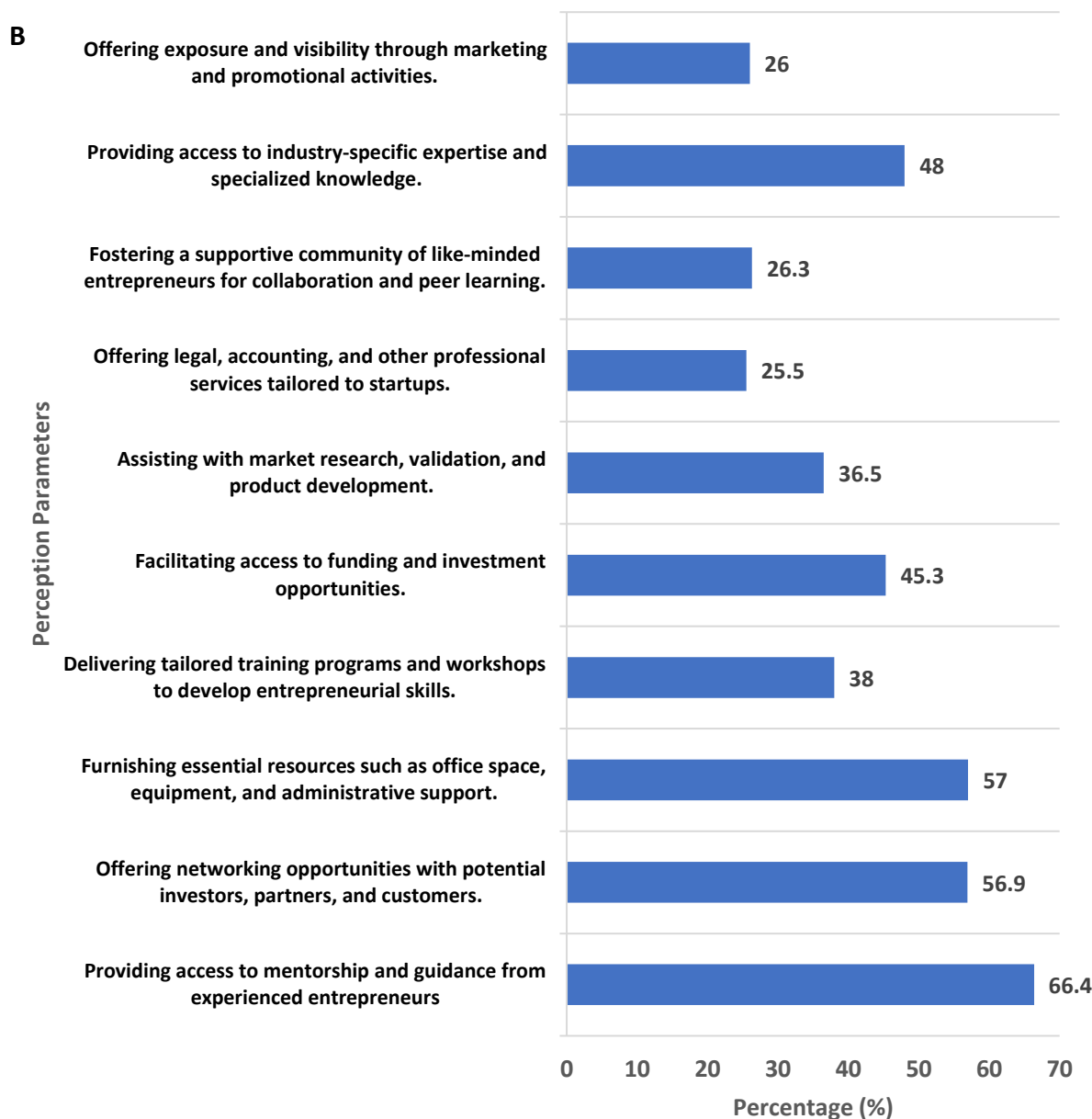


Figure 3 A. Awareness regarding the concept of a technology-business incubator
B. Consideration of Start Up or Entrepreneurship as a career option
C. Perception regarding the role of a technology business incubator in supporting Start Ups

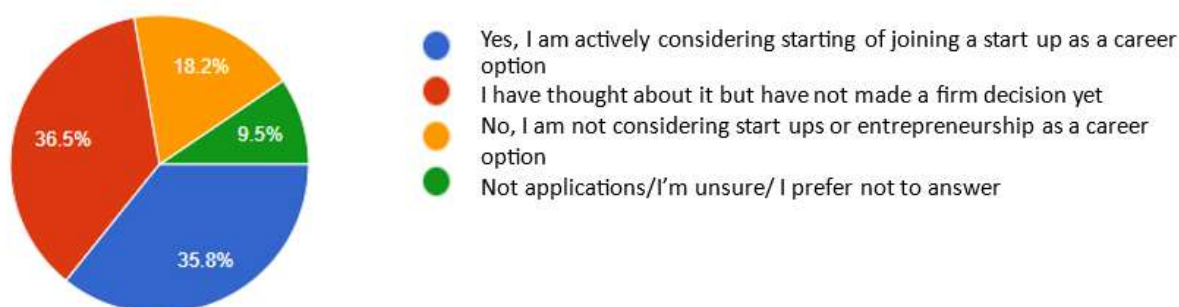


Figure 4. Percentage respondents regarding consideration of Start Up or Entrepreneurship as a career option