

The Role of Innovation and Entrepreneurship Education in Promoting the Growth of Students in Higher Vocational Colleges

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Abstract

The far and wide utilization of enormous information is supported by data innovation, which likewise prompts continuous changes in school and college educational programs. The subject of how to assist undergrads with bettering comprehend innovation and entrepreneurship while likewise assisting them with acclimating to the moving economic situations has acquired consideration. Look at the condition of innovation and entrepreneurship instruction for undergrads today utilizing huge information investigation. This paper looks at the expert morals, work hunting thought, innovation and practice capacity development, imaginative reasoning, enterprising mental bearing skill, creative and exhaustive nature of entrepreneurship, and different parts of undergrads' entrepreneurship. By inspecting the condition of innovation and entrepreneurship schooling for undergrads today, we can recognize the positive impacting factors and attempt to reinforce and improve them. This study proposes change ideas and countermeasures considering the ominous impact components. To make a bunch of ceaselessly further developing innovation and entrepreneurship curricular frameworks, the public authority, schools, instructors, and students met up to sum up the innovation and entrepreneurship training model. In this methodology, an imaginative and pioneering ability improvement program that is receptive to the requirements of the cutting-edge world might be laid out, and the sound development of talented people can be energized.

Keywords: Innovation, Entrepreneurship, Vocational Colleges, Construction, Students Ecosystem, Impact.

1. INTRODUCTION

The central objectives of innovation and entrepreneurship (IAE) training in higher vocational schooling are to encourage the creative soul and capacities of undergrads, support the foundation of an imaginative country, and assume a critical part in progressing financial turn of events. The Socialist Faction of China's nineteenth Public Congress report clarifies what it needs, effectively upholds IAE in its endeavors to advance business, and helps ongoing school graduates in tracking down work and beginning their own organizations. Higher vocational education has an inherent benefit of growing IAE education since it is more directly tied to industry and the market than general education.

A ton of scholastics in the nation began to zero in on IAE training. With an end goal to accomplish the organized development of vocational instruction and IAE Training, Bo et al. researched the way of profound joining between proficient instruction and IAE training. Dongmei researched the IAE school system of higher vocational school (HVS) through three perspectives:

modularization, pecking order, and full inclusion involving Jilin Designing Vocational School for instance. IAE instruction for HVS is a deliberate task that is upheld comprehensively. It requires member participation as well as complementary collaboration, and the coupling connection between high level plan and execution merits further consideration.

The standards of uprightness and orderliness in the domain of biology have been applied to teaching method with the idea of China's schooling change, dynamically building the hypothesis of instructive environment and introducing the IAE training ecosystem. IAE Training puts a ton of significance on the improvement of the IAE instruction ecosystem of HVS, albeit the group of scholarly exploration on this point is as yet inadequate. Along these lines, the purported instructive change is still in its early stages. Shunbo and Wei examined how to build the IAE ecosystem utilizing five framework parts as indicated by type credits.

1.1. Problems IAE education

Building the biological exemplification of IAE schooling in colleges and colleges is a difficult significant undertaking with various issues. The IAE schooling climate of HVS in China has come to fruition because of late endeavors, yet impediments actually hold up traffic of its proceeded with development. Sha reasoned that we ought to zero in more on IAE Training subsequent to breaking down the significance and recent concerns with big business school coordinated effort in IAE ability preparing through the examination of ability preparing ways. As indicated by Jian Zhong, the current IAE instruction model at HVS is obsolete, there aren't an adequate number of educators, and the framework isn't flawless; accordingly, it should be additionally gotten to the next level.

Moreover, as per Guofeng, the ongoing IAE school system has a youthful idea, a shoddy administration framework, a disordered inner design, and inadequate financing. To upgrade students' great work and understand the top notch advancement of the school, Yang and Wu further improved and enhanced the IAE schooling system from the parts of liability execution, educational plan framework, showing staff, social climate, and foundation of training stage and strategy ensure.

Before, the understudy division, schools, and school undertaking participation units generally worked together on the showing system while involving the standard training strategies in colleges and colleges. Undergrads who need to seek after entrepreneurship presently have school support. People applied on the web, school venture work fairs were held, and students collected their own cash. Most of students leaned toward work, while simply a little level of students established their own organizations.

1.2. Available Resources

The ecosystem of training is comprised of vertical component coordination and flat subject coordination. It relies upon the help of the public authority and society as asset seepage and strategy. Students actually miss the mark on assets and valuable experience for the general public today. Schooling serves for the most part as a direction. Through guidance and involved preparing, colleges, foundations, teachers, and students increment the creation of achievements and lay out a two-way advancement improvement design. Four viewpoints are utilized to dissect the framework according to the viewpoint of framework hypothesis: limit, state, power, and movement.

1.3. Innovation in the IAE Education Ecosystem of HVS

The training ecosystem is a course of deliberate development that began as a straightforward framework and developed into a perplexing framework. Subject coordination is fundamental for this interaction, requiring complex joint effort between the public authority, instructive establishments, and organizations, among different subjects. Notwithstanding project docking, asset improvement, educator sharing, and different methods, this calls for help from general society, strategy, subsidizing, interest balance, and different variables. Figure 1 portrays the organization of the IAE schooling subject subsystem.

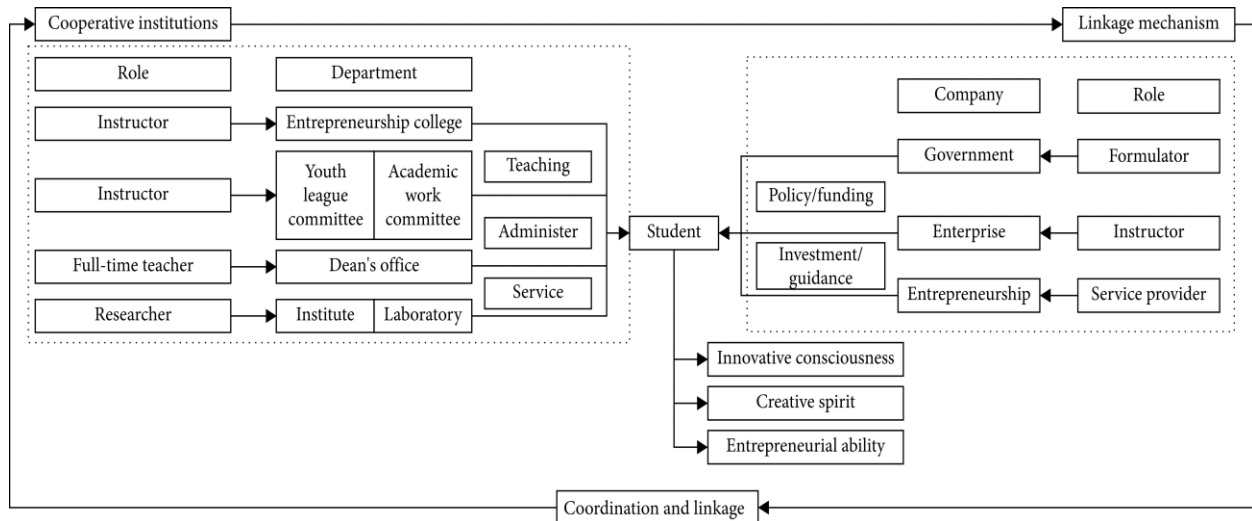


Figure 1: Main subsystem of innovation and entrepreneurship education.

The entrepreneurship school, youth association advisory group, scholastic work board of trustees, scholarly issues office, research establishment, lab, and different divisions, which, thusly, do the jobs of IAE instruction, educating, direction, and logical exploration, are among the colleges and colleges that act as the central matter of direct association and execution. As the maker, advertiser, and lawmaker of IAE training, the public authority lays out the objectives and method for execution in Figure 1 through high level plan. The IAE training improvement technique should be modified to the one of a kind requirements of the establishment and to Cather's hypothetical and practice courses to give a positive climate to the improvement of IAE in colleges and colleges. Organizations fills in as the transporter and foundation of IAE training, giving understudies temporary jobs and certifiable experience, supporting entrepreneurship drives, and establishing positive outside conditions for IAE schooling.

The reconciliation of all framework parts is expected to accomplish the preparation objective, including the assurance of the preparation level and content, the change and supplementation of the ability preparing plan, the improvement of strategy supply, the upgrade of asset beneficial interaction, and the foundation of an assurance arrangement of outer subject coordination and inside division linkage. Figure 2 portrays the IAE instruction ability preparing structure.

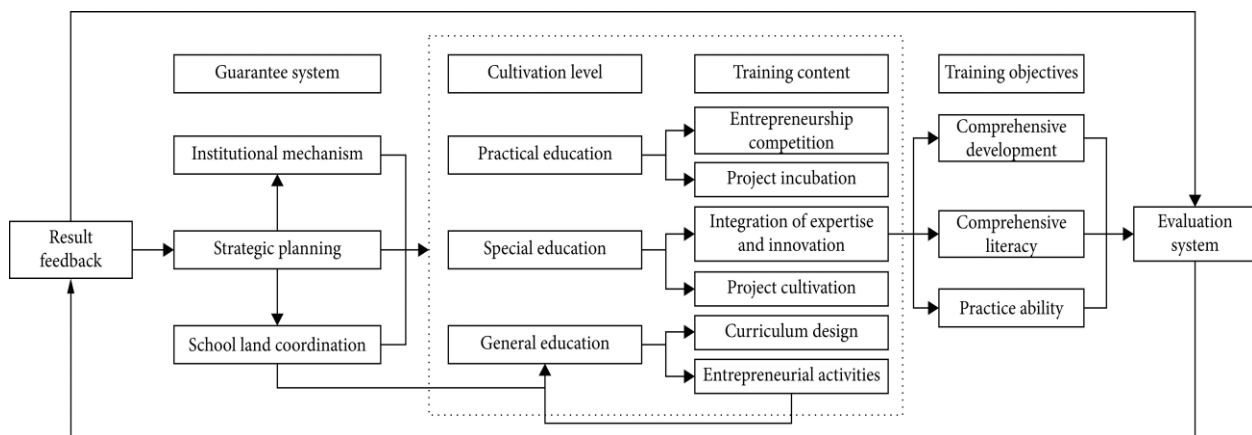


Figure 2: To carry out broad instruction, trademark training, and pragmatic training, decide the preparation level and refine different preparation contents, and accomplish the preparation objective of advancing vocational capacity, far reaching quality, and all-around improvement of higher vocational students, the whole framework supports the public authority, colleges and colleges, undertakings, society, and scholastic circles to shape school nearby coordination. It additionally energizes the public authority and undertakings to partake in the colleges and colleges' schooling stage. At long last, the framework gives input on the outcomes through an assessment framework.

2. LITERATURE REVIEW

Huo (2015), This study focuses on the unique requirements that higher vocational colleges have when it comes to teaching entrepreneurship. In order to properly instruct and prepare aspiring entrepreneurs, educators must possess the fundamental knowledge, abilities, and attitudes outlined in Huo's model of teacher competence. The concept consists of five basic domains: self-development, professional ethics, practical experience, educational skills, and entrepreneurial expertise. For institutions looking to hire and train qualified instructors for their entrepreneurship programmes, this framework offers helpful advice.

Zhou & Wu (2018), This study highlights how crucial it is to get college students ready for the quickly evolving global economy, where entrepreneurship and creativity are essential for success. They contend that current educational methods fall short and advocate for a more all-encompassing strategy that combines classroom instruction with real-world application. The study suggests a number of tactics to improve college students' capacity for innovation and entrepreneurship, such as encouraging a climate of creativity and risk-taking, offering chances for experiential learning, and putting students in touch with mentors and successful businesspeople.

Huang, J.Y. (2019), examined methods for increasing IE education for colleges' capacity. The study determined a number of crucial steps that should be taken to improve the capacity of IE education, including faculty development, curriculum reform, and cooperation with business partners. Huang underlined the necessity for universities to provide an all-encompassing IE curriculum that blends theoretical understanding with real-world application. He also emphasised how crucial it is to give faculty members opportunities for professional development so they may acquire the abilities and know-how needed to instruct IE courses. In addition, Huang promoted tighter cooperation between academic institutions and business associates to establish student internship and mentorship programmes.

Yang, Y. & Shang, Y.T. (2020), examined, in the direction of high-quality development, the importance, direction, and development route of the construction of the IE education system in higher vocational colleges. According to the authors, IE education is critical for developing students' entrepreneurial and innovation skills, which are necessary for success in the contemporary economy. A framework for creating a top-notch IE education programme in vocational colleges was put forth by them. It calls for creating a mission and vision statement, creating a thorough curriculum, offering opportunities for hands-on training, and encouraging an atmosphere that is conducive to entrepreneurship and innovation.

Li, J. (2019), investigated how innovation and entrepreneurship (IE) education is being implemented in Chongqing, China's vocational colleges. The curriculum design, instructional strategies, and student learning outcomes were the main subjects of the study. Li outlined a number of obstacles that IE education in technical colleges must overcome, including a dearth of skilled teachers, constrained funding, and insufficient opportunities for students to gain real-world experience. Additionally, the report offered suggestions for raising the standard of IE instruction at vocational colleges, including as creating a more thorough curriculum, offering more opportunities for hands-on training, and hiring and preparing skilled teachers.

3. RESEARCH METHODOLOGY

The objective of innovation and entrepreneurship training in colleges and colleges is to foster students' soul of entrepreneurship and innovation cognizance while likewise furnishing them with a down to earth schooling that will assist them with working on by and by later on. Given the speed at which internet business is developing and data innovation is refreshing, market-shrewd undergrads will undeniably zero in on developing business sectors and give close consideration to showcase open doors. Undergrads today are wildly free, determined by the craving for personalisation, valiant even with challenge and rivalry, and more prepared to deal with the business type of significant worth chain revamping and modern chain reconstruction achieved by large information. Enormous information offers a proving ground for undergrads' turn of events.

4. DATA ANALYSIS AND RESULT

Students in school don't think imaginatively or innovatively enough. The review results demonstrates that there are tremendous contrasts in understudies' impression of innovation and entrepreneurship training. Most male undergrads feel that innovation and entrepreneurship are approaches to working that coordinate reasoning and doing to make the most of market valuable open doors. Most females trust it's to incorporate their own assets and make another course to errands connected with endurance.

Table 1: The way that courses on innovation and entrepreneurship are conceptualised by college students.

Options	Frequency	
	Male	Female
A group begins a totally different business all alone	11.72%	10.13%
A way of thinking, reasoning, and acting	36.01%	24.67%
Innovation is the groundwork of entrepreneurship, entrepreneurship is the epitome of innovation	23.85%	26.79%
Begin a business with your own assets	28.31%	38.39%

The mental dissemination of entrepreneurship and innovation schooling among undergrads is displayed in the table, broken somewhere near orientation. The choices offered represent various viewpoints on entrepreneurship. 36.01% of male students link entrepreneurship to a specific style of thinking, reasoning, and behaviour, whereas 11.72% of them see the value of a group launching a new company on their own. Furthermore, compared to 28.31% of male students who emphasise beginning a firm with one's own resources, 23.85% of male students believe that invention is the cornerstone of entrepreneurship. However, female students had somewhat different preferences: 24.67% believe that entrepreneurship is associated with a particular mindset, and 10.13% embrace the idea of a team beginning a new firm independently. Remarkably, compared to their male peers, a larger proportion of female students (38.39%) think that launching a business on their own is a good idea. Generally speaking, the table shows how undergrads' mental viewpoints on innovation and entrepreneurship instruction vary reliant upon their orientation.

Table 2: Table showing the distribution of genders in entrepreneurship and innovation.

X\Y	money	contacts	market	policy	profile	other
Male	72.83%	78.11%	76.95%	56.25%	52.61%	19.41%
Female	76.41%	79.69%	81.13%	58.68%	63.43%	31.85%

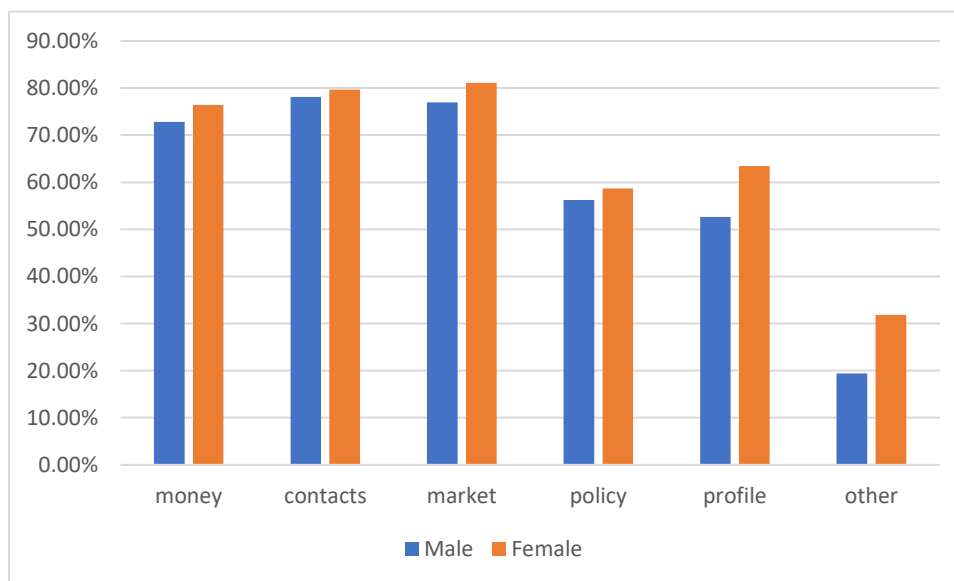


Figure 3: Table showing the distribution of genders in entrepreneurship and innovation.

With regard to innovation and entrepreneurship, the table shows a gender distribution analysis across a number of factors, which are indicated by the columns "money," "contacts," "market," "policy," "profile," and "other." The percentages in each cell show how many men and women participate in these areas. It's interesting to note that women outnumber men in every category; the biggest differences are found in "market," "policy," and "profile." The percentage of females in financial aspects is 76.41%; in networking or connections, it is 79.69%; in market-related activities, it is 81.13%; in policy involvement, it is 58.68%; in profile-building activities, it is 63.43%; and in other undefined aspects, it is 31.85%. These results imply that, in the environment under study, women are marginally more engaged in entrepreneurship and innovation on a number of fronts, though the differences between the sexes are not very great. The information emphasises how crucial it is to continue tackling gender gaps in entrepreneurship and encouraging diversity in many areas of the corporate world.

Table 3: Male and female student distribution across various course types.

X\Y	University Innovation and Entrepreneurship courses	Their own part-time	Entrepreneur lectures and videos	Innovative and entrepreneurial community activities	other
Male	19.40%	46.13%	17.83%	11.36%	5.24%
Female	18.10	52.56%	12.70%	11.57%	5.09%

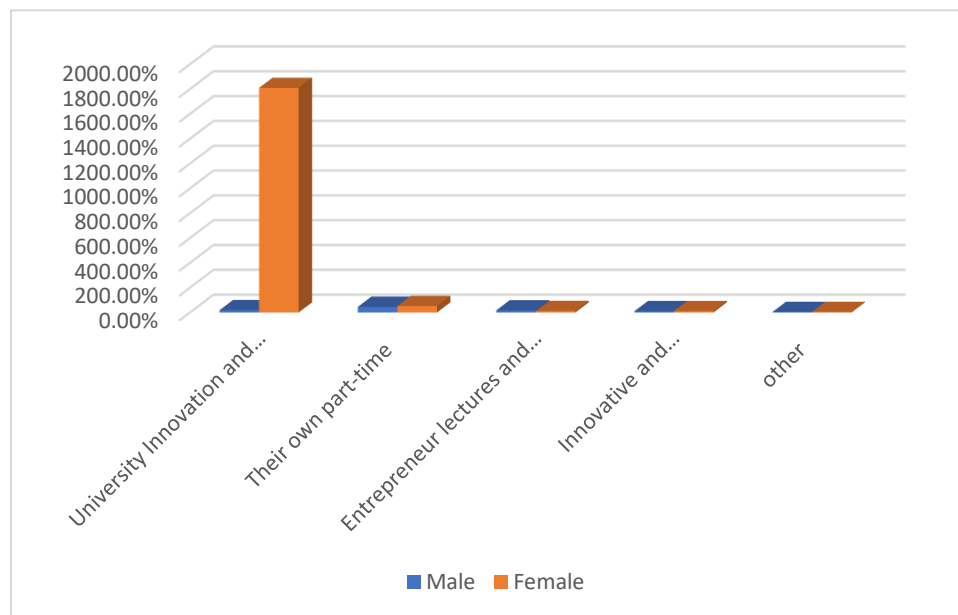


Figure 4: Male and female student distribution across various course types.

With an emphasis on College Innovation and Entrepreneurship courses, their own part-time drives, Business person talks and recordings, support in imaginative and enterprising local area exercises, and other vague classes, Table 3 shows the circulation of male and female students across various course types at the college. According to the data, out of all male students, 19.40% are enrolled in University Innovation and Entrepreneurship courses, 46.13% are working on their own side projects, 17.83% watch lectures and videos about entrepreneurship, 11.36% are active in innovative and entrepreneurial community projects, and 5.24% are classified as "other." Female students, on the other hand, show somewhat different preferences: 18.10% take University Innovation and Entrepreneurship courses; 52.56% work part-time; 12.70% watch lectures and videos on entrepreneurship; 11.57% participate in innovative and entrepreneurial community activities; and 5.09% fall into the "other" category. The table sheds light on the gender distribution of different academic and entrepreneurial endeavours, emphasising subtle variations in the extracurricular activities and course selections of male and female students.

Table 4: Distribution of course materials on innovation and entrepreneurship.

XW	marketing	Financial and tax	Personalized coaching	Human communication skills	Entrepreneurial Case Analysis	Entrepreneurial opportunities	other
Male/a freshman	78.16%	34.57%	45.47%	65.43%	52.71%	50.89%	20.01%
Male/a sophomore	56.70%	52.26%	68.68%	67.18%	50.76%	53.71%	16.40%
Male/junior	63.90%	69.09%	68.06%	77.30%	42.25%	32.97%	14.41%
Male/senior	89.31%	57.16%	71.45%	82.13%	67.85%	64.27%	28.56%
Female/a freshman	63.02%	58.72%	50.01%	67.41%	60.85%	63.06%	13.03%
Female/sophomore	69.21%	53.87%	63.73%	71.41%	59.36%	63.72%	24.15%
Female/junior	67.54%	54.72%	71.77%	76.06%	64.98%	67.50%	27.37%
Female/senior	86.38%	54.57%	54.57%	90.90%	59.10%	68.15%	18.20%

The percentages of students' participation or performance in an entrepreneurial education programme across several categories, broken down by gender and academic year, are displayed in the table. XW (an unidentified factor), marketing, tax and financial expertise, individualised coaching, interpersonal communication abilities, entrepreneurial case analysis, entrepreneurial prospects, and a "other" category are among the categories. Male and female students at various academic levels (freshman, sophomore, junior, and senior) are further subdivided into the data. When the data is analysed, some trends show up. When compared to other male cohorts, male seniors, for instance, typically have larger percentages in most categories, suggesting that over their academic careers, they may develop or specialise in their entrepreneurial talents. Senior female students typically do well in subjects like marketing and interpersonal communication. In order to improve students' entrepreneurial education experience, educators and programme developers can benefit from knowing the strengths and weaknesses of students across genders and academic levels through the percentages in each category. This information can help them customise their teaching strategies and support networks.

Table 5: Obstacles to innovation and the teaching of entrepreneurship.

X\Y	External objective environmental problems	High risk, low success rate	Insufficient start-up capital	Lack of experience, lack of ability
Male/a freshman	14.53%	27.28%	21.80%	36.38%
Male/a sophomore	17.89%	40.32%	16.40%	25.35%
Male/junior	12.35%	35.06%	16.50%	36.10%
Male/senior	21.41%	42.84%	10.70%	24%
Female/a freshman	13.06%	28.28%	21.72%	36.98%

Female/sophomore	10.97%	34.09%	17.60%	37.37%
Female/junior	15.40%	41.05%	16.25%	27.33%
Female/senior	27.30%	22.71%	27.28%	22.75%

Based on an individual's gender, academic year (freshman, sophomore, junior, or senior), and the associated percentage distribution for particular obstacles, the table breaks down the perceived external objective environmental concerns that they confront. There are four main problems listed: "Lack of experience, lack of ability," "Insufficient start-up capital," and "High risk, low success rate." The percentage of respondents who classified each topic as a significant worry within a certain gender and academic year category is indicated by the figures in each cell of the table. Among male freshmen, for example, the greatest proportion of respondents (36.38%) voiced concerns regarding "Lack of experience, lack of ability," and 14.53% mentioned "High risk, low success rate" is particularly noteworthy. Conversely, senior females expressed serious concerns about "Lack of experience, lack of ability" (22.75%) and "Insufficient start-up capital" (27.30%). Upon examining the table comprehensively, it is evident that particular difficulties are more relatable to particular demographic cohorts. For instance, seniors who identify as female seem to be most worried about financial limitations, whereas seniors who identify as male are more worried about taking on high-risk tasks and having insufficient expertise or skill. These observations can be helpful in customising resources and assistance to address the unique difficulties encountered by various groups within the community under study.

4.1. Positive Impact

Innovation and entrepreneurship education can boost practical skills. Schools should increase their education to promote students' creative endeavours and creative enterprises. Each year, colleges and universities host creative entrepreneurial class skills competitions, operate business incubators, open creative entrepreneurial activities, and offer rich, vibrant curricula that enhance college students' creative entrepreneurial experiences. Innovation and entrepreneurship education may boost students' mental health. Different phases of innovation and entrepreneurship raise different issues. A creative entrepreneurship education improves pupils overall. Throughout college, the goal is to foster creativity in education, replicate real-world business situations, allow students to interact with each other, experience real entrepreneurship, play role-playing, develop self-employment skills, gain practical experience, and help each other in the simulated business. Innovation and entrepreneurship instruction make understudies more cutthroat. Students ought to find out about innovation and entrepreneurship to foster their pioneering perception, comprehend the difficulties business visionaries face, and track down answers for become autonomous and serious.

4.2. Negative Impact

The learning of other courses will be impacted by innovation and entrepreneurship practice activities. Students in college should prioritise their coursework. Entrepreneurship and innovation are limited to college life. Don't make them your entire existence. It is easy for college students to lose interest in innovation when they experience failure in entrepreneurship. College students lack adequate social experience, and innovation and entrepreneurship are risky endeavours. Failure to accurately analyse the existing market condition is likely to result in entrepreneurship failure in the face of intense market competition pressure on entrepreneurship. Pupils with little psychological fortitude will suffer, as well as a loss of bravery and inventive consciousness.

5. CONCLUSION AND RECOMMENDATIONS

Undergrads' schooling in innovation and entrepreneurship is by and large progressively impacted by the headway of data innovation and the beginning of the enormous information period. The public authority, instructive establishments, teachers, and organizations ought to acknowledge their different jobs in the training system and work pair to assist the schooling system with adjusting to the evolving times. The public authority ought to acquaint various strategies with empower entrepreneurship, colleges and colleges ought to make a plan framework, teachers ought to show entrepreneurship hypothesis in a calculated manner, organizations ought to offer a certifiable stage for rehearsing entrepreneurship, and educators ought to lead precise entrepreneurship hypothesis schooling. To foster the elements of innovation and entrepreneurship schooling in colleges, all partners team up.

Recommendations:

- **Enhance the system that fosters innovation and entrepreneurship:** Government organizations ought to attempt to construct and further develop the credit framework all the more rapidly, cultivate a climate that is open, just, and reasonable for the market, and urge understudies to engage in the flood of innovation and entrepreneurship.
- **Give government policies and systems their due:** All levels of government should strongly encourage college students' innovation and entrepreneurship by providing financial support and convenient policies, such as a number of preferential conditions. Records and length of service are two topics that receive special attention.
- **Enhance family support and entrepreneurship education:** Colleges and colleges ought to constantly attempt to further develop the learning climate, increase present expectations for innovation and entrepreneurship guidance, bring novel thoughts into the educational program and the homeroom, urge students to acquire hypothetical information from the courses and assets, and lay out a strong starting point for down to earth insight. Use the assets given by the local area, the instructive organization, and the family to encourage the prosperity of understudies.

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