



Evaluating E-Learning Innovations in Education Management Based on Neural Network for Colleges and Universities' Entrepreneurship Systems

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Abstract. Innovative entrepreneurship education has been an important measure to deepen the training of talents in tertiary education institutions in China in recent years. In this paper, the NN(neural network)based research on innovation and entrepreneurship in education management institutions of tertiary education has been carried out, and the evaluation system has been constructed. The study shows that 35.86% of students go to higher education, and 23.32% of government and public institutions account for a large proportion, which can reflect the difficulty of social employment, and 23.73% of respondents in large and medium-sized enterprises are more inclined to go to well-known companies or Internet companies with well-paid salaries and commercial banks. The proportion of going abroad is 10.02%. Innovation and entrepreneurship should not only be regarded as a means or tool to express themselves in college but also become the habit and attitude of students to form continuous innovation and creation after comprehensive study after graduation.

Keywords: Neural network; Education administration; Colleges and Universities; Innovative entrepreneurship; E-Learning Innovations.

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1 INTRODUCTION

As college graduates are at a disadvantage in employment, they face more severe employment pressure. Faced with the more tense domestic employment situation, doing an excellent job in innovation and entrepreneurship education management in institutions of tertiary education is helpful to stimulate mass entrepreneurship and innovation further, further optimize the employment structure, and combine entrepreneurship and employment to become the backbone of stable

economic and social sustainable development [18],[2]. Innovative entrepreneurship education is an important measure to deepen the training of talents in tertiary education institutions in China in recent years, as pilot universities for entrepreneurship education in China, indicating that China has officially opened the curtain to support entrepreneurship education [12]. When the operation results meet the conditions, the network training is completed, and the weights and thresholds of the training results will be automatically saved to the NN. At this time, the network model can be finalized.

Most Chinese tertiary education institutions' faculty members are employment instructors, student affairs administrators, and student administrators in various departments. They are juniors in the knowledge reserve and practical experience of innovation and entrepreneurship and do not have a complete understanding of the curriculum, strengthen teacher training and introduction, increase government support and guarantee, deepen school-enterprise cooperation, build a collaborative education mechanism, integrate resources inside and outside the school, and promote complementary advantages of resources[13]. When using NN for evaluation, the data modeling of nonlinear relationships can be completed without the linear relationship of data and the interference of subjective factors. Compared with other evaluation systems, NN has incomparable advantages over other models in self-learning, evaluation process, and self-adjustment. By simulating the working principle of the human brain, the NN has powerful memory, learning, and adaptive abilities. Using this method to evaluate, building any fixed model in advance is unnecessary, and the empirical knowledge can be accumulated and used. This method can accurately describe the relationship between parameters and obtain ideal evaluation results. Finally, some countermeasures and suggestions are given for improving local university students' innovation and entrepreneurship abilities. The NN can adjust itself, and explore each index's logical relationship and weight attribute. This feature is based on the feedback mechanism between neurons in the model, which can avoid human interference, and the self-adaptive feature of NN can find the rules among disordered data so it can handle arbitrary data in theory.

Innovation and entrepreneurship education development in tertiary education institutions has taken shape. But also to have particular practical experience because entrepreneurial practice needs interdisciplinary knowledge such as enterprise management, financial management, and marketing as the foundation [14]. First, the indexes selected in the evaluation index system should have good operability reform based on NN, which is the focus of the current higher education administrators and researchers. Most Chinese tertiary education institutions' faculty members are employment instructors, student affairs administrators, and student administrators in various departments. They are juniors in the knowledge reserve and practical experience of innovation and entrepreneurship and do not entirely understand the curriculum [19],[26]. To improve the participation rate and success rate of local university students' entrepreneurship and better serve local economic development, local governments, colleges, students, and enterprises must establish a cooperative mechanism and give full play to their respective roles.

The innovations in this paper are as follows:

1. This paper establishes the evaluation index system of new entrepreneurship teaching ability. Institutions of tertiary education should actively improve and optimize the traditional teaching forms according to their actual situation, take practical teaching as an essential part, and try to get in touch with the real innovation and entrepreneurship practice content as much as possible. Only when the indicators are accessible can teachers be motivated to improve? In contrast, unreasonable indicators will directly distort the teaching evaluation and no longer have the value of inspiring and guiding teachers to engage in innovation and entrepreneurship education.

2. Improve innovation and entrepreneurship education evaluation methods in tertiary education institutions. The effect evaluation of entrepreneurship education includes three meanings: first, the

evaluation is an objective description of the achievements of entrepreneurship education; Secondly, the evaluation not only focuses on the description of achievements but also the objective description of the implementation process of entrepreneurship education; Third, evaluation is a value judgment based on basic facts, and the value judgment is consistent with the expected target requirements.

The overall structure of this paper consists of five parts.

The first chapter describes the background, content, and significance of innovation and entrepreneurship in educational management institutions of tertiary education. The second chapter mainly introduces innovation and entrepreneurship research content in educational management universities. The third chapter describes the current situation of innovation and entrepreneurship education in tertiary education institutions. It puts forward some suggestions for optimizing innovation and entrepreneurship education management mode in tertiary education institutions. The fourth chapter is the part of the simulation experiment and the description of the experimental results. The fifth chapter is the summary of the full text.

2 RELATED WORK

Grillitsch M et al. showed that with the support of relevant national policies, the construction of innovation and entrepreneurship bases in various regions has been accelerated. The model of the government, enterprises, and universities jointly building innovation and entrepreneurship bases has been widely used in reality [7]. Israel M et al. proposed that universities worldwide actively integrate innovation and entrepreneurship management ideas to add new vitality to higher education [11]. Shamsuddin A believes that the orientation of innovation and entrepreneurship is for all students, and simply offering innovation and entrepreneurship courses obviously cannot meet the complex individual differences. Divergent thinking, innovative spirit, creativity, and other psychological needs to be guided from a young age, so innovation and entrepreneurship management in tertiary education institutions is an essential basis and guarantee for entrepreneurship education in institutions of tertiary education [22]. Putro H P N, et al. With innovative thinking, willingness, and achievements, coupled with practical entrepreneurial ability such as management ability, financial ability, etc., and a good market environment, the success of entrepreneurship will be easier to achieve, and the innovative achievements will be marketized[20]. FellnhofeKIt proposes taking practical teaching as an essential component, getting in touch with real innovation and entrepreneurship practice content, entrepreneurial skills, and education objects, and internalizing them into the crucial quality of education objects. Secondary vocational school graduates are disadvantaged in employment, facing more severe employment pressure[5]. Eesley C E, et al. It is believed that institutions of higher learning should actively improve and optimize the traditional teaching forms according to their actual conditions and take practice teaching as an essential part. They should try their best to get in touch with the truly innovative and entrepreneurial practice content, entrepreneurial ability, and entrepreneurial skills of the educational objects, internalize them into the essential qualities of the educational objects, and finally cultivate entrepreneurial talents who can apply their knowledge in appropriate conditions[4].

Heaton S, et al. It is proposed that more and more college students succeed in entrepreneurship, which significantly improves the employment rate of college students and also encourages uncertain entrepreneurs. They are trying to realize their values, and at the same time, they are also trying to realize their social values [10]. Fox J, et al. Conducted in-depth analysis of entrepreneurial activities in 10 regions by sampling and analyzing. Starting from the three elements of entrepreneurial motivation, skills, and opportunities and their interrelationships, they built a policy framework for innovation and entrepreneurship education focusing on five aspects: entrepreneurial environment, entrepreneurial support, entrepreneurial financing, entrepreneurial promotion, and target group strategy[6]. Hahn D et al. believe Obviously this requires hierarchical and differentiated personalized training, which is also the requirement of the current implementation of quality education [9]. Guo

W et al. believed that entrepreneurial policies would regulate and restrict entrepreneurs' entrepreneurial practice activities, and the results of local culture, political system, social system, etc., would directly or indirectly impact the innovation and entrepreneurship practice environment [8].

Innovation and entrepreneurship education is an education system project in which all organizations work together and has many influencing factors. When building its evaluation index system, we should comprehensively analyze the regulation and management, teaching conditions, and social level of the statistics major and also consider the characteristics of students. NN has shown its advantages in pattern recognition, self-learning, self-adaptation, self-organization, automatic control, prediction, etc. NN has obvious advantages in data mining. The network keeps learning, accumulating, and strengthening training, explores the rules in data, explores the unknown, and makes an efficient evaluation.

3 METHODOLOGY

3.1 Problems in Innovation and Entrepreneurship Education in Colleges and Universities

With the increasing number of college graduates year by year, society has become widely concerned about the employment of college graduates. Institutions of tertiary education should actively improve and optimize the traditional teaching forms according to their actual situation, take practical teaching as an essential part, and try to get in touch with the real innovation and entrepreneurship practice content as much as possible, entrepreneurship and entrepreneurial skills of the education object, internalizes them into the essential quality of the education object, the graduates of secondary vocational schools who are at a disadvantage in employment are facing more severe employment pressure. Faced with the more tense domestic employment situation, doing a good job in With the increasing number of college graduates year by year, the employment of college graduates has been widely concerned by society. Institutions of tertiary education should actively improve and optimize the traditional teaching forms according to their own actual situation helpful to further stimulate mass entrepreneurship and innovation, optimize the employment structure, and combine entrepreneurship and employment to become the backbone of stable economic and social sustainable development[25]. But also to have particular practical experience because entrepreneurial practice needs interdisciplinary knowledge such as enterprise management, financial management, and marketing as the foundation, while the core nodes set in the employment service department have better coverage and higher recognition for fresh graduates and students[21]. Only when the indicators are accessible can teachers be motivated to improve? In contrast, unreasonable indicators will directly distort the teaching evaluation and no longer have the value of inspiring and guiding teachers to engage in innovation and entrepreneurship education.

Innovation and entrepreneurship education is mainly based on traditional classroom education. Some teachers are still at the preaching stage, according to the book. The theory is divorced from practice. Entrepreneurial practice needs interdisciplinary knowledge such as enterprise management, financial management, and marketing as the foundation. At the same time, the core nodes set in the employment service department have better coverage and higher recognition for fresh graduates and students, which contains rich entrepreneurial content and ideas and is also the formation process of educational ideas [15]. Establishing entrepreneurship ideology is the basis for entrepreneurship education in tertiary education institutions. But also to have particular practical experience because entrepreneurial practice needs interdisciplinary knowledge such as enterprise management, financial management, and marketing as the foundation, while the core nodes set in the employment service department have better coverage and higher recognition for fresh graduates and students. The effect evaluation of entrepreneurship education contains three meanings: first, the evaluation is an objective description of the results of entrepreneurship education; Secondly, the

evaluation not only focuses on the description of achievements but also the objective description of the implementation process of entrepreneurship education; Third, evaluation is a value judgment based on basic facts, and the value judgment is consistent with the expected objective requirements[23]. When building its evaluation index system, we should comprehensively analyze the regulation and management, teaching conditions, and social level of the statistics major and also consider the characteristics of students. Has shown its advantages in pattern recognition, self-learning, self-adaptation, self-organization, automatic control, prediction, etc. The network keeps learning, accumulating, and strengthening training, explores the rules in data, explores the unknown, and makes efficient evaluations no matter how different the path students choose in the future; the ultimate goal is to cultivate and improve their comprehensive ability so that they can create more excellent social value in the modern society.

3.2 Suggestions on Optimizing the Management Mode of Innovation and Entrepreneurship Education in Colleges and Universities

Innovative entrepreneurship education is an important measure to deepen talent cultivation in Chinese colleges and universities in recent years. As a pilot university of entrepreneurship education in China, it marks the official opening of the curtain to support entrepreneurship education. This chapter focuses on optimizing the management of innovation and entrepreneurship education in colleges and universities.

3.2.1 Establishment of Teaching Evaluation System of Innovation and Entrepreneurship Education Based on Neural Network

The objective and scientific all-round evaluation index system ensures the scientificity, fairness, and standardization of the evaluation of innovation and entrepreneurship teaching quality[1]. It is necessary to design reasonable indicators and options and to reflect the typicality, objectivity, and accessibility of indicators. When the indicators are accessible, teachers' motivation for improvement will be stimulated. In contrast, unreasonable indicators will directly distort the teaching evaluation, which no longer has the value of inspiring and guiding teachers to engage in innovative and entrepreneurial education. The evaluation index system of creative and entrepreneurial teaching ability is shown in Figure 1.



Figure 1: Evaluation index system of innovation and entrepreneurship teaching ability.

In evaluating innovation and entrepreneurship education with complex evaluation indicators and a combination of qualitative and quantitative evaluation, the introduction of NN evaluation can deal with multiple complex indicator data, find the shortcomings and problems in the learning process in a timely manner, and make timely improvements. Innovation is an essential way for college students to realize their self-worth. They integrate into society and make contributions to society by giving

full play to their special skills. More and more college students' success in starting a business has dramatically improved the employment rate of college students and has also encouraged hesitant entrepreneurs. In primary general education, publish entrepreneurial knowledge, industry trends, and typical entrepreneurial cases.

Regarding ability improvement training, Only when the indicators are accessible can teachers be motivated to improve.

In contrast, unreasonable indicators will directly distort the teaching evaluation and no longer have the value of inspiring and guiding teachers to engage in innovation and entrepreneurship education. In terms of business incubation support, it publishes information such as fund declaration, college students' entrepreneurial projects and product promotion, site application, tutor docking, preferential policies, relevant formalities, learning ability, adaptability, fault tolerance, nonlocality, and nonlinearity in information processing to obtain ideal actual output and evaluation results [3]. This paper establishes a comprehensive evaluation model for innovation and entrepreneurship education in tertiary institutions. The evaluation model is:

$$A = \sum_{i=1}^n W \cdot B \quad (1)$$

A is the comprehensive evaluation value, W is the index weight and B is the index value.

Secondly, the optimal transfer matrix of judgment matrix C is calculated, where:

$$d_{ij} = \frac{1}{m} \sum_{k=1}^m (c_{ik} + c_{kj}) \quad (2)$$

Use exponential function to construct consistency judgment matrix, where:

$$a_{ij} = \exp(d_{ij}) \quad (3)$$

Calculate the relative weight value W_{ij} of each index

$$w_{ij} = \frac{\bar{w}_{ij}}{\sum_{i=1}^m w_{ij}} \quad (4)$$

Through the above formula, calculate the index weight and then calculate the comprehensive evaluation value according to formula (1).

It shows that the evaluation index system and NN model of teachers' innovation and entrepreneurship teaching are effective. The NN has learned the evaluation thinking of experts well, can directly evaluate future teaching data, and can efficiently assess other innovative and entrepreneurship teaching teachers [17].

3.2.2 Improve the Evaluation Method of Innovation and Entrepreneurship Education in Institutions of Tertiary Education

The evaluation of innovation and entrepreneurship education in institutions of higher learning is a complex nonlinear system, with many influencing factors and close relationships among them. The neural network evaluation model has strong applicability and superiority, but the traditional algorithm has a complex process and slow convergence speed, affecting the evaluation efficiency and accuracy. The graduates of secondary vocational schools who are at a disadvantage in employment face more severe employment pressure. When faced with the more tense domestic employment situation, teachers can only do a good job when the indicators are accessible, and they can be motivated to improve. In contrast, unreasonable indicators will directly distort the teaching evaluation and no longer have the value of inspiring and guiding teachers to engage in innovation

and entrepreneurship education. Helpful to further stimulate mass entrepreneurship and innovation, optimize the employment structure, and combine entrepreneurship and employment to become the backbone of stable economic and social sustainable development[24]. However, having particular practical experience is essential because entrepreneurial practice needs interdisciplinary knowledge such as enterprise management, financial management, and marketing as the foundation.

In contrast, the core nodes in the employment service department have better coverage and higher recognition for fresh graduates and students. The effect evaluation of entrepreneurship education contains three meanings: first, the evaluation is an objective description of the results of entrepreneurship education; Secondly, the evaluation not only focuses on the description of achievements but also the objective description of the implementation process of entrepreneurship education; Third, evaluation is a value judgment based on basic facts, and the value judgment is consistent with the expected objective requirements [24],[16]. Although the NN model can overcome the time-varying and complexity of parameters and improve the accuracy of evaluating problems with intense subjectivity, its stability is poor, its convergence speed is slow, and it often falls into the dilemma of not realizing global optimization. The steps of NN evaluation are shown in Figure 2.

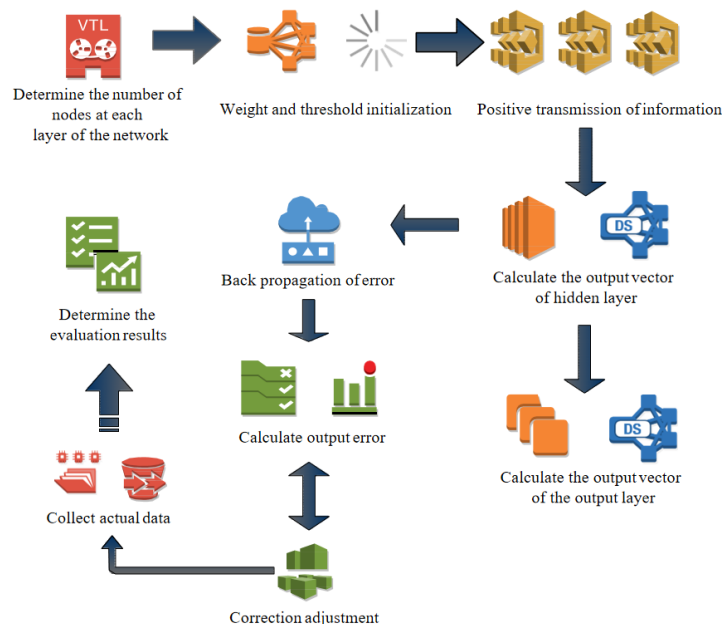


Figure 2: Educational management based on NN innovation and entrepreneurship system framework in colleges and universities.

Under the mechanism of innovation and entrepreneurship education in institutions of tertiary education. The NN can adjust itself and explore each index's logical relationship and weight attribute. This feature is based on the feedback mechanism between neurons in the model, which can avoid human interference, and the self-adaptive feature of NN can find the rules among disordered data so it can handle arbitrary data in theory. These factors include students' satisfaction with entrepreneurship education in institutions of tertiary education, teachers' strength in institutions of tertiary education, and the support provided by institutions of tertiary education for students' entrepreneurship, which lays a good foundation for future employment and development. Set up a

three-layer NN, set the number of input layer units, set the number of hidden layer units to 1, and set the number of output layer units to 1. The output of the middle layer unit is:

$$h_j = f(\sum_{i=0}^{N-1} V_{ij}) \quad (5)$$

Output layer unit output is:

$$y_k = f(\sum_{j=0}^{L-1} W_{jk} h_j) \quad (6)$$

Type function S , which is the excitation function, is adopted.

$$f(x) = \frac{1}{1+e^{-x}} \quad (7)$$

Compare the element d_k in the target vector with the element y_k in the output vector to get

$$\delta_k = (d_k - y_k)y_k \quad (8)$$

Calculate L error terms of hidden elements in the middle layer

$$\delta_j^* = h_j(1 - h_j)W_{jk} \quad (9)$$

Use the error term to calculate the adjustment amount of each layer's weight

$$\Delta W_{jk}(n) = [\alpha/(1 + L)] \quad (10)$$

$$\Delta V_{ij}(n) = [\alpha/(1 + N)] \quad (11)$$

Calculate the adjustment amount of the threshold

$$\Delta \alpha_k(n) = [\alpha/(1 + L)] \quad (12)$$

$$\Delta \beta_j(n) = [\alpha/(1 + L)] \quad (13)$$

According to the calculation, the value range is $1 \sim M$, and it is necessary to constantly judge whether its accuracy meets the condition of $E \leq \varepsilon$, where the total error E is:

$$E = \frac{1}{2} \sum_{k=0}^{M-1} d_k - y_k \quad (14)$$

When the operation results meet the conditions, the network training is completed, and the weights and thresholds of the training results will be automatically saved to the NN. At this time, the network model can be finalized. If the operation results do not meet the conditions, return and input the input vector to the network again, set a corresponding target output vector, and train the network. The evaluation system of innovative entrepreneurship education should embody the principle of operability. First, the indexes selected in the evaluation index system should have good operability. The content pointed out by the indicators must be specific and measurable. Suppose the chosen indicators are vague and unobservable. In that case, it will directly affect the evaluation of innovation and entrepreneurship education because of the inability to obtain real and effective information, set up elective courses of entrepreneurship, incorporate them into credit management, and improve the quality standards for cultivating innovative and entrepreneurial talents; At present, most of the faculty members in Chinese institution of tertiary education are employment instructors, student affairs administrators, and student administrators in various departments. They are juniors in the knowledge reserve and practical experience of innovation and entrepreneurship and do not have a complete understanding of the curriculum, strengthen teacher training and introduction, increase government support and guarantee, deepen school-enterprise cooperation, build a collaborative

education mechanism, integrate resources inside and outside the school, and promote complementary advantages of resources.

4 ANALYSIS AND DISCUSSION OF RESULTS

The effect evaluation of entrepreneurship education includes three meanings: first, the evaluation is an objective description of the achievements of entrepreneurship education; Secondly, the evaluation not only focuses on the description of achievements but also on the objective description of the implementation process of entrepreneurship education; Third, evaluation is a value judgment based on basic facts, and the value judgment is consistent with the expected target requirements, local governments, colleges, students and enterprises must establish a cooperative mechanism and give full play to their respective roles. It can be conducted by introducing experts from different disciplines in schools, enterprise experts, and government personnel to score under the guidance of the evaluation criteria of the constructed evaluation index system. Conducted in-depth analysis of entrepreneurial activities in 10 regions by sampling and analyzing. Starting from the three elements of entrepreneurial motivation, skills, opportunities, and their interrelationships, they built a policy framework for innovation and entrepreneurship education focusing on five aspects: entrepreneurial environment, entrepreneurial support, entrepreneurial financing, entrepreneurial promotion, and target group strategy. The experimental results are shown in Figure 3.

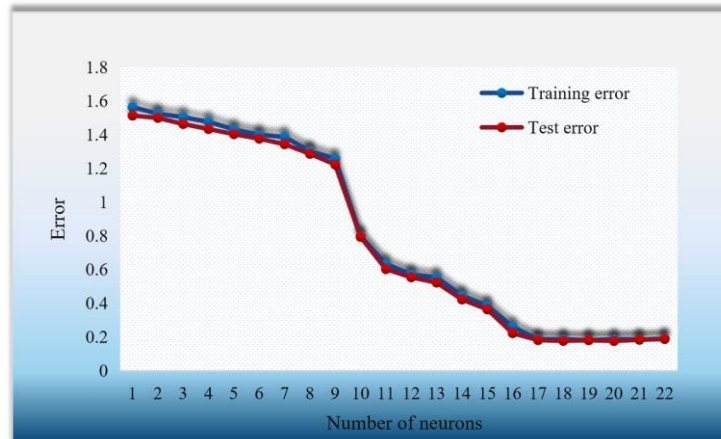


Figure 3: Relationship between the number of neurons in the hidden layer and error.

The test error fluctuates when the values are 10, 11, 12, 13, 14, 15, or 16, and the number of neurons in the hidden layer is 15, which is the best choice. In this paper, the input data of NN evaluation are shown in Table 1 and the evaluation results are shown in Table 2.

Parameter	Sample					
	1	2	3	4	5	6
x_1	0.94	0.94	0.66	0.88	0.85	0.93
x_2	0.95	0.86	0.55	0.88	0.85	0.88
x_3	0.97	0.86	0.62	0.97	0.71	0.81
x_4	0.91	0.95	0.66	0.96	0.73	0.85

Table 1: Standardized Input Data.

<i>Evaluation method</i>	<i>Sample</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>Expert evaluation results</i>	<i>0.813</i>	<i>0.761</i>	<i>0.920</i>	<i>0.731</i>	<i>0.623</i>	<i>0.791</i>
<i>Network evaluation results</i>	<i>0.811</i>	<i>0.763</i>	<i>0.924</i>	<i>0.728</i>	<i>0.624</i>	<i>0.788</i>
<i>Error</i>	<i>0.001</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>

Table 2: Evaluation results of NN and experts.

After the input data is standardized, Table 1 is obtained. The standardized input data is input into the training process of the constructed NN for learning and training. The specific data is set according to the above formula using software functions and then trained to obtain the prepared data, the network evaluation data in the table. See Table 2 for the comparison between the calculation and expert evaluation results. The expert evaluation data in the table is obtained by the school organizing experts to evaluate the innovation and entrepreneurship teaching ability of 14 teachers in the school according to the secondary indicators. It can be seen from the data in Table 2 that the error value between the results evaluated by NN and those assessed by experts meets the set requirements, and the calculated results are acceptable.

After the neural network training is completed, the comparison between the actual and expected value of the network output is shown in Figure 4. After training, the actual value of NN is consistent with the expected value, except for the local fluctuations at the 6th, 7th, 8th, 9th, and 10th serial numbers, which are also within the acceptable range.

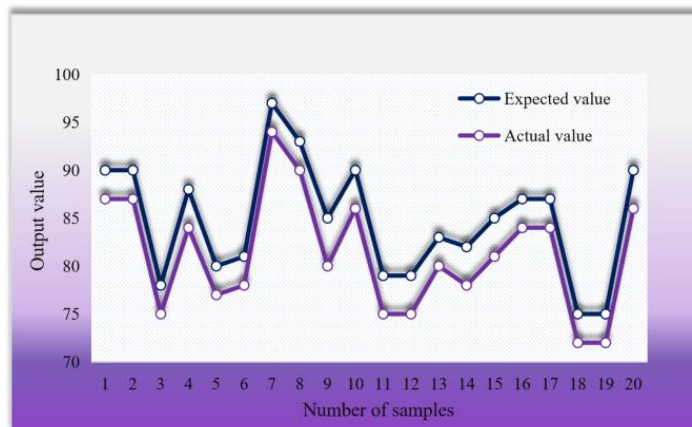


Figure 4: Comparison between the actual and expected values predicted by NN.

Through the analysis of Figure 5, the changes brought to university students after carrying out innovation and entrepreneurship activities are as follows: 38.04% of them have mastered the professional knowledge of mass entrepreneurship and innovation; The respondents accounted for 69.96% and 60.69%, respectively for the two options of obtaining honors and scholarships and obtaining innovation and entrepreneurship funds and subsidies. Although it shows that university students are still deeply affected by exam-oriented education, the quality of entrepreneurs is 30.79%.

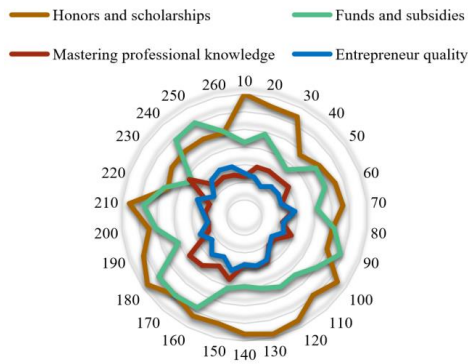


Figure 5: Impact on students after innovation and entrepreneurship activities in tertiary education institutions.

It can be seen that although the practicality of innovation and entrepreneurship education has achieved phased results, it is believed that entrepreneurs' entrepreneurial practice activities will be regulated and restricted by entrepreneurial policies. The results of local culture, political system, and social system will directly or indirectly impact the innovative and entrepreneurial practice environment.

Innovative activities are in full swing, which sharply contrasts with the current university students' low willingness to start a business after graduation and their wait-and-see attitude toward starting a business. After weighing the opportunity cost of self-employment, university students often dare not easily incorporate entrepreneurship into their career planning. To explore the degree of connection between innovation and entrepreneurial activities and university students' employment, we set up the test questions of university students' employment intention after graduation. After investigation, we got the following four results: entering a higher school (A), government and institutions (B), large and medium-sized enterprises (C), and going abroad (D). So after the above four results, we started the experiment, and the experimental results are shown in Figure 6.

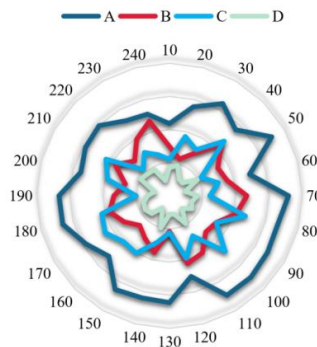


Figure 6: Employment intention of university students after graduation.

It can be found that 35.86% of the respondents went to higher education and 23.32% of the respondents from government and public institutions accounted for a large proportion, which can reflect the difficulty in social employment, and 23.73% of the respondents from large and medium-

sized enterprises are more likely to go to well-known companies or Internet companies with good salaries and commercial banks with considerable salaries; A small proportion of 10.02% went abroad. This shows that innovation and entrepreneurship should not only be used as a means or tool to express themselves in college but also become the habit and attitude of students to form continuous innovation and creation after graduation.

Although tertiary education institutions actively raise funds, government appropriations are the primary source. Institution of tertiary education should accept government management and overall fund arrangement. Financial institutions provide qualified university students with fast financing services and sufficient funds for innovation and entrepreneurship education. The experimental results of understanding the source of innovation and entrepreneurship funds through the survey setting questions are shown in Figure 7.

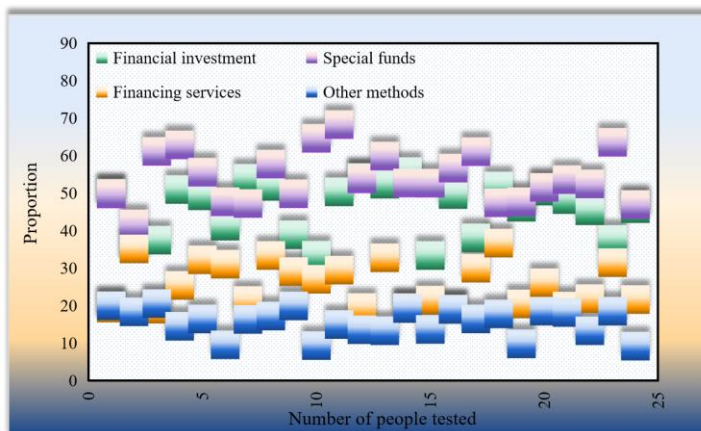


Figure 7: Sources of university students' innovative and entrepreneurial capital.

As can be seen from Figure 7, 55.73% of financial funds are invested, 64.62% of special funds are for institutions of tertiary education, 36.66% for financial institutions' financing services, and 20.55% for other ways. It shows that investment from the government and universities is still the primary funding source. The government and universities are currently willing to invest in innovation and entrepreneurship education. The critical reason for the poor implementation effect of innovation and entrepreneurship education policy in universities is that they have not yet made good use of funds to invest in innovation and entrepreneurship projects with high survival rates.

5 CONCLUSIONS

It is of great significance for national construction, scientific and technological progress, easing employment pressure, and the survival and development of tertiary education institutions. This paper conducts research on the innovation and entrepreneurship of education management institutions of tertiary education based on NN and constructs an evaluation system. This shows that innovation and entrepreneurship should not only be used as a means or tool to express themselves in college but also become the habit and attitude of students to form continuous innovation and creation after graduation. Determine the evaluation model of innovation and entrepreneurship education. Based on the analysis of NN, professional knowledge and skills, participation in national competitions and centralized entrepreneurship training camps profoundly impact students' innovation and entrepreneurship ability. The evaluation system built in this paper is just a theoretical model. Integrating neural networks into evaluating e-learning innovations for entrepreneurial

education management represents a significant step forward. It not only harnesses the power of data to optimize educational strategies but also fosters an environment that nurtures aspiring entrepreneurs, equipping them with tailored resources and support for success in the entrepreneurial realm. This approach aligns education with industry demands, empowering future innovators and contributing to a thriving entrepreneurial ecosystem.

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