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Retraction

Retracted: Exploring the Fuzzy Integrated Assessment of College Students' Education for Innovative Entrepreneurship under the Background of Internet+

Security and Communication Networks

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Security and Communication Networks has retracted the article titled "Exploring the Fuzzy Integrated Assessment of College Students' Education for Innovative Entrepreneurship under the Background of Internet+" [1] due to concerns that the peer review process has been compromised.

Following an investigation conducted by the Hindawi Research Integrity team [2], significant concerns were identified with the peer reviewers assigned to this article; the investigation has concluded that the peer review process was compromised. We therefore can no longer trust the peer review process, and the article is being retracted with the agreement of the Chief Editor.

The authors do not agree to the retraction.

References

[1] M. Luo, L. Zhao, and B. Lyu, "Exploring the Fuzzy Integrated Assessment of College Students' Education for Innovative Entrepreneurship under the Background of Internet+," *Security and Communication Networks*, vol. 2022, Article ID 4339772, 12 pages, 2022.

[2] L. Ferguson, "Advancing Research Integrity Collaboratively and with Vigour," 2022, https://www.hindawi.com/post/advancing-research-integrity-collaboratively-and-vigour/.

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Research Article

Exploring the Fuzzy Integrated Assessment of College Students' Education for Innovative Entrepreneurship under the Background of Internet+

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Entrepreneurial role models are the forerunners on the path to entrepreneurship for college students, and they play a significant role in influencing college students' entrepreneurship decisions. Entrepreneurship education in schools is an important tool for college students to develop entrepreneurial knowledge, ingenuity, and abilities. The main approach of building fuzzy systems is fuzzy integrated assessment, and it has a broad range of applications, including expert evaluation systems, quality control, performance assessment, weather forecasting, medical diagnosis, economic management, and psychological measurement. This research designs a fuzzy integrated evaluation system of university students' entrepreneurial education using the environment, teaching process, and instructors' team as the first-level indicators on the premise of defining the connotation of inventive and entrepreneurial skills. The article also uses the fuzzy integrated assessment method to conduct an empirical study and proposes countermeasures for the quality of innovative and entrepreneurial talents cultivation in terms of creating a good innovation environment in universities and encouraging students to actively participate in various innovative and entrepreneurial activities. The experimental results show that the half confidence of the fuzzy integrated assessment algorithm is 0.657, the retest confidence is 0.991, and the standard deviation of the α coefficient among all the test subjects is 0.683, which indicates that it has good confidence. Therefore, the fuzzy integrated assessment method of college students' entrepreneurial education in this study is a combination of quantitative and qualitative methods, which expresses and processes the subjective judgment of human in quantitative form, minimizes the drawbacks brought by personal subjective judgment, and makes the evaluation results more credible.

1. Introduction

In today's competitive and innovative society, the country's socioeconomic development is increasingly dependent on innovative talents and innovative enterprises in various industries [1]. At the same time, the Ministry of Education has also clearly stated that students' experiences and achievements in entrepreneurial education, social practice, and other activities can be converted into credits and counted as academic grades [2]. Under the role of Internet, traditional industries have undergone profound changes and new industries are emerging, and the upgrading of industries has brought about higher requirements for the quality of talents [3]. The videoconference of the Ministry of Education on deepening the reform of entrepreneurial education in higher education emphasized that "we should take deepening the reform of entrepreneurship education at schools as a breakthrough to promote the comprehensive reform of higher education" [4]. Therefore, strengthening innovation and entrepreneurship practice, improving the teaching ability of teachers in entrepreneurship education, and building entrepreneurship environment at schools are important tasks for Chinese universities at present and in the next stage [5].

Faced with the issue that the number of college students employed is growing while the number of jobs available is shrinking, the state and government have recommended to "insist that innovation leads to entrepreneurship and entrepreneurship fosters employment" [6]. In addition, we are working hard to create a new system that will allow us to adjust the structure of academic disciplines and training types based on demand, promoting talent development, economic and social development, and realizing the seamless connection between entrepreneurship and job demand [7]. The development of the Internet has also made the mobility of knowledge and information freer and more accessible, providing more elements and conditions for the implementation of innovative ideas [8]. At present, the research on entrepreneurial education of students mainly focuses on the cultivation of innovation ability of college students, and most of them are limited to qualitative research, and the research on the evaluation of specific college students' innovation projects is not deep enough [9]. For this reason, based on the Internet platform and mobile communication network technology, universities have more favorable conditions to provide students with high-quality entrepreneurial education [10]. The current evaluation method of filling out paper evaluation forms is inefficient, and the use of computer systems for teaching evaluation can greatly reduce the amount of statistical work in teaching evaluation, make it easier and faster, and be suitable for statistical analysis of large samples [11].

At present, the campus network of Xinke Senior High School has covered the whole school, and the use of the network for office work has become popular, so the use of the network for teacher evaluation has also become a development trend [12]. The traditional evaluation method usually uses the expert scoring method, which is too rough and simple for processing evaluation information [13]. It is difficult to ensure the objectivity and accuracy of evaluation results because it does not take into account the vagueness of human thinking and uncertainty of objective things [14]. Fuzzy integrated assessment method is a comprehensive evaluation method based on fuzzy mathematics [15]. If it is possible to analyze the indicators themselves, find the relationship between them, and transform a large number of indicators, through the key between them, into a small number of new indicators, and then analyze them, it will reduce the workload and greatly improve the efficiency. Therefore, the design and implementation of the evaluation system based on fuzzy evaluation algorithm, combined with the current excellent system platform of computers, using fuzzy mathematical theory, is of great practical significance for the current teaching quality evaluation.

The innovation points of this study are as follows:

(1) Starting from the background of the era of "Internet+," this study puts forward the problems in the entrepreneurship education mode of college students by analyzing the current situation of the current entrepreneurship education mode of college students. Then, combining with the background of the era of rapid development of information technology and fuzzy integrated assessment, we propose the fuzzy integrated assessment of college students' entrepreneurial education in the background of Internet+.

(2) It presents beneficial suggestions for optimizing entrepreneurship education at universities around the growth of the Internet sector, based on the backdrop of national entrepreneurship and innovation in the age of "Internet+."

(3) In entrepreneurship education, we should strengthen students' entrepreneurial skills training during their school years, bridge the two stages of graduation internship and employment, and achieve a seamless transition between internship and entrepreneurship.

The research framework of this study consists of five main parts, which are organized as follows:

The first part introduces the research background and significance in this study, and then introduces the main work of this study. The second part introduces the work related to the entrepreneurial education of students under the background of Internet+ and the fuzzy integrated assessment. In the third part, the method of determining factor weights of fuzzy integrated assessment and the application method of fuzzy integrated assessment in entrepreneurial education are sorted out, so that readers of this article can have a more comprehensive understanding of the idea of fuzzy integrated assessment of college students' entrepreneurial education under the Internet+. The fourth part is the core of the thesis, from the analysis of the improvement in fuzzy integrated assessment algorithm and the analysis of the perturbed fuzzy integrated assessment algorithm, to complete the description of the application analysis of fuzzy integrated assessment in entrepreneurial education under the Internet+. The last part of the thesis is the summary of the whole work.

2. Related Work

2.1. Entrepreneurial Education under Internet+. With the arrival of "Internet+" era, the employment situation of college students has changed profoundly. In the face of diversified and diverse employment choices, how to carry out entrepreneurship education for students scientifically and effectively is a new issue that should be further studied by colleges. In response to the call of the state, colleges at all levels are making efforts to solve the employment problems of college graduates, building innovative and entrepreneurial education models one after another, and constantly updating and improving the innovative and entrepreneurial education system. In the era of "Internet+," entrepreneurship has the advantages of openness and low cost, so universities should give full play to the role of "Internet+" and continuously innovate the entrepreneurship education model for college students.

Varblane and Mets investigated entrepreneurship issues among students and developed an index system to assess students' entrepreneurship and innovation abilities in terms of knowledge reserve, thinking optimization, learning ability, and research innovation [16]. According to Hyclak and Barakat, entrepreneurship goes "beyond business

creation" to include all forms and stages of firms and organizations, and is a way of thinking, reasoning, and acting as well as creating, enhancing, and realizing value [17]. Ai proposed an evaluation index of students' innovation ability including entrepreneurial consciousness, entrepreneurial quality, entrepreneurial knowledge, and entrepreneurial skills to provide a reference for the evaluation of students' innovation and entrepreneurial ability cultivation performance [18]. Martin et al. considered entrepreneurship education as helping entrepreneurs to select entrepreneurial projects according to their psychological and physiological characteristics, so that they can successfully achieve their entrepreneurial goals and start their own businesses [19]. Akpochafo et al. used the ideal solution method in decision analysis to rank and evaluate projects [20].

In the era of "mass entrepreneurship and innovation," entrepreneurship education, as an interdisciplinary, highly comprehensive, and practical education, has gradually received the attention of the society. Therefore, the entrepreneurial education of students in the background of Internet+ has made a study and judgment on college students' entrepreneurial projects, which can help them to join the entrepreneurial market with correct values, moral standards, and behavioral norms; enhance their ability to adapt to the market mechanism; provide them with accurate entrepreneurial resources and market situation; and pave the way to realize their successful entrepreneurship.

2.2. Fuzzy Integrated Assessment. As a new normal, "Internet+" is conducive to giving full play to the configuration optimization and integration of the Internet and realizing the organic integration of "Internet+" innovation achievements and various fields of economy and society. Many local higher education institutions have offered entrepreneurial education courses, but there are problems of insufficient entrepreneurship experience, lack of innovation consciousness and entrepreneurial ability of entrepreneurship instructors, and the relevance and effectiveness of the courses are not strong, and the teaching effectiveness cannot be achieved by book knowledge alone. And fuzzy integrated assessment is an effective method to transform qualitative evaluation, which is constrained by many factors, into quantitative evaluation.

Millman et al. [21] employed the fuzzy integrated assessment approach to test the efficiency of this evaluation system for assessing the quality of instructors' classroom instruction in higher education institutions. Behboudi et al. suggested that fuzzy integrated evaluation may offer a suitable overall assessment by integrating the strengths and weaknesses of each indication of each characteristic, which is useful for many nondeterministic, fuzzy, and difficult to quantify issues in statistics [22]. Bureau et al. looked at ways to tweak the fuzzy integrated evaluation technique to get a more accurate assessment of the evaluation object in the issue domain. Bureau et al. looked at ways to increase the feasibility of fuzzy integrated evaluations applied to particular issue domains and guarantee that the assessment findings are reliable [23]. Zhao et al. determined the index weights with the help of the theory of information entropy and correct the subjective weights of indicators to establish a fuzzy synthesis evaluation model based on information entropy [24]. Li and Zhou proposed a networked teaching evaluation model based on fuzzy synthesis, and designed a complete index system and evaluation scheme by determining the evaluation index system [25].

Therefore, consider entrepreneurial education at schools as a system involving multiple subjects consisting of government, colleges and universities, enterprises, and college students, by constructing an evaluation index system of entrepreneurial education performance, using fuzzy synthesis evaluation method, and conducting empirical research on its performance, and analyze based on the empirical results, in order to provide objective and scientific decision-making basis for improving the performance of entrepreneurial education in colleges.

3. Fuzzy Integrated Assessment of College Students' Entrepreneurial Education in Internet+

3.1. Method for Determining Factor Weight of Fuzzy Integrated Assessment. Innovative and entrepreneurial talents at schools are to cultivate college students into talents who have creative thinking and innovative consciousness but have the ability to use their learned innovative skills to start a certain career [26]. Enterprise production, R&D, and marketing processes have been realized online and distributed, and both production and after-sales service methods have changed [27]. It inevitably brings the disappearance of some traditional technical positions, which requires college students to accurately grasp the development of the Internet economy, reposition their career goals, and design their career goals effectively [28]. Fuzzy integrated assessment has the characteristics of clear and systematic results, which can better make a reasonable comprehensive evaluation of the problem of "clear connotation but unclear extension." To calculate the proportion of a relative indicator value in the sample under the same indicator:

$$p_{kj} = \frac{x_{kij}}{\sum_{k=1}^{r} x_{kij}}. \tag{1}$$

Therefore, in order to reasonably distinguish the importance of different factors in the evaluation, it is necessary to set the weight value of each evaluation factor according to our concern about the factor, so that the more concerned evaluation factors have more influence on the result in the final evaluation result. The promotion of entrepreneurial education reform for university students is a massive project including the state, family, school, and society to educate people, and the framework model of entrepreneurial education at schools is represented in Figure 1.

First of all, the specific evaluation factors of teaching quality should be analyzed. Performance evaluation of entrepreneurial education at schools is a subjective evaluation, because there is no absolutely clear boundary between

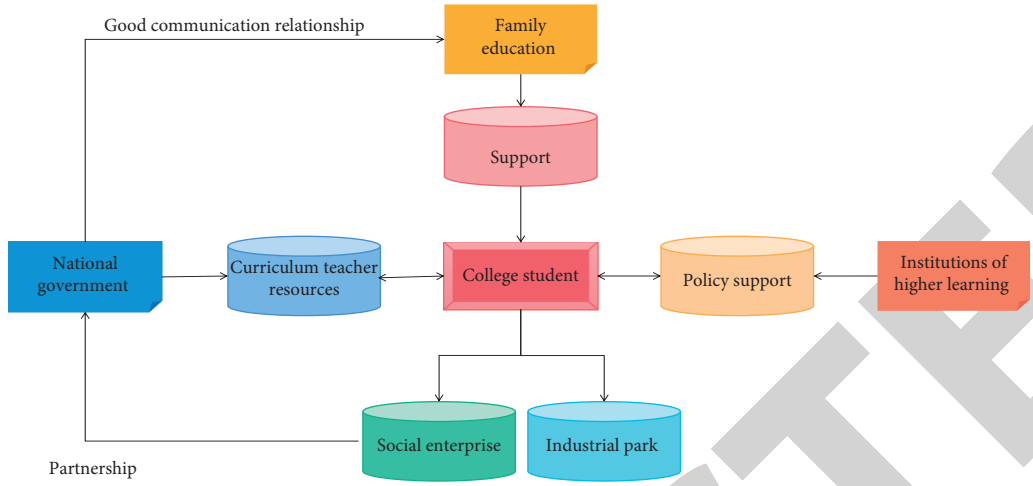

Figure 1: Framework model of entrepreneurial education in colleges.

"high" and "not high" performance level. Instead, there are many, even infinite, intermediate states, which can only be described qualitatively and cannot be expressed precisely by quantitative methods. The steps of the algorithm for determining the factor weights of fuzzy integrated assessment are shown in Figure 2.

The performance of entrepreneurial education is a concept with ambiguous characteristics [29]. Therefore, according to the different characteristics and talent cultivation modes of universities at all levels, we should choose diversified curriculum contents, teaching methods, and teaching places with the ultimate goal of improving the entrepreneurship ability of students. In short, it is necessary to teach in a diversified way in the process of entrepreneurial education according to the students' abilities. In addition, the weight value of a certain evaluation factor is not unchanging, as people may not care too much about the issues they used to care about, so the weight value can be changed, mainly according to people's actual needs. Calculate the entropy value e_j of the jth explicit indicator under the ith indicator, which reflects the amount of information of the indicator in the sample classification:

$$e_j = -\frac{1}{\ln(r)} \sum_{k=1}^{r} p_{kj} \ln\left(p_{ij}\right). \tag{2}$$

Find the weights of all detailed indicators under the ith indicator

$$W_j = \frac{d_j}{\sum_{j=1}^{m} d_j} = \frac{1 - e_j}{m - \sum_{j=1}^{m} e_j}. \tag{3}$$

Second, the proportion of the weight of each evaluation factor is set in its overall evaluation process. Therefore, the teaching of courses related to entrepreneurial education at schools should follow the principle of systematic teaching, and should be gradual and student-centered, activity-centered, and experience-centered. Students at universities acquire relevant theoretical knowledge via the availability of tools and venues enabling them to practice, successfully merging theory and practice. Each element in a factor set, in general, has a varied influence on the object being assessed, hence each factor has its own significance assignment, also known as weight assignment. In order to avoid the bias arising purely from the use of subjective weights of indicators given by experts in the problem domain, the objective weights W_j obtained using information entropy are corrected for the subjective estimated weights θ_j.

$$W_j' = \frac{\theta_j W_j}{\sum_{j=1}^{m} \theta_j W_j}. \tag{4}$$

After completing the calculation of the weight vector of an element of a layer under the criterion relative to an element of the previous layer, the last is for the synthetic weight of each element relative to the total target layer, and let the ranking weight vector of the $k-1$ elements of the $K-1$th layer relative to the target layer be

$$\omega^{(k-1)} = \left(\omega_1^{(k-1)}, \omega_2^{(k-1)}, \ldots, \omega_{k-1}^{(k-1)}\right). \tag{5}$$

In addition, college teachers need to change their teaching concept in time, understand the purpose and meaning of entrepreneurial education for students, correct the teaching attitude of entrepreneurial education for college students, be good at mining educational materials, and reasonably design the content of each course and practical practice. It is easy to make a decision on something determined by a single factor, but when multiple factors are involved, it is critical to consider the influence of many factors to make a decision close to reality and avoid the one-sidedness brought by judging from only one factor.

3.2. Application Method of Fuzzy Integrated Assessment in Entrepreneurial Education. The advent of the "Internet+" era has not only caused changes in traditional industries, but also made it difficult for students to choose a career according to the traditional way of thinking [30]. The development of innovative entrepreneurship education needs support at the theoretical level, mainly because students are able to connect theory with practice, combine

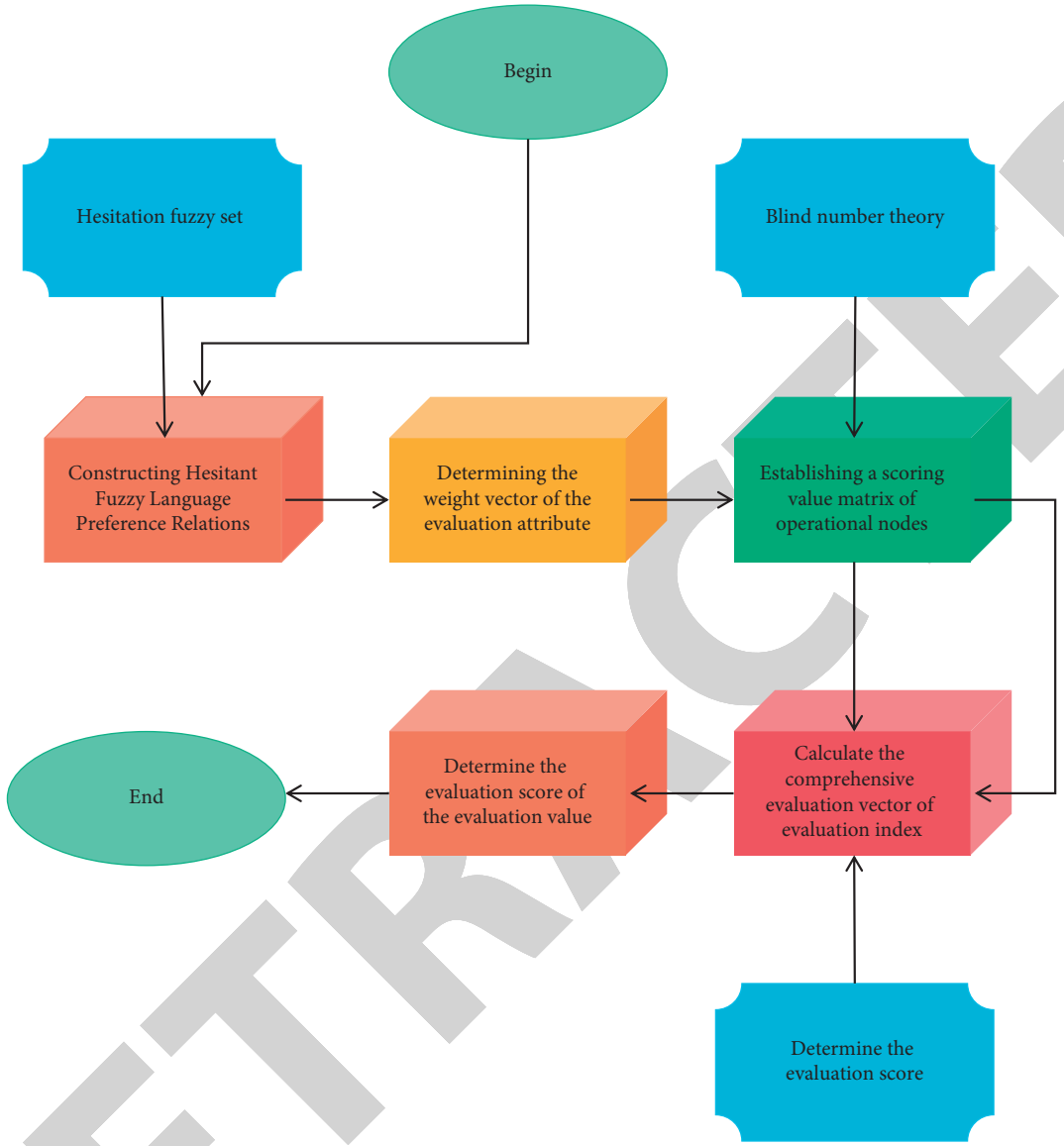

Figure 2: Algorithm for determining factor weight of fuzzy integrated assessment.

direct and indirect experience, and innovate and create in the process of practice. The amount of information contained in different evaluation factors in the evaluation system is different, and the amount of information will directly determine the high weight of the evaluation factors. Due to the different types of information carried by the set indicators, each indicator subsystem and specific indicator items play different degrees in the process of describing a social phenomenon or social condition. Therefore, the comprehensive index value is not equal to the simple sum of the sub-indicators, but a weighted summation relationship, that is

$$S = \sum_{i=1}^{n} w_i f_i(I_i), \quad i = 1, 2, \ldots, n, \tag{6}$$

where $f_i(I_i)$ refers to some measures of I_i and $w_i$is the weight value of each index.

Fuzzy integrated assessment uses the concept of affiliation in fuzzy mathematics to quantify the specific evaluation process, that is it uses fuzzy mathematical methods to evaluate different evaluation factors subject to different evaluation subjects as a whole. The application method of fuzzy integrated assessment in entrepreneurial education can solve the fuzzy and difficult to quantify problems, and in a fuzzy environment, it can systematically analyze things or objects with multiple factors influencing them, and give a clear overall evaluation. The overall process of fuzzy integrated assessment is shown in Figure 3.

First of all, the index system and rubric set are established. The performance evaluation of entrepreneurial education involves many factors, so it is key to consider the influence of all factors and establish a scientific and reasonable evaluation index system, so as to make the evaluation process more comprehensive and reasonable. The decision makers also need to determine the weight value of

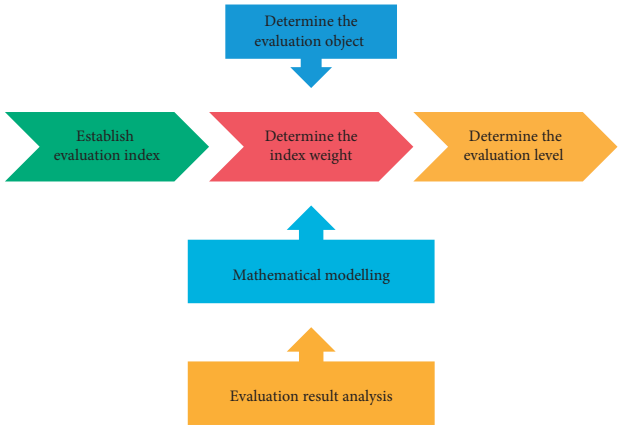

Figure 3: Overall flow chart of fuzzy integrated assessment.

the factors associated with the criterion level in relation to the target-level factors. Finally, the assembled results are converted into 1~9 scales according to the inverse transformation.

$$\begin{cases} F(x) = \dfrac{1}{x+1}, x \in \{0, 1, 2 \ldots 7, 8\}, \\ \\ F = -x + 1, x \in \{-2, -3, -4, \ldots, -7, -8\}. \end{cases} \tag{7}$$

It is crucial to remember that individuals synthesize things in various ways. Attempting to give certain absolute values to various cross-sectional issues as evaluation views in an assessment can result in inconsistency in evaluation opinions by the same evaluator owing to the difficulty in recognizing distinctions between values throughout the evaluation process. Different procedures may be used to actualize each of these scenarios. Next, the evaluation affiliation matrix under each secondary index is constructed. Its core is to quantify the empirical judgment of decision makers, so as to provide decision makers with a reference basis for decision-making expressed in quantitative form. It is especially suitable for situations where the structure of multi-objective factors is complex, the necessary data are lacking, and the empirical judgment needs to be quantified. For the set of comments determined in the requirement analysis, it is also necessary to determine the value of each rating level and obtain the arithmetic formula, so as to obtain the evaluation fuzzy evaluation method model. The evaluation vector B_j is used to construct the evaluation matrix of the upper-level indicators, which in turn leads to the evaluation vector of the higher level indicators:

$$Z = A_a R = \{W_{a1}, W_{a2}, \ldots, W_{an}\} \cdot \begin{Bmatrix} B_1 \\ B_2 \\ \cdots \\ B_n \end{Bmatrix}. \tag{8}$$

The basis or source of the assignment of the ratio of the elements of the judgment matrix to the relative importance of an evaluation objective can be provided directly by the decision maker, determined by the decision maker in dialogue with the analyst, obtained by the analyst through various technical consultations, or by other appropriate means at the discretion of the analyst. Geometric averaging of the row vectors of the judgment matrix is performed followed by normalization. First, the product operation is performed on the elements of each row of the judgment, that is

$$Mi = \left(\prod_{j=1}^{n} a_{ij} \right) \frac{1}{n}. \tag{9}$$

The complexity of the problem and the level of detail required for analysis determine the number of levels in the recursive hierarchy model. Therefore, for this kind of nonconsistent judgment matrix, in order to ensure the credibility and accuracy of its results, it is also necessary to conduct consistency tests on its judgment matrix. Generally, the number of levels is not limited, and the number of elements dominated by each element in each level should not exceed 10. This is because too many dominant elements will make it difficult to compare two judgments.

Finally, the set of secondary evaluation results is assembled by using index weights. That is, the factor set of the evaluation object should be determined, then the hierarchical domain of the comprehensive evaluation should be determined, the weights of the evaluation indexes should be determined by using hierarchical analysis, the single-factor fuzzy integrated assessment matrix of each level should be determined by using the expert scoring method, and then the fuzzy relationship between the evaluation object and the evaluation set should be calculated. Due to the different knowledge level, structure, and knowledge of the experts, the credibility of the judgment matrix given by the hierarchical analysis method is not the same. Assuming that there are k experts, the expert weights are obtained using the following formula:

$$p_i = \frac{1}{1 + \partial C\ R_i} (i = 1, 2, L, k). \tag{10}$$

Due to incomplete consideration and loss of focus, when there are more factors affecting a factor, direct consideration of how much each factor affects that factor often leads the decision maker to provide data that are inconsistent with the degree of importance he actually believes, or even implies contradiction. Therefore, by organizing experts from the Student Affairs Office and teaching units to score the weight of each factor of the university's innovative and entrepreneurial talent training quality index system, the weights of each index factor were calculated after multiple rounds of scoring.

4. Application Analysis of Fuzzy Integrated Assessment in Entrepreneurial Education under Internet+

4.1. Improvement Analysis of Fuzzy Integrated Assessment Algorithm. Since the traditional fuzzy integrated assessment contains human subjective judgment when calculating the weights, it must be tested for consistency, and sometimes it

needs to be adjusted several times to pass the test, which inevitably destroys the objectivity and accuracy of the comprehensive evaluation to a certain extent. With the improved fuzzy integrated assessment algorithm, the consistency test of the judgment matrix is not required, which avoids the influence of human factors on the evaluation results. The calculation process of the improved fuzzy integrated assessment algorithm is basically the same as the factor analysis process, directly through the factor analysis algorithm to reduce and rename the original index. The results of the former process can be used as the input data for the latter process of comprehensive evaluation. From the whole calculation process, it can also be seen that the restructuring process, in fact, transforms a qualitative problem into a quantitative one and then solves it, and the intermediate transformation depends on the sample data. Therefore, the judgment result is a fuzzy vector instead of a point value, and the judgment result is unique to the evaluated object. The eigenvalue method is used to calculate the eigenvector and the maximum eigenroot of the judgment matrix in order to calculate the maximum eigenroot for the total target, taking the parameter values of 20, 40, and the corresponding eigenvector and eigenvalue pairs as shown in Figures 4 and 5.

First, whether single-factor or multi-factor, factor analysis was utilized to reorganize the chosen set of factors. It is also required to evaluate the link between consistency and the order of the matrix in order to generate a critical value for the consistency test that is relevant to judgment matrices of various orders. Assuming that there is only one sample in the extreme case, the common factor obtained by factor analysis of this sample represents the potential influence factor in the sample, and the scope of application is only for this sample, and the fuzzy integrated assessment results obtained by this common factor can only be used to evaluate this sample. Since there is still no unified standard for the separation, decomposition, and refinement of nonfunctional requirements, and the types of nonfunctional requirements vary from one type of system to another, there are differences in the final fuzzy integrated assessment results. Since the object of fuzzy integrated assessment is something with intermediate transition or both, its evaluation result should not be categorical, but can only be expressed by the affiliation degree of each level. Among the three factors that can have an impact on the total target, bandwidth, time delay, and movement speed, bandwidth is the most important one, followed by the requirement for movement speed and, finally, time delay. A comparison of the weights of bandwidth, time delay, and movement speed under different scheme numbers is shown in Figure 6.

Second, if you are not satisfied with the number of factors, you can choose to perform an orthogonal transformation or an oblique transformation on the common factors. The corresponding orthogonal factor solution or oblique factor solution is calculated and the term with too small contribution value of the variance of the end common factor is discarded. The larger the order of the judgment matrix, the more difficult it is to achieve consistency in the judgment ratio of two comparisons between elements. The comprehensive evaluation results in teaching and learning were also poor, which was mainly reflected in the relatively low penetration of entrepreneurship knowledge in the existing curriculum and the low offering rate of interdisciplinary courses.

Finally, through factor analysis, a large number of sample observations are used to obtain objective indicators that are independent of each other, excluding artificial interference factors. Each evaluation index is a metric that portrays the size of certain characteristics of the system from some side. The establishment of the evaluation index system depends on the specific evaluation problem. Sometimes it is even difficult for people to estimate the characteristics of the response by positive means, so it is often necessary to make the same response as a criterion and define the affiliation from the differences of multiple experiments to determine the affiliation function. A node with a large weight value but a small score value may not have a high final score after considering these two values together, that is, the node is not the one that should be selected. Therefore, only when the sample size meets the requirements can the results be evaluated more accurately, and only then can the results be representative and be used for a comprehensive comparison of a larger sample.

4.2. Analysis of Fuzzy Integrated Assessment Algorithm for Disturbance. The use of perturbed fuzzy integrated assessment algorithm helps students to check the information resources they need anytime and anywhere after class and keeps trying to explore new innovative and entrepreneurial ways. The basic processes of perturbed fuzzy comprehensive judgment are shown using an example of e-government performance review. The judgment process might be cyclical, and the fuzzy comprehensive judgment can be multilevel. If there are factors that play a dominant role in the evaluation factors, that is individual factors are heavily weighted, the main factor highlighting type model can be used. Perturbation fuzzy integrated assessment is a multi-evaluation factor and multi-evaluation method operation method, rather than only distinguish by good and bad. Therefore, the comparison of degrees of freedom and mean difference Levene variance under different factor weights is shown in Figure 7.

The initial proposed assessment factors were first given using a brainstorming method. The complex scoring system is hierarchical, and the importance of the various associated factors is compared level by level to provide a quantitative basis for the analysis and the final validity score. The set of evaluation factors is generally created based on the characteristics of the target audience and the criteria learned from the needs analysis. The expert will fill in the questionnaire with the opinions of all evaluation factors, that is the importance of the indicator. Generally expressed in numbers, and then according to the expert's professional level in the field to assign the authority coefficient that is the opinion weight, the expert's opinion and authority coefficient will be combined to get the weight vector corrected according to the level. For single-factor analysis, it basically means that the repetitive phenomena are not processed and

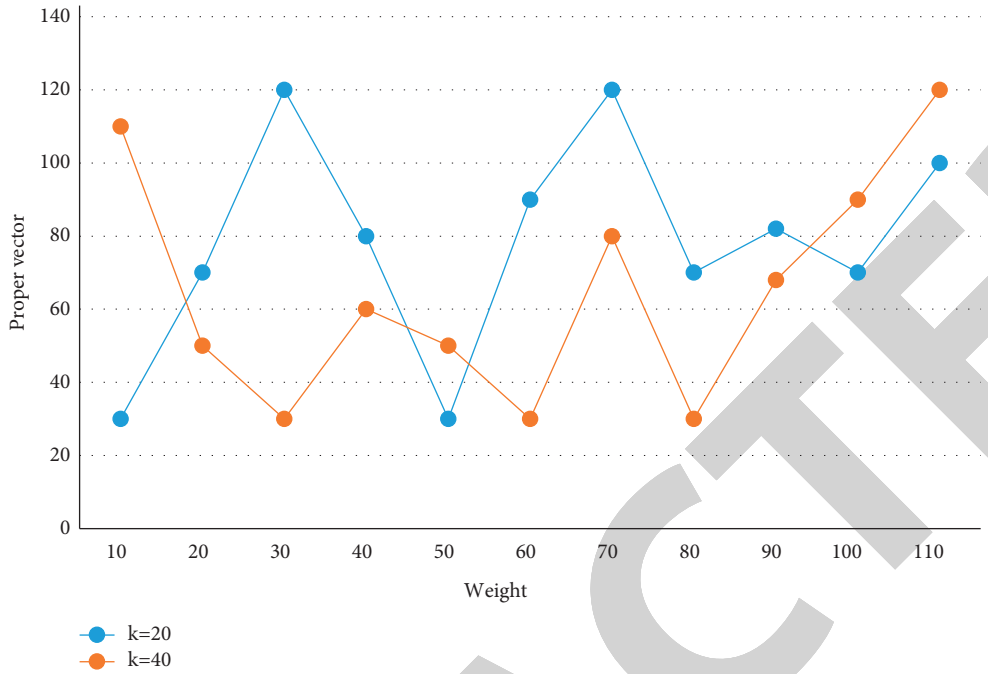

Figure 4: Comparison of feature vectors.

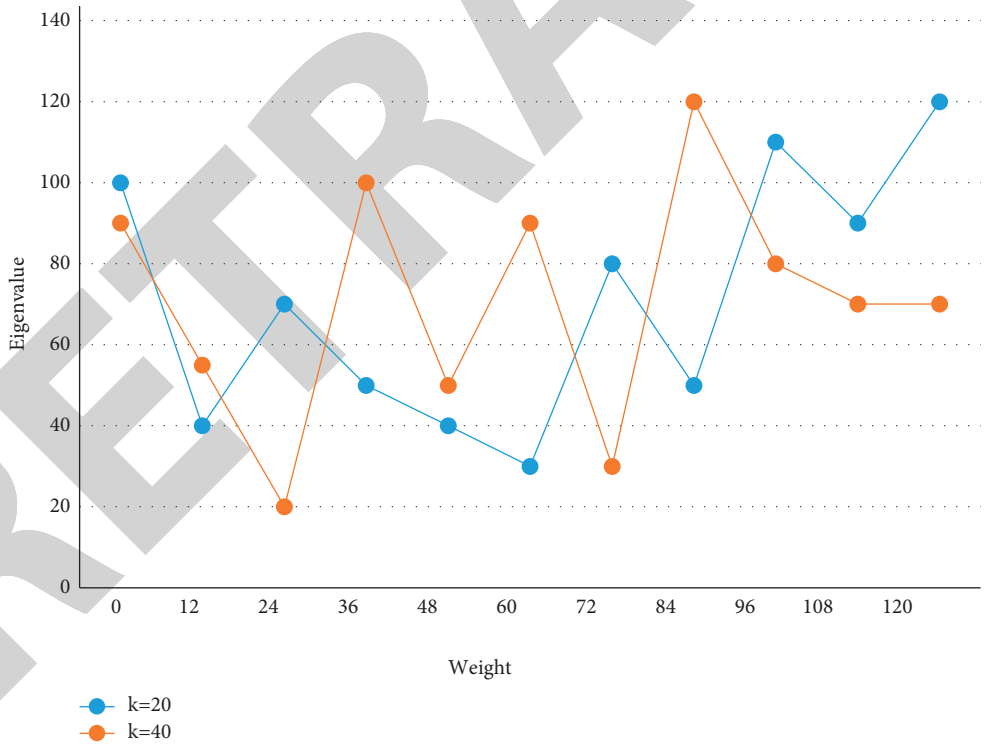

Figure 5: Comparison of eigenvalues.

evaluated directly, and the deviation of the results is the greatest. In the evaluation index system, the value fields and units of different indicators are different, and some of them are negative indicators, and for negative indicators, negative numbers are used to represent them. Moreover, multiple grading is also a human operation, and it is difficult to determine whether new human errors will be introduced in the case of reducing the repeatability.

Second, in the form of a questionnaire, the public, the officials themselves, and experts with certain experience were asked to give their judgment on the importance of each evaluation factor. To ask professional instructors, advanced

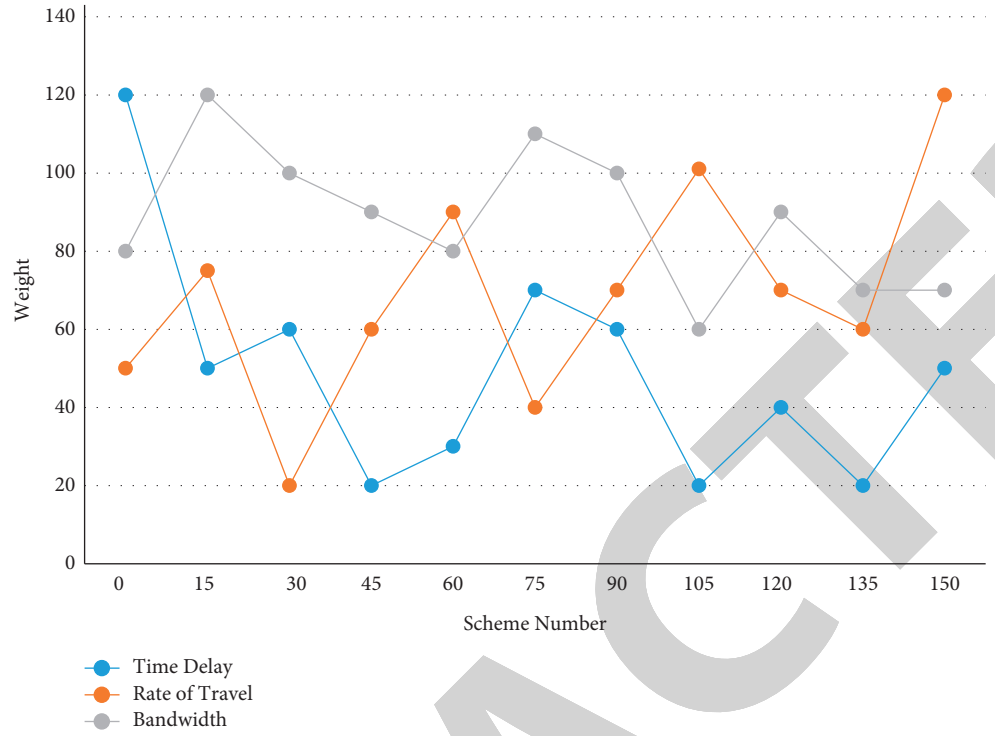

Figure 6: Weight comparison of bandwidth, delay, and moving speed.

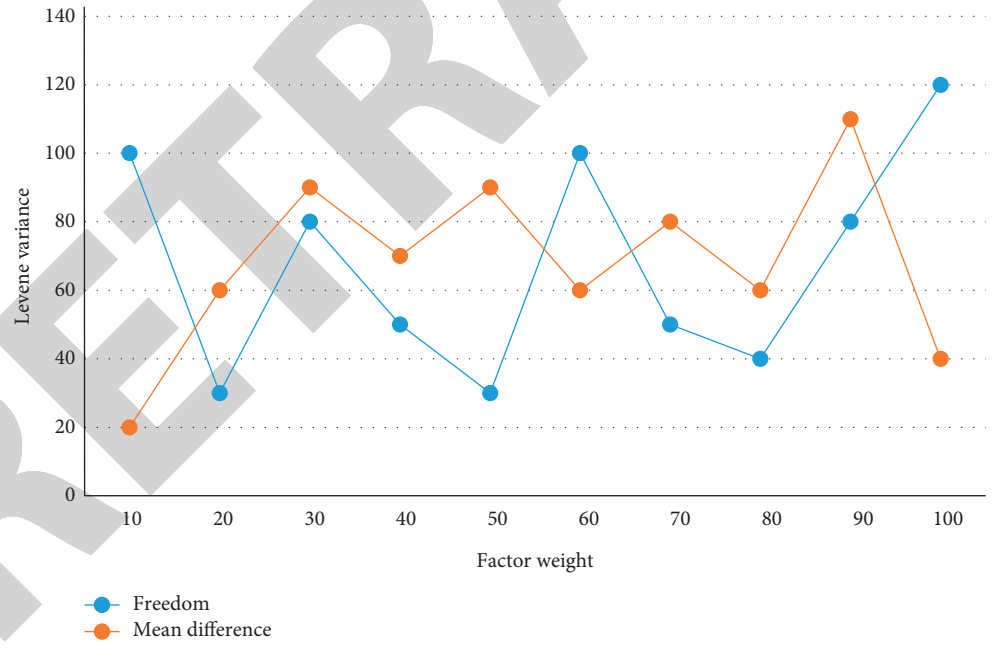

Figure 7: Levene variance of freedom and mean difference under different factor weights.

representatives, and some students of entrepreneurial education to assess the qualitative indicators of the performance evaluation of entrepreneurial education in universities, questionnaires were given. One hundred questionnaires were distributed, and 52 were returned, with a return rate of 52%. The results are shown in Table 1.

Ten important scales were established, and the importance of the factors were compared two by two based on

Table 1: Statistics of performance evaluation results of entrepreneurial education.

Primary index	$A_1(0.1)$	$A_2(0.2)$	$A_3(0.3)$
Secondary index	A_1	A_2	A_3
Weight	0.33	0.42	0.57
Excellent	6	5	8
Medium	9	3	6
Poor	4	5	6

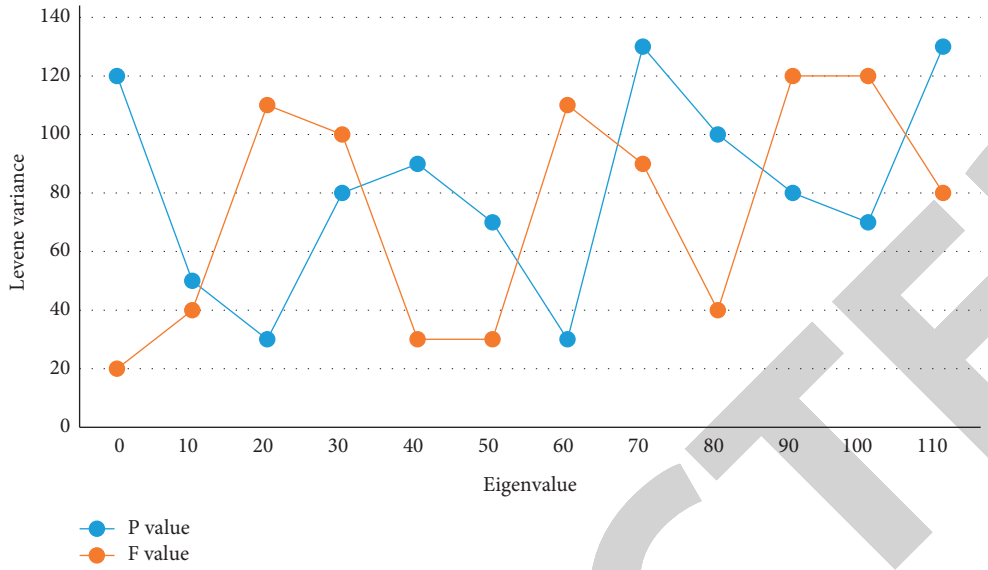

Figure 8: Levene variance under different eigenvalues.

Table 2: α coefficients of different categories.

Category	Alpha coefficient of 100 questions	20 factors and the alpha coefficient of the total score	Alpha coefficient between 20 factors
Alpha coefficient	0.442	0.768	0.719
Number of factors	30	10	25

the experience and insights of the entrepreneurial process, and an objective and reasonable pairwise comparison matrix was typed. The hierarchical single ranking and consistency test and the hierarchical total ranking and consistency were performed, and after adjustment and modification, all consistency tests were passed. For multiple factors, because the factor sets are classified and grouped in advance, the factors within the same group generally have similarity in one aspect, which reduces the influence of the duplication phenomenon to a certain extent. If the evaluation factors are weighted more equally, a weighted average type model can be used, and the Levene variance under different feature values is shown specifically in Figure 8.

Finally, the evaluation factors are screened again by using the attribute simplification method. In practical application, in order to reduce the subjectivity in this kind of evaluation and make the weights of indicators of the same level tend to be more reasonable, it is common to use weighting method in conjunction. In other words, the fuzzy integrated assessment method is actually a process of lowering the evaluation object from n dimension to 1 dimension and giving the result, while factor analysis is mainly a process of lowering the evaluation object from n dimension. The construction of the affiliation function in fuzzy mathematics is arbitrary, so there may be cases of exaggerated weights, so it is relatively more accurate to use α coefficients as the estimates of internal consistency of the scale. The results are shown in Table 2.

The standard deviation of the α coefficient among all test subjects was 0.683, indicating good confidence.

The values in the comprehensive evaluation vector represent the affiliation of the evaluation index scores and their weights to each evaluation level after synthesis. The degree of consistency of the judgment matrix can be checked by the change of the eigenvalues of the judgment matrix. Thus, the affiliation degree of the evaluation index corresponding to the evaluation level is multiplied with the score assigned to this evaluation level, and then the summation is performed to calculate the comprehensive evaluation score of this evaluation index, and the evaluation level can be determined against the quantitative evaluation-level criteria.

5. Conclusions

As a very popular mainstream idea and advanced education concept, innovation and entrepreneurship education for students has attracted the attention of various colleges and universities at all levels, and they have responded positively to the national policy to reform the talent training mode. The employment guidance department of colleges and universities should scientifically analyze the changes brought to the industry and economy in the era of "Internet+," accurately study and judge the requirements for talent quality in the market, update the concept, and improve the method. The strong effect of particular indicators in real assessment work is a manifestation of this nonlinear property. The fuzzy integrated assessment approach also has the benefit of

converting fuzzy qualitative difficulties into precise quantitative calculation problems. As a result, this study investigates the fuzzy integrated assessment of college students' entrepreneurial education against the backdrop of Internet+, which depicts the qualitative problems in the scientific quantitative evaluation of classroom teaching quality and reduces them to the quantitative representation of evaluation level and each evaluation index by fuzzy integrated assessment, allowing qualitative and quantitative analysis to be better integrated. By evaluating the entrepreneurial education of college students with fuzzy integrated assessment, it can be used as a basis for judging the effect of networked learning, analyzing the reasons for the difference in the quality of networked learning, and measuring the gap between the development levels of networked learning at home and abroad. It can comprehensively improve college students' vocational awareness, vocational skills, and entrepreneurial skills; cultivate their innovation and entrepreneurial consciousness; help them build up confidence in entrepreneurship; and equip them with good psychological quality and basic entrepreneurial ability.

Data Availability

The data used to support the findings of this study are included within the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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