Hindawi Scientific Programming Volume 2022, Article ID 5682226, 11 pages https://doi.org/10.1155/2022/5682226



#### Research Article

### Design of Digital Platform for College Innovation and Carving Out Cultivation Project Based on Intelligent Analysis

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Received 7 March 2022; Revised 11 April 2022; Accepted 22 April 2022; Published 10 May 2022

Academic Editor: Sheng Bin

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With the gradual integration of the Internet into people's daily life and the increasing number of students and organizations joining the Internet wave, more and more people begin to carry out entrepreneurial activities by taking advantage of the rich resources, sharing, and communication characteristics of the Internet. No matter ordinary people or outstanding social elites, they can develop their own innovation and creativity at all levels under the influence and role of Internet informatization. University students' innovation and carving out are one of the vital methods to alleviate the strain of social employment and industrial transformation and development; however, the lack of entrepreneurial high-quality and bad integration of social sources also has an effect on the success of university students' innovation and carving out. To resolve the above problems, this article constructs a digital platform for innovation and carving out cultivation undertaking in schools and universities primarily based on smart analysis. Digital-wise evaluation can successfully promote the data administration of the platform, overcome the inherent troubles such as old-fashioned records sources and gradual updating of regular platforms, make full use of the advantages of large data, combine scan and theory, and assemble a remarkable varied ecological environment. Within the functional scope of the platform, provide innovation and carving out information resources for users in need, enhance the clever processing stage of innovation and carving out facts in schools, recognize the adaptive scheduling of innovation and carving out facts, minimize the work depth of innovation and carving out records managers, enhance the deployment effectivity of innovation and carving out data in faculties and universities, and domesticate the innovation and carving out capability of university students in an all-round way. Promote the innovation and improvement of innovation and carving out things to do in universities.

#### 1. Introduction

In current years, due to the enlargement of university enrolment and the implementation of instructional industrialization policy, the boom of the range of university students a long way exceeds the increase of abilities required by way of monetary growth. Therefore, in the severe employment situation, extra and greater university students select to begin a business. Although at present, university students' innovation and carving out have a true coverage surroundings and the useful resource aid furnished with the aid of the government, companies, and schools, the innovation and carving out state of affairs of university students is nevertheless no longer confident [1]. College students' innovation and carving out schooling is an academic idea

and mode underneath the new scenario of the speedy improvement of social financial system and greater education. Under the advertising of more than a few guide policies, how to enhance the success fee of university students' entrepreneurship via the schooling of innovation and carving out in schools and universities is a pressing trouble to be solved [2]. Industry insiders agree with that the lack of entrepreneurial first rate of university students and the terrible social entrepreneurial surroundings together led to the low success fee of university students' entrepreneurship. The principal motive is the lack of guide and warranty of the built-in entrepreneurship provider machine of government, school, and enterprise; students have insufficient understanding of entrepreneurial rationality, monotonous entrepreneurial model, lack of team and core skills support, single financing

mode, and low economic benefits [3]. To solve this phenomenon, we need to analyze and clear up the troubles and barriers present in the total manner of students' innovation and carving out from the components of innovation and carving out system, cultivating students' entrepreneurship awareness, cultivating values and developing innovation and carving out surroundings and atmosphere, and plan, sketch, and construct an innovation, and carving out provider platform integrating innovation and carving out education, practice, entrepreneurship support, and achievement transformation, and through supporting entrepreneurship promotion policies and education system, promote college students' entrepreneurship.

In the standard technique of innovation and carving out, it is fundamental to fill in the entrepreneurship software in paper form. If the application submission still needs to wait for a long time for review and processing, the information is relatively slow and blocked in the feedback process, which has a negative impact on the enthusiasm of entrepreneurs [4]. Innovation and carving out are a special work, its relationship structure is very cumbersome, and it involves all units and departments. Such a mannequin absolutely requires a lot of human and cloth resources, and the team of workers are frequently in a massive quantity of innovation and carving out work, resulting in a very large cost but no due effect. Traditional innovation and carving out are often disconnected in the process of dealing with innovation and carving out matters; that is, after a certain innovation and carving out are tracked for a period, no one cares [5]. Only when the problem arises again and is reflected by the public, will it continue to be dealt with. If there is a long interval between them, resulting in the loss of preliminary treatment opinions, it is the result of repeated inquiries, ensuing in a waste of resources. Therefore, to make sure the improvement of entrepreneurship, it is urgent to build a corresponding innovation platform by training innovative talents as a bridge and establish a corresponding support mechanism to provide a fair guarantee for the platform.

Based on the evaluation of the planning and fast improvement of progressive industries, this article elevates out Internet-based entrepreneurship services, promotes the transformation and marketization of research results, opens to the public, decorates the fee of achievements, and promotes the accelerated improvement of typical industries, science and high-quality industries, and rising industries, so as to adapt to the improvement of economic system and society and meet the desires of the public. This article by and large focuses on the plan and implementation of the digital platform of university innovation and carving out cultivation assignment based totally on shrewd analysis. The organizational shape of this article is as follows: Section 1 is the introduction, which analyses the heritage of platform development, and Section 2 is the applicable work, which describes the cutting-edge lookup scenario of such systems at domestic and abroad. Section 3 summarizes the building concept of college innovation and carving out digital platform based totally on smart analysis. Section 4 analyses and designs the platform system. Section 5 tests the performance of the platform. Section 6 is the summary and prospect part.

After summarizing the work introduced in the previous chapters, we get the shortcomings of the article and plan the future work.

#### 2. Related Work

At present, for the innovation and carving out platform, the degree and start of information construction in foreign countries are relatively early. Therefore, the construction of entrepreneurship platform software system is also very early. After the improvement in the latest years, the improvement of Internet technological know-how is exceptionally high. At present, the structure of the entrepreneurship platform system developed is relatively clear, the degree of standardization is relatively high, and the situation developed is also very practical.

By analysing the information management systems of foreign entrepreneurship platforms, the interfaces of these developed and designed software business systems are relatively simple and relatively standardized in operation, and have good, humanized characteristics in operation. After the improvement in current years, it has step by step realized the digital processing, unified processing, systematic processing, and some processing associated with networking in the manner of entrepreneurship platform [6]. According to the latest results of the corresponding statistical data of foreign software business associations, at present, more than 90% of school departments in the United States are using the software business image of entrepreneurship platform or the business system of human resource management to continuously realise some management of their own units or their own schools [7]. At the same time, under the background of the development of the United States, some countries in Europe have developed software business systems at a very fast speed, which has great development potential and market.

Although the functions of foreign software business for entrepreneurship are relatively mature at present, these mature software business systems cannot be effectively and directly implemented and carried out in China due to some entrepreneurship policies and national conditions at home and abroad and cannot be directly accepted by many domestic schools or units, and the main reasons may be in the following aspects [8]. First, the rate of these developed enterprise software program structures is particularly high, which many small- and medium-sized colleges in China cannot afford. Secondly, the function of the developed software business system is very powerful, but the technical difficulty of deployment and scalability is very high [9]. In the later stage, there will be many difficulties and challenges in the later stage maintenance and implementation of the system within the school. In addition, many schools at home and abroad have great differences, which cannot be deployed and handled directly in the actual situation of relevant schools in China [10].

In view of the relevant domestic situation, there are some differences and gaps in the current informatization technology and its socioeconomic development level. Compared with some developed countries, there is nonetheless a large

hole in the usual improvement degree of informatization in China. Although we have long recognized the importance of vigorously developing informatization, and many domestic colleges and universities have also vigorously carried out the construction and work of informatization, China's informatization construction is affected by many factors, such as the corresponding infrastructure, the concept of informatization development, and the development technology of informatization; in the process of future information development, there are nevertheless many issues to be solved [11]. The improvement of software program commercial enterprise gadget of entrepreneurship platform in China has solely developed in current years, and there is nonetheless a large hole and distance in many aspects, such as the time of development and the development of software business system, the specific development concept of software business system, and the standardization of the system [12].

# 3. Construction of Digital Platform for Innovation and Carving Out Based on Intelligent Analysis

The nonpublic statistics of instructors and college students in schools and universities are scattered in quite a number of systems, such as the studying topics and grades of centre faculty college students in the instructional administration system, the book borrowing information and learning time in the library system, the competitions and various activities in the student system, the participation projects in the project platform, the educating and scientific lookup and papers in the scientific lookup system, etc. It is challenging for a separate gadget to define the typical state of affairs of college students in faculties and universities, after all these facts are built-in and processed, the innovation and carving out facts platform based totally on huge records can now not solely exhibit the average state of affairs and capacity of persons in information structure, quality and ability, innovation and carving out ability, but also show the experience of project success and failure, which can be used as a reference for instructors and college students [13]. At the identical time, it can play a decision-making and guiding function in curriculum, innovation assignment, and sensible education and promote the improvement of entrepreneurship and innovation education. The improvement of the mission and the enlarge of statistics can feed again the innovation and carving out platform.

The usual improvement technique of innovation and carving out platform is essentially to kind out the enterprise first and then outline the data. However, in the modern surroundings of massive facts era, this platform building approach cannot meet the wants of current platform development. Because the platform commercial enterprise system itself can also have useful defects and because the content of innovation and carving out activities is complex and changeable, it is impossible to unify into one process, and on the other hand, having business before defining data means that data utilization may be limited [14]. Therefore, the improvement of innovation and carving out

informatization platform primarily based absolutely on large archives wants to first find out the data, take the facts as the core and venture as the practise, and build it into a data-cantered system platform that can continuously expand its functions through data mining technology. The construction mode is shown in Figure 1.

- (1) Source layer: determine the data collection object and content. For example, collect academic performance, learning subjects, majors, and other data from the educational administration system; collect the books borrowed by students from the library system and the length of study in the library; collect students' courses from school; and collect the students' online time and time from the online system.
- (2) Data layer: build a simple data table as much as possible to facilitate data processing, mining, and analysis.
- (3) Analysis layer: use data mining technology to process big data according to needs.
- (4) Presentation layer: based on big data, the content can be presented and can be changed according to demand and object at any time. Through many innovation projects and personal situations, we can analyse the personal research direction and professional characteristics, to better innovate and start a business. At the equal time, the presentation layer can show all factors of content material in more than one dimensions; for example, it can present the dynamic process of students' personal growth, the achievements of all courses, courses studied, books borrowed, library learning time, projects participated in, project results, and social practice participated in. Being able to intuitively see the overall situation of the individual, you can have a more comprehensive understanding of yourself. At the identical time, it additionally performs a wonderful reference position for social corporations in discovering and the usage of talents.

## 4. System Analysis and Design of Digital Platform for Innovation and Carving Out

4.1. Business Requirement Description. At present, the modern state of affairs and issues of university students' innovation and carving out are typically mirrored in the recognition and appreciation of innovation and carving out, the essential capabilities of innovation and carving out, the coverage of innovation and carving out, the ride of innovation and carving out, and the funding surroundings of innovation and carving out. Therefore, the evaluation of enterprise wants is basically primarily based on the hassle orientation [15]. The existence cycle manner of innovation and carving out starts off-evolved from students' enrolment, including six stages: consciousness cultivation, creative incubation, practical attempt, simulated entrepreneurship, and actual entrepreneurship [16]. College students need different degrees of support and help in each stage, including

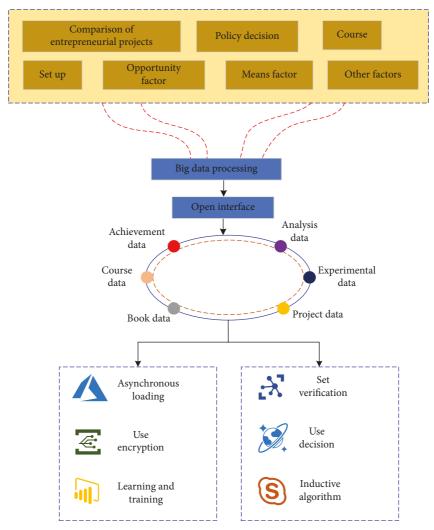


FIGURE 1: Digital platform mode of innovation and carving out based on intelligent analysis.

a series of support needs in terms of education practice, planning, capital, team, operation, and management. The schematic diagram of various support needs in the life cycle of the whole process of innovation and carving out is shown in Figure 2.

From the evaluation of a number of guide desires in the lifestyles cycle of the entire manner of innovation and carving out, it can be concluded that it no longer solely consists of the wants of entrepreneurship and however additionally consists of the wants of government, universities, society, and different elements to take part in the manner of innovation and carving out [17].

4.2. Planning of Platform Business Model. College students undoubtedly need the support and assistance of all aspects of society in the process of entrepreneurship [18]. Therefore, the service object is mainly composed of entrepreneurship management institutions, governments, universities, and enterprises. In view of the issues encountered by using university students in the method of innovation and carving out, blended with the vital function of the government,

universities, and agencies in the system of innovation and carving out, the platform more often than not focuses on cultivating university students' work exercise ability, supplemented by using assisting university students innovate and entrepreneurship, and the authorities and universities play an auxiliary aiding function to construct a bridge of cooperation between university students and enterprises, ultimately whole the total system guide of university students' innovation and carving out lifestyles cycle [19]. The normal planning composition of university students' innovation and carving out platform is proven in Figure 3.

- (1) Entrepreneurship service management platform. Realize the information service management function of entrepreneurship service management organization for the whole process of college students' creativity and entrepreneurship [20].
- (2) Educational practice service platform. Provide education and training environment related to innovation and carving out and cultivate innovative talents in combination with entrepreneurship service management platform, to lay a talent foundation for

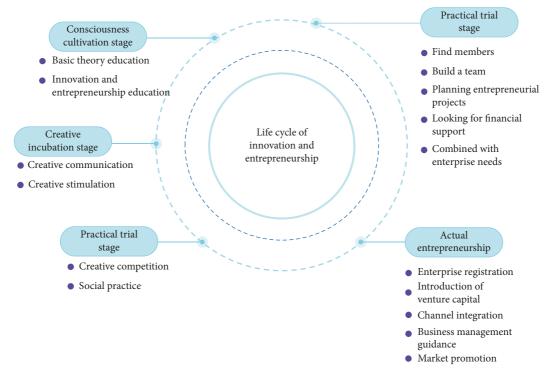


FIGURE 2: Support needs of the whole process of innovation and carving out.

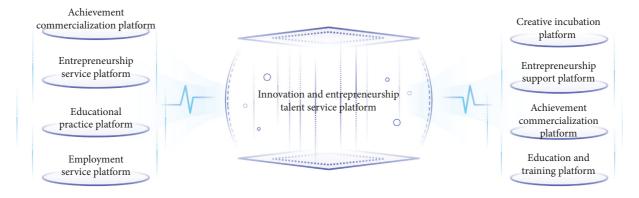


Figure 3: Overall planning of innovation and carving out platform.

- creativity and entrepreneurship. It can be gradually improved from the aspect of innovative education management [21].
- (3) Creative incubation platform. Through the gathering and sharing of ideas, stimulate college students' creative inspiration, provide a good creative atmosphere, select operable ideas, incubate specific entrepreneurial projects, and promote the formation of entrepreneurial chain.
- (4) Entrepreneurship support service platform. Provide all-round support services for college students who have started entrepreneurship, such as team, entrepreneurship guidance, and financial support. At the same time, the entrepreneurial process can also provide an environment for the training of talents.
- (5) Innovative talent service platform. It can provide creative and entrepreneurial competition activities, provide services for innovative talents, cultivate, and stimulate innovative talents to start their own businesses, stimulate the formation of creativity, and give full play to the innovative potential of talents [22].
- (6) Employment service platform. Combined with the actual demand of society for talents, integrate the information of talent demand, strengthen the communication and exchange of employment information, enhance the employment success price, meet the demand of skills, and complement nice university talents.
- (7) Achievement commercialization platform. Based on the principle of market-oriented operation mechanism,

actively introduce enterprises to participate in the investment and financing or cooperative development of achievements, or directly promote and apply to the market with the help of enterprises, to maximize the social and economic benefits.

4.3. Overall Business Process Design of the Platform. Good commercial enterprise manner sketch is the foundation of environment-friendly operation of innovation and carving out platform. The universal commercial enterprise manner of the platform adopts hierarchical relationship for commercial enterprise modelling, which is mainly divided into three modules: creative form, creative factory, and market. Because of determining each module, refine the activities in the module and establish a relatively independent subbusiness process [23]. The specific business process is students gather ideas, entrepreneurial intentions and ideas to the platform, college teachers and enterprise experts guide and screen creative entrepreneurial ideas, form entrepreneurial projects or product achievements, import them into the achievement database, promote the achievements through market-oriented operation means, or build investment cooperation channels and other services, and finally, the results will be transformed into socioeconomic value.

4.4. Overall Construction Objectives of the Platform. The development of innovation and carving out carrier platform can supply an appropriate help platform for students' training, discover new modes and strategies of innovation and carving out education, standardize the system administration of innovation education, understand the interplay and mutual feeding of a couple of links, and enhance the degree of brain coaching and training [24]. By introducing the training and coaching of innovation and carving out on the groundwork of faculty theoretical education, we can expand students' horizons, enhance students' sensible capacity and quality, domesticate new skills with revolutionary wondering and entrepreneurial spirit for the society, meet the necessities of the kingdom for best education, meet the pressing wants of the complete society for high-level abilities, and improve the social adaptability and employability of college graduates; increasing the employment rate and successful entrepreneurship can also add a large number of jobs to the society [25].

Therefore, the construction goal and orientation of innovation and carving out service platform can be summarized as follows: as a supporting platform for the whole process of innovation and carving out, it is a good management platform for the whole process of innovation and carving out, which can provide efficient and convenient innovation and carving out education practice platform, and provide an interactive cooperation platform combining online and offline between college students and enterprises; as a creative mode of production, study and research innovation, entrepreneurship, and other achievements, promotion platform has become an investment service platform to attract venture capital and financing.

#### 5. Experimental Analysis

To affirm the blessings of the innovation and carving out statistics sharing platform below massive information analysis, taking a college as the experimental object, the platform created in this article is applied to the university. Provide innovation and carving out information resources for the university, improve the intelligent processing level of innovation and carving out information, comprehend innovation and carving out data sharing, and domesticate the innovation and carving out capacity of university students in an all-round way. This platform not only provides the services of activity release, legal services, policies and regulations, data download, resource management, monitoring audit, and system management, but also makes statistics on the survey data of service resource profile and data resource profile, and provides users with opinion feedback module, task reminder module, and system alarm module, which has convenient operation and high integrated control ability; it is conducive to enhance the person stickiness and utilization of innovation and carving out data sharing platform.

5.1. Verification of Platform Data Mining Performance. To affirm the innovation and carving out records mining potential of the college after making use of this platform, the following experiments are carried out. The series time interval and coaching set scale of the innovation and carving out facts traits of the college are set to be a hundreds and 600 s, respectively, and the large record distribution size and image width of sensible scheduling of innovation and carving out data of the college are 2100 ms and 0.15 ms, respectively. The unique information of innovation and carving out records of the college mined via the platform is proven in Figure 4.

As can be seen from Figure 4, this platform can stably mine university innovation and carving out information data, and its data mining performance is good.

5.2. Test of Platform Data Processing Performance. In order to affirm the statistics processing capacity of the platform in this article, 10 million pieces of file information data related to innovation and carving out information are selected from the university, including basic data type, document information data, file information log data, and user push information data. The n-th power incremental pressurization mode of 10 is selected as the platform operation request; similarly, the n-th electricity of 10 is selected to make bigger the stress to realise the processing of the requested range of data. The statistics processing overall performance check consequences of this platform are proven in Figure 5.

By analysing the data in Figure 5, with the gradual increase in the amount of data processed by batch requests for innovation and carving out archive's information, the number of requests that can be supported by this platform in unit time also increases significantly. At the same time, the effect of data concurrent connection is better. The

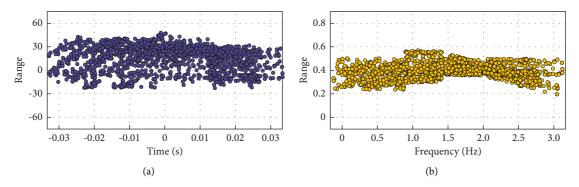


FIGURE 4: Results of innovation and carving out information mining. (a) Time-range and (b) Frequency range.

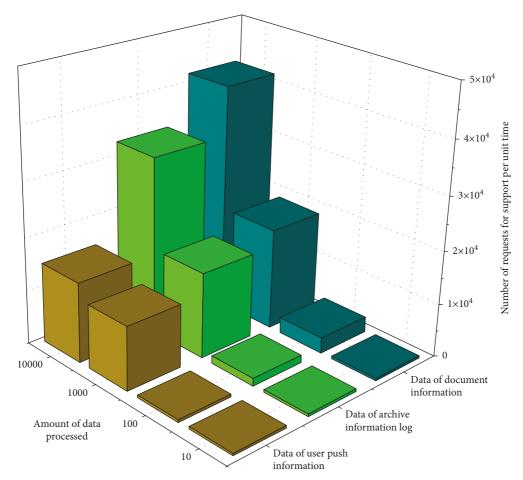


FIGURE 5: Data processing performance test results of the platform.

experimental results show that with the gradual increase of user data, the platform in this article has better data processing ability.

5.3. Test of Platform Data Scheduling Performance. To verify the data scheduling ability of the text platform, the shared service platform based on BP neural network (reference platform 1) and the education big data information platform based on resource sharing (reference platform 2) are selected as the comparison platforms to compare the real-time and

information recall of university innovation and carving out information sharing of the three platforms. The comparison results are shown in Figure 6.

Figure 6(a) indicates the contrast consequences of the real-time overall performance of the three platforms. With the make bigger of the quantity of data, the time value of the platform in this article is low and the exchange is particularly stable, whilst the time price of the two contrast systems is incredibly high, and the time fee additionally will increase substantially with the extend of the quantity of data, indicating that the real-time overall performance of

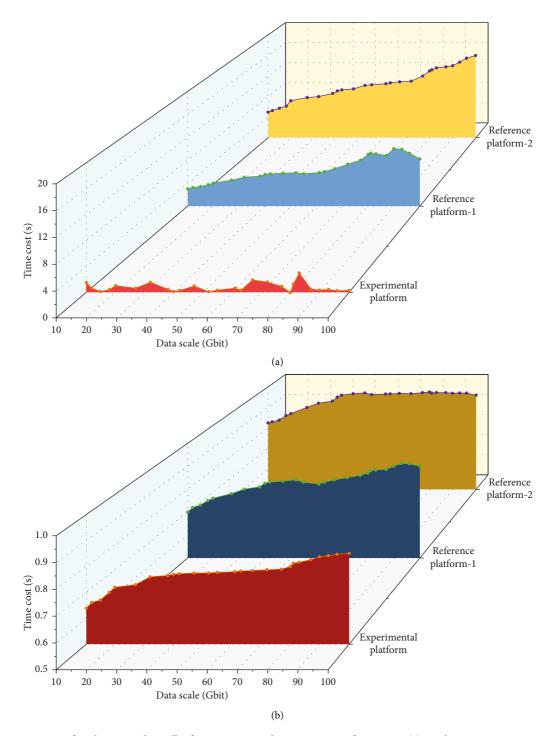


FIGURE 6: Comparison of real-time and recall of innovation and carving out information. (a) Real-time comparison and (b) recall comparison.

the platform in this article is good. Figure 6(b) suggests the assessment of the recall fees of the three platforms. With the enlarge of iterative secondary effect, the recall charge of the platform in this article is continually greater than that of the two evaluation platforms, indicating that the recall of the platform in this article is good. To sum up, the records adaptive scheduling of this platform is accurate, which can enhance the big effectivity of innovation and carving out data.

5.4. Test of Platform Performance Evaluation. Qualitatively rate the diploma of product innovation C1 and the development of data alliance of science and science park in the overall performance comparison device of the digital platform of innovation and carving out cultivation undertaking in faculties and universities, and then, comprehensively consider its overall performance in mixture with the scoring policies of quantitative indications and the primary nation of the digital platform of innovation and carving out

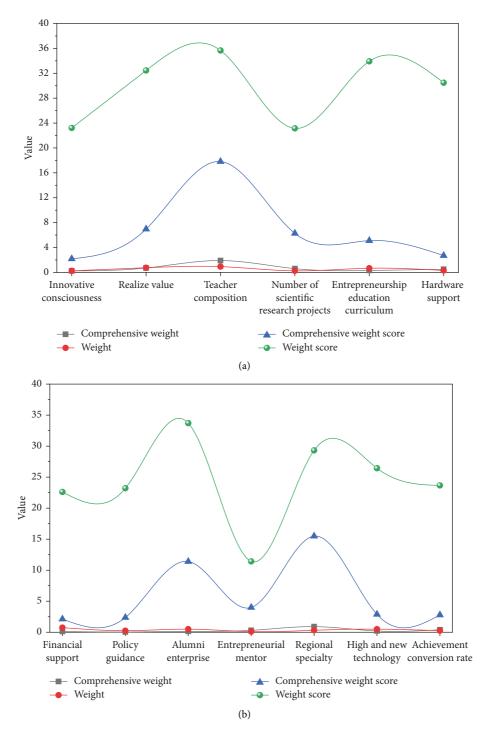


FIGURE 7: Analysis of performance evaluation results.

cultivation challenge. The experts' rankings on the qualitative index product innovation are averaged to gain the last ratings of C1 and C2 index items. At the identical time, in accordance with the fundamental repute information records of the digital platform of innovation and carving out cultivation venture, decide the precise rating of quantitative indicators, and then consider the overall performance of the digital platform of innovation and carving out cultivation challenge. The overall performance contrast statistics desk of

the digital platform of college innovation and carving out cultivation task is proven in Figure 7. According to the weight of every index, calculate the assessment outcomes of the digital platform overall performance of the innovation and carving out cultivation challenge of the university.

It can be considered from the evaluation of discern 7 that the complete overall performance comparison of the digital platform of the innovation and carving out cultivation task has reached 92.84. According to the mannequin and grasp

guidelines of the overall performance contrast of the innovation and carving out platform of the college science and technological know-how park, the overall performance of the digital platform of the innovation and carving out cultivation mission has reached the gorgeous level. Among them, environmental elements and method factors have performed precise results.

#### 6. Conclusion

College students' innovation and carving out carrier platform is a university students' innovation and carving out carrier platform integrating innovation and carving out training practice, entrepreneurship aid provider, and entrepreneurship success incubation, with a win-win model; through construction, we will structure a systematic innovation and carving out provider warranty gadget and innovation and carving out schooling system step by step. By establishing a college innovation and carving out facts sharing platform underneath large information analysis, this article focuses on the centralized and data administration of college innovation and carving out initiatives and data and offers full play to the statistics sharing position of college innovation and carving out data sharing platform. The platform makes use of huge records evaluation to realise the adaptive scheduling of innovation and carving out records and improves the generalization capacity of the algorithm. Through the interface diagram of the platform, the content material fabric of innovation and carving out records of colleges and universities can be fed decrease returned intuitively. Experiments exhibit that this platform can correctly enhance the person stickiness of the platform, clear up the hassle of immoderate information extent and scale, and noticeably enhance the facts sharing level, statistics evaluation potential, and clever administration capacity of the innovation and carving out statistics sharing platform.

#### **Data Availability**

All data, models, and code generated or used during the study appear in the submitted manuscript.

#### **Conflicts of Interest**

The authors declare that they have no conflicts of interest.

#### Acknowledgments

This work was supported by the Hunan Vocational College of Environmental Biology.

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