

Research on Lean Entrepreneurship Model for College Students Based on Innovative Practice

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Abstract: Compared to the group of college students with entrepreneurial intentions, the actual entrepreneurship rate is significantly lower. the unsuitability of project selection is a key factor hindering college students from translating their entrepreneurial ideas into practical actions. Therefore, this study proposes to combine innovative practices with lean entrepreneurship models, aiming to help college students discover entrepreneurial projects and reduce risks in the entrepreneurial process. Compared to college students with entrepreneurial intentions, the actual entrepreneurship rate is significantly lower. the unsuitability of project selection is a key factor hindering college students from translating their entrepreneurial ideas into practical actions. Therefore, this study proposes combining innovative practices with lean entrepreneurship models, aiming to help college students discover entrepreneurial projects and reduce risks in the entrepreneurial process.

Keywords: Innovation and Entrepreneurship; Innovative Practice; Lean Startup

1. Introduction

In May 2015, the General Office of the State Council issued the "Implementation Opinions on Deepening the Reform of Innovation and Entrepreneurship Education in Higher Education Institutions", which clearly stated that deepening the reform of innovation and entrepreneurship education in higher education institutions is an urgent need for the country to implement the innovation driven development strategy, promote economic quality and efficiency improvement, and an important measure to promote comprehensive reform of higher education and higher quality

entrepreneurship and employment for college graduates. Scholars at home and abroad have conducted extensive research on entrepreneurship education for college students. However, the proportion of entrepreneurship among higher education graduates in China is only 5%, significantly lower than the 25% in the United States and 15% in Japan. Furthermore, the success rate of entrepreneurship among Chinese college students is only 3% of the entrepreneurial student population, in sharp contrast to the success rate of about 20% for American graduates. According to the 2018 China Undergraduate Employment Report, the proportion of Chinese college students starting their own businesses in 2017 was 2.9%, a decrease from 3% in the previous two years. Specifically, the proportion of vocational college students starting their own businesses is 3.8%, while the proportion of undergraduate graduates starting their own businesses is only 1.9%. This data reveals that the low rate of self employment among college students has become a serious problem that urgently needs to be solved [1].

By integrating existing relevant research, entrepreneurial intention is defined as two dimensions: entrepreneurial commitment and start time. From the perspective of risk-taking willingness, this study analyzes the impact mechanism of factors such as entrepreneurial self-efficacy on college students' entrepreneurial intentions. the results show that male, science and engineering majors, and high entrepreneurial self-efficacy college students have the strongest entrepreneurial intentions; As they grow older, the entrepreneurial commitment of college students will gradually decrease; There is a U-shaped relationship between family background characteristics and college students' entrepreneurial intentions to a certain extent, that is, the two types of college

students with poor and good family conditions have the strongest entrepreneurial intentions; Father's entrepreneurial role model can effectively increase the entrepreneurial commitment of college students [2].

2. Reasons for the Low Success Rate of College Students' Entrepreneurship

Currently, the low success rate of college students' entrepreneurship is due to both subjective and objective reasons. Subjective reasons mainly include insufficient social experience, poor practical and hands-on abilities, and a lack of cooperation awareness. The objective reason is mainly reflected in the fact that although the country has successively introduced a series of preferential policies and support policies to support college students' entrepreneurship, their specific implementation has been greatly reduced, directly affecting the entrepreneurial enthusiasm of college students.

The low success rate of college students' entrepreneurship is due to insufficient social experience, weak practical ability, poor cooperation awareness, and ineffective implementation of national policies. Insufficient entrepreneurial ability, lack of necessary knowledge, funding, and market understanding. College students should combine theory and practice to enhance their comprehensive abilities, possess a firm entrepreneurial will, and have good psychological qualities. Weak market awareness requires in-depth market research and the development of clear marketing plans. Poor entrepreneurial mindset, fear of failure, lack of practical preparation and knowledge, insufficient understanding of challenges and pressures. Psychological resilience and practical understanding are crucial for entrepreneurial success [3].

College students' entrepreneurship requires factors such as funding, projects, experience, teams, and social resources. Newly graduated college students may have passion and knowledge, but they lack experience and resources. They do not understand market demand, are prone to making mistakes and losing business opportunities, and are immature in interpersonal communication. Therefore, learning entrepreneurial knowledge is crucial for college students to succeed in entrepreneurship. At the same time, college students often rely on loans for funding in the early stages of entrepreneurship, but bank loans

require asset guarantees, which is a challenge for them. Understanding modern fundraising methods is crucial for college students to raise entrepreneurial funds.

3. Lean Startup

In response to the phenomenon that the actual entrepreneurship rate of college students is much lower than that of college students with entrepreneurial intentions, a low-risk entrepreneurship model suitable for college students' entrepreneurship is proposed to assist them in entrepreneurial practice. The specific research content includes:

The concept of Lean Startup was first proposed by Eric Rice from the United States [4]. The entrepreneurial concept of entrepreneurship, innovation, and products for startups includes two important elements: value assumptions and the simplest feasible product. At present, the country vigorously promotes innovation and entrepreneurship among college students. For college students who lack experience, funding, and social connections, the idea of lean entrepreneurship can greatly make up for the shortcomings of college students' entrepreneurship, reduce entrepreneurial risks, and improve the success rate of entrepreneurship.

Lean entrepreneurship is a closed-loop feedback process that involves conducting scientific experiments and verifying hypotheses through active trial and error. The process of defining user pain point assumptions and solution assumptions in lean entrepreneurship, and then verifying user pain point assumptions and solution assumptions.

The main process of lean entrepreneurship is the feedback loop of "development measurement cognition", which adapts to needs and is easy to integrate. From a deeper perspective, the "development measurement cognition" closed-loop cycle is essentially a process of "hypothesis verification", and every "development measurement cognition" feedback cycle in lean entrepreneurship is a cycle of "unverified hypothesis → confirmed cognition". The process of "hypothesis verification" is accompanied by cognitive iteration of entrepreneurs, therefore the "development measurement cognition" feedback loop is also known as the cognitive iteration loop, which includes six stages: concept, development, product, measurement, data, and cognition.

Among them, development, measurement, and cognition are the core links, while concepts, products, and data are auxiliary links [5].

We will research methods for reducing entrepreneurial risks among college students through lean entrepreneurship. For college students who lack experience, funding, and social connections, the concept of lean entrepreneurship can greatly compensate for the shortcomings of college entrepreneurship, reduce entrepreneurial risks, and improve the success rate of entrepreneurship.

Research the integration and collaboration between lean entrepreneurship methods and innovative practices (innovation training, technology competitions, innovation projects, entrepreneurship competitions) projects. Research the intrinsic connections of innovative practice projects, establish a feedback loop of ideas development measurement cognition new ideas, and cultivate the ability of college students to transform innovative training projects into entrepreneurial projects.

4. Lean Entrepreneurship Model based on Innovative Training

The lean entrepreneurial strategy and theory are gradually being adopted by startups around the world, and have also been used by many business schools for entrepreneurial case analysis. Lean entrepreneurship is the best way to deepen practical entrepreneurship education in universities. Guidance course teachers can integrate lean entrepreneurship ideas into university entrepreneurship courses, draw on lean entrepreneurship concepts, and provide more professional, specific, and in-depth help and guidance to college students who are starting their own businesses based on practical experience. This will improve the efficiency of college students' entrepreneurship, increase the possibility of entrepreneurial success and the sustainability of enterprise competition, and ultimately create maximum benefits and value for college students' entrepreneurial enterprises and customers. Lean entrepreneurship is worth promoting widely in the field of entrepreneurship education in universities. Establish a lean entrepreneurship model as shown in **Figure 1**.

The project integrates innovative training programs into the process of cultivating college students' entrepreneurship based on the lean entrepreneurship model, and conducts two case

practices.

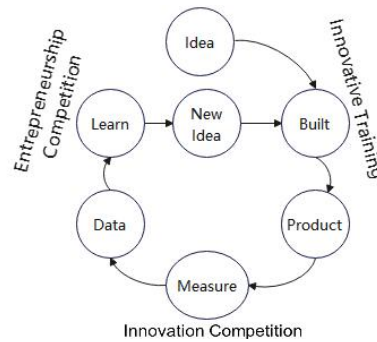


Figure1. Lean Entrepreneurship Model Based on Innovative Practice

Starting from the creative idea of vehicle energy conservation and carbon reduction, guide students to apply for the innovative training project of "Design and Research of Composite Power Trailers Based on Supercapacitors". After practical training, propose the innovative competition topic of "Energy Recovery System for Trailers". After multiple rounds of testing and practice, propose the entrepreneurial training project of "Integrated System of Power and Energy Conservation" for entrepreneurship competition.

Starting from the creativity of elderly care technology, guide students to apply for the innovative training project of "Electric Power Assisted Cane with Load Capacity". After practical training, propose the innovative competition topic of "Electric Power Assisted Cane with Load Capacity". After multiple rounds of testing and practice, propose the entrepreneurial training project of "Jinan Kangjian Elderly Care Technology Co., Ltd. " for entrepreneurial training.

5. Conclusions

In response to the current scarcity of entrepreneurial projects among college students, this article proposes a strategy that combines innovative practice projects with lean entrepreneurship models. During the innovation training phase, this study proposed an innovative methodology and preliminary project design. Subsequently, the innovation and feasibility of the proposed concepts were validated and improved through technology competitions. Ultimately, these concepts will be transformed into practical operations through entrepreneurship competitions, and refined through practical refinement. Based on the author's own practical experience, this study implemented two rounds of project practice and

achieved the expected practical results.

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