

# Research on Innovation and Entrepreneurship Project Management and Management Informatization in Colleges and Universities

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**Abstract:** *Innovation and entrepreneurship education is the focus of the optimization and reform of colleges and universities in my country. Cultivating college students' innovation and entrepreneurship development ability is the demand for talents in the current society. Therefore, it is particularly important to improve the management level of innovation and entrepreneurship projects in colleges and universities. This paper analyzes the deficiencies in the management of innovation and entrepreneurship projects in colleges and universities, and proposes effective measures for the informatization of project management, in order to help colleges and universities improve the management level of innovation and entrepreneurship projects through information technology, and help students gain knowledge and experience in projects. They achieve comprehensive development.*

**Keywords:** *Colleges and Universities, Innovation and Entrepreneurship, Project Management, Management Informatization*

## 1. Introduction

In modern college education, innovation and entrepreneurship education, as an important starting point for college teaching reform, has become an indispensable part of the talent training model in colleges and universities, and has been run through the entire teaching system. As the core of innovation and entrepreneurship education, the practice of innovation and entrepreneurship projects has always received the most attention and attention. The Ministry of Education encourages the development of innovation and entrepreneurship projects, aiming to transform the original teaching ideology of colleges and universities in the form of project practice, optimize the talent training model, enhance the innovation and entrepreneurship awareness and ability of college students, and cultivate more outstanding talents to meet the development of an innovative society. Therefore, colleges and universities should pay more attention to the management of innovation and entrepreneurship projects, strengthen the construction of innovation and entrepreneurship resource information bases and project management platforms, take information management as the main driving force for cultivating talents for innovation and entrepreneurship in colleges and universities, and effectively improve the management level of innovation and entrepreneurship projects in the university.

## 2. Deficiencies in the Management of Innovation and Entrepreneurship Projects in Colleges and Universities

### 2.1. The project topic is inconsistent with the direction of the tutor resources

In the practice of innovation and entrepreneurship projects in colleges and universities, most college students' innovation and entrepreneurship projects are teams jointly formed by classmates, and their main course teachers serve as mentors. However, usually in the project guidance teaching, the tutor finds that the practical content of the students' innovation and entrepreneurship projects is inconsistent with the direction of their own educational research, resulting in the teacher having more than enough power in the center of the guidance process; and the students will also find members in the project practice. Their professional backgrounds are basically similar, which makes some inter-professional problems unable to be better solved, some students with professional advantages have not been able to find highly matching projects, and some project teams are also difficult to find students who can meet the needs of project practice .

## ***2.2. The project assessment and supervision mechanism is not perfect***

In the management of innovation and entrepreneurship projects in colleges and universities, the results are generally based on the evaluation and assessment methods, with innovation and entrepreneurship projects as the center, and two methods of sampling inspection and final inspection are adopted to manage and review projects. Obviously, this traditional project assessment and supervision mechanism. It lacks scientific rationality. On the one hand, it is not conducive to the in-depth communication between the project team and the tutor. The team encounters difficult problems in project practice and cannot be solved in a timely and effective manner. Members will develop inertia, and may even lead to the end of the project.

## ***2.3. The traditional and single project management method***

At present, the management methods of innovation and entrepreneurship projects in many colleges and universities are very simple. They only conduct assessment and analysis of the project implementation progress and practical situation according to the relevant regulations of project management. Generally, projects that pass the audit will be funded, while those that fail the audit will be terminated directly. However, they do not pay much attention to the information data formed by the students in the project practice, do not compare and analyze it in depth with the content of teachers' guidance, and do not build a project management mechanism for continuous improvement, which makes the management of innovation and entrepreneurship projects lack scientific rationality.

## **3. Management of university innovation and entrepreneurship projects based on life cycle theory**

The establishment of innovation and innovation projects in colleges and universities is not only the internal demand of their own teaching development, but also an inevitable trend to adapt to the social development. Therefore, colleges and universities should also actively take effective measures to urge the smooth implementation of innovation and entrepreneurship projects. Life cycle theory is an effective management theory of innovation and entrepreneurship project management in colleges and universities, which should be widely applied to projects. Specifically, the steps of managing university innovation and entrepreneurship projects based on life cycle theory are as follows.

### ***3.1. Do a good job of publicity and guidance***

Colleges and universities before implementing innovative entrepreneurship project should first expand propaganda, guide students to understand why to organize innovative entrepreneurship projects, the specific content of the project, implementation ways, etc., let them can clearly know the importance of innovative entrepreneurship projects to their own learning development, to stimulate students' active participation consciousness, encourage them to put their own innovative entrepreneurial ideas into practice, and then promote the smooth and effective implementation of the project. Therefore, colleges and universities should focus on the publicity of innovation and entrepreneurship projects, build corresponding innovation and entrepreneurship websites, regularly organize lectures on innovation and entrepreneurship topics, expand the influence of project publicity through online and offline campus culture platforms, and create a good atmosphere for innovation and entrepreneurship for students.

### ***3.2. Project application project approval***

After completing the project planning according to the life cycle theory, you can apply for innovation and entrepreneurship projects. The project approval content mainly includes project objectives, project content, project scope, implementation technical plan, feasibility analysis, expert review, defense and inquiry, contract signing and other related processes. In particular, the defense inquiry and expert evaluation are very critical in the application and project approval stage, which is related to the development prospect, inquiry value and implementation significance of the innovation and entrepreneurship project, and determines whether it has a good forward-looking nature, whether it can continue to be implemented, and finally sign the project contract smoothly. Only the projects with novel topics, clear ideas and correct views can have good innovation and forward-looking future, so as to achieve the ideal project implementation results.

### ***3.3. Write the project plan***

Life cycle theory, writing project plan is related to the final success or failure of university innovation entrepreneurial project, its focus by the project objectives, task decomposition, members of the division of labor, schedule, budget, resource allocation, these contents are the important basis of innovation entrepreneurship, and only strengthen the project plan written scientific and reasonable, to improve the feasibility of project implementation, improve project implementation success rate, to ensure that the project can be completed smoothly. It can be seen that the plan is to establish the development direction of the university innovation and entrepreneurship projects, and further clarify the work scope of the project members. Even if there will be new adjustments in the project implementation of the project, it will not affect the implementation progress of the project, so as to achieve the ideal project results.

### ***3.4. Implement project control***

After the compilation of the university innovation and entrepreneurship project plan is completed, the project control stage can be entered. This stage needs to do project progress, quality, risk, cost, and many other aspects of factors control, through supervision can find problems existing in the project management and obstacles, then can be quickly correct for project problems, avoid and prevent potential errors, revise the project implementation progress, budget and target, and so on. Thus it can be seen that the scientific project control can effectively reduce the uncertainty of the project implementation, and further improve the feasibility of the project implementation, so the innovation and entrepreneurship projects in colleges and universities should formulate a phased supervision and inspection mechanism.

### ***3.5. Complete acceptance assessment***

After the completion of the implementation control stage, the innovation and entrepreneurship projects in universities will enter the stage of conclusion and acceptance evaluation, which is mainly the quantitative and qualitative assessment of the project members. Given college innovation entrepreneurial achievements usually have strong theoretical characteristics, so it is difficult to use detailed index evaluation assessment, so most colleges and universities are the project implementation results and project plan target, considering the social benefits and economic benefits of the project, comprehensive project team reward mechanism and member contribution value, etc., finally give the corresponding reward and recognition. Project acceptance is to carry out the project conclusion report, it also requires project members inductive project implementation link all data and comprehensive analysis and research, combined with the analysis results, the project reality to write a summary report, apply for research and development of patent protection, finally submitted to the superior expert review, to determine whether the project to complete its target requirements.

## **4. Effective measures for the informatization of innovation and entrepreneurship project management in colleges and universities**

### ***4.1. Building a resource information database for innovation and entrepreneurship in colleges and universities***

#### ***4.1.1. Build a tutor information resource base***

In order to improve the management level of innovation and entrepreneurship projects, colleges and universities must actively keep pace with the times. First, build a tutor information resource database, and include professional backbone teachers, well-known research scholars, and economic and management professional course tutors in the innovation and entrepreneurship tutor information resource database. The personal account is jointly authenticated with the university's own teaching and research system, so that students can browse the page by themselves to understand the research directions of each tutor, and check the relevant tutor's areas of expertise in innovation and entrepreneurship. Secondly, colleges and universities can invite famous off-campus scholars, economic investors, entrepreneurial talents, famous entrepreneurs, previous alumni, etc. to serve as innovation and entrepreneurship mentors, and create personal accounts of off-campus mentors for them and build their information homepage [1].

#### ***4.1.2. Build a portrait of students' ability and quality***

Colleges and universities should carry out unified and joint certification of students' personal information on the innovation and entrepreneurship project management platform with related systems

such as educational affairs system and student management system, so as to build a portrait of students' personal ability and quality, so that the project management platform can recommend innovation and entrepreneurship for students in a targeted manner. Project team and professional mentors [2]. In addition, in the process of students' practical projects, they should also conduct objective comprehensive evaluations through tutors, team leaders and team members in light of their specific completion performance, and update students' personal ability and quality portraits in a timely manner based on the final evaluation results.

#### ***4.1.3. Enrich the resource pool of innovation and entrepreneurship projects***

There are three main sources of innovation and entrepreneurship projects in colleges and universities. The first is corporate scientific research projects led by college teachers, achievement transformation projects, military-civilian integration projects, etc. Of course, it also includes complex systems of interdisciplinary knowledge such as professional course work and curriculum design. The second is an integration project of industry and education led and guided by social enterprises and third-party institutions based on social needs. Taking solving a certain practical problem in the production, operation and management of the enterprise as the breakthrough point, formulate a real enterprise Practical projects; the third is student-centered projects that can fully reflect students' personal innovation and creativity, such as innovation and entrepreneurship competitions in professional fields, innovation and entrepreneurship training for college students, etc. [3].

### ***4.2. Building a management platform for innovation and entrepreneurship projects in colleges and universities***

#### ***4.2.1. Project docking platform***

Students can learn about all the projects in the platform's innovation and entrepreneurship project resource pool through their personal accounts, and students can apply to join the ideal project team to become a member of the ideal project team based on the project description, practical progress and personnel requirements, combined with their own professional advantages. You can also propose creative plans and apply for the formation of a project team, publish information on the formation of innovation and entrepreneurship projects, team member recruitment information, etc. through the platform resource pool, and seek support from innovation and entrepreneurship mentors inside and outside the school with the help of the mentor information resource pool. In addition, it is recommended to implement some small scientific research projects and enterprise operation projects as student innovation and entrepreneurship projects from the perspective of college teachers and enterprise development, and upload basic project information and team talent recruitment information in the platform resource pool. The technical backbone can be used as the mentor of the project team by default, and at the same time, the mentor who is highly in-tune with the project can be re-selected through the mentor information resource library according to the actual situation.

#### ***4.2.2. Project process management platform***

After the university innovation and entrepreneurship project team and mentor are finalized, the team should regularly report the project development progress on the system, which should include project plan progress, project objectives and tasks, work progress at this stage, stage work results and specific problems in practice, etc.; at the same time; each member of the project should regularly report personal work progress and specific situation through the platform. Then, the mentor can evaluate the project progress and staged results in a timely manner, and give corresponding guidance on the problems encountered by the team; at the same time, the project mentor, team leader, and team members should fully combine the completion of each person's work. , for teams that fail to report their work as required in a timely manner, they shall be reminded and warned through the platform system. For teams or individuals who have accumulated more than three times, the project mentor can directly suggest the termination of the project or the expulsion of members. During the initial and mid-term inspections of the project, as well as the project pre-incubation inspection stage, the judges and tutors can view the students' project progress logs through the platform and use it as one of the important indicators for project inspection and scoring.

#### ***4.2.3. Project service platform***

According to the progress of college students' innovation and entrepreneurship projects, a series of service measures such as site application services, financial support services, and patent application services are provided for teams through the platform, and a connection service model is established with

government departments related to the industrial and commercial tax law. In addition, major research institutes, cooperative incubators, and maker spaces that cooperate with universities are invited to help the incubation of college students' innovative and entrepreneurial mature project teams.

#### **4.2.4. Intelligent service system**

In the work connection and practice of innovation and entrepreneurship projects in colleges and universities, collect students' ability and quality portraits and data related to project practice, including student evaluation data from multiple evaluation subjects, and analyze the important contributions and outstanding strengths of students and tutors in the project, such as students who are good at Develop programming software, carry out teamwork, write plans, etc. On this basis, an innovation and entrepreneurship team is formed in accordance with the principle of talent application, and a more rational and intelligent service is provided for students to complete innovation and entrepreneurship projects through the mentor matching recommendation algorithm.

### **5. Conclusion**

In a word, the construction of the innovation and entrepreneurship project management platform in colleges and universities is not only for the whole-process management of the project, but also to provide students with a variety of project services. With the help of the platform system, it provides information release, team building, project investment, Taxation, patent application and other services, carry out project declaration, tutor appointment, venue booking, team entry, technology incubation, seeking partners, etc. By collecting project data and conducting big data analysis, it provides comprehensive engineering and intelligent management services for innovation and entrepreneurship projects, reasonably improves the quality of college students' innovation and entrepreneurship projects, optimizes innovation and entrepreneurship education activities, and effectively improves the quality of talent training.

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