

Analysis of the Construction of Employment Evaluation System for Higher Vocational Students based on AHP Model

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Abstract

This article deeply and comprehensively explores the construction issues of the employment evaluation system for higher vocational students based on the Analytic Hierarchy Process (AHP) model. It elaborates in detail the principles of the AHP model and the remarkable advantages it has in application in this field. On this basis, it further analyzes in detail a series of key indicators of the employment evaluation of higher vocational students, including many important aspects such as professional skills, comprehensive qualities, and practical experience. Through carefully constructing such an employment evaluation system, it is able to comprehensively assess the actual employment situation of higher vocational students in a more scientific and accurate way. This can not only provide extremely valuable and strong basis for the improvement of higher vocational education in terms of teaching content and training methods, but also provide important references for students to plan their own career development paths. At the same time, it also conducts in-depth analysis of various challenges faced in the process of system construction, such as the improvement of the indicator system and the accurate acquisition of data. In response to these challenges, a series of corresponding solutions are put forward, such as continuously optimizing indicators and strengthening data management, etc., and its purpose is to vigorously promote the employment evaluation work of higher vocational students to continuously develop in a more complete and efficient direction.

Keywords

AHP Model; Higher Vocational Students; Employment Evaluation System.

1. Introduction

With the rapid development of higher vocational education, the employment problem of vocational college students has received increasing attention. Constructing a scientific and reasonable employment evaluation system is of great significance for accurately assessing students' employment ability, improving the quality of higher vocational education, and promoting students' employment. Nowadays, higher vocational education has become an indispensable and important part in China's education system. Under this background, the number of vocational college students is continuously increasing, and their employment situation is directly related to social stability and development. A scientific and reasonable employment evaluation system can comprehensively and objectively reflect students' employment ability and help schools understand students' strengths and weaknesses, so as to adjust educational and teaching strategies targeted and improve the quality of talent cultivation [1].

The Analytic Hierarchy Process (AHP) model, as an effective decision analysis method, provides a new idea and method for the construction of the employment evaluation system for vocational college students. It decomposes complex problems into several levels and factors, and determines the weights and interrelationships of various factors by using a combination of

quantitative and qualitative methods to obtain comprehensive evaluation results. For example, employment ability can be decomposed into aspects such as professional skills, practical abilities, and comprehensive qualities, and the AHP model can be used to analyze the importance of these factors in employment evaluation, so as to more accurately assess students' employment situations, provide personalized guidance and support for students, and promote the development of higher vocational education in a direction that is more adaptable to social needs.

2. The Principle and Advantages of the AHP Model

The AHP model decomposes complex problems into multiple levels and factors, determines the relative importance of each factor through pairwise comparisons, and then conducts comprehensive evaluations. The principle of this model is based on the way humans recognize and judge complex things. By gradually disassembling and refining the overall problem, it is easier to understand and handle. Its advantages first lie in its ability to skillfully combine qualitative and quantitative analysis. For some factors that are difficult to accurately measure directly with numerical values, such as students' comprehensive qualities and professional ethics, the relative importance can be determined through qualitative analysis and comparison, and then combined with quantitative data such as professional grades and the duration of practical experience to make the evaluation result more scientific and reasonable [2-4].

In the employment evaluation of vocational college students, the AHP model can systematically consider various influencing factors. For example, it can not only cover students' own professional knowledge level and the degree of mastery of practical skills but also include soft qualities such as communication ability, teamwork spirit, and innovative thinking. Through such comprehensive considerations, it is possible to more accurately reflect students' employment ability and potential. For example, in the evaluation, it can be found that although some students' professional grades are not the most outstanding, they have strong communication and teamwork abilities, which may become a great advantage in actual work, and the AHP model can keenly capture these factors, thereby making a more objective and comprehensive evaluation of students. Another example is that the potential of students to adapt to different working environments and deal with challenges can also be evaluated through the relevant factor analysis in the AHP model, which is of great significance for predicting students' future career development [5].

3. Key Indicators in the Employment Evaluation of Vocational College Students

3.1. Professional Skills

Including the degree of students' mastery of professional knowledge and practical operation ability, which is the core competitiveness for employment. Solid mastery of professional knowledge is the basis for students to be able to establish themselves in a specific field. Only by having a deep understanding of professional theories can they better apply them to practical work. And the practical operation ability directly reflects whether students can convert the learned knowledge into actual work results. For example, in engineering majors, whether students can skillfully operate relevant equipment for production or experiments; in liberal arts majors, whether students can use professional methods for research and analysis, etc. [6].

3.2. Comprehensive Qualities

Such as communication ability, teamwork ability, and innovation ability, which are crucial for students to adapt to the workplace environment. Good communication ability can ensure that students can effectively exchange information and collaborate with colleagues, superiors, and

clients in the workplace. Teamwork ability enables students to exert their own advantages in team work and jointly promote the progress of the project. Innovation ability is particularly crucial in today's rapidly developing society. Students with innovation ability often can bring new ideas and development opportunities for enterprises. For example, in some creative industries, students with strong innovation ability are more likely to stand out.

3.3. Practical Experience

The experience accumulated from practical activities such as internships and project experiences can enhance students' employment competitiveness. Through internships, students can understand the working mode and requirements of the workplace in advance, become familiar with relevant business processes, and have the opportunity to apply theoretical knowledge to practical work. Project experience can exercise students' comprehensive abilities, including project management and problem-solving. For example, if students have participated in the research and development or implementation of a certain important project, this often becomes a highlight to attract enterprises when seeking employment, allowing enterprises to see that students have the ability to actually solve problems and deal with challenges. In addition, rich practical experience can also make students more clear about their career direction and interests, laying a solid foundation for future career development.

4. Construction of the Employment Evaluation System based on the AHP Model

4.1. Establishment of the Hierarchical Structure Model

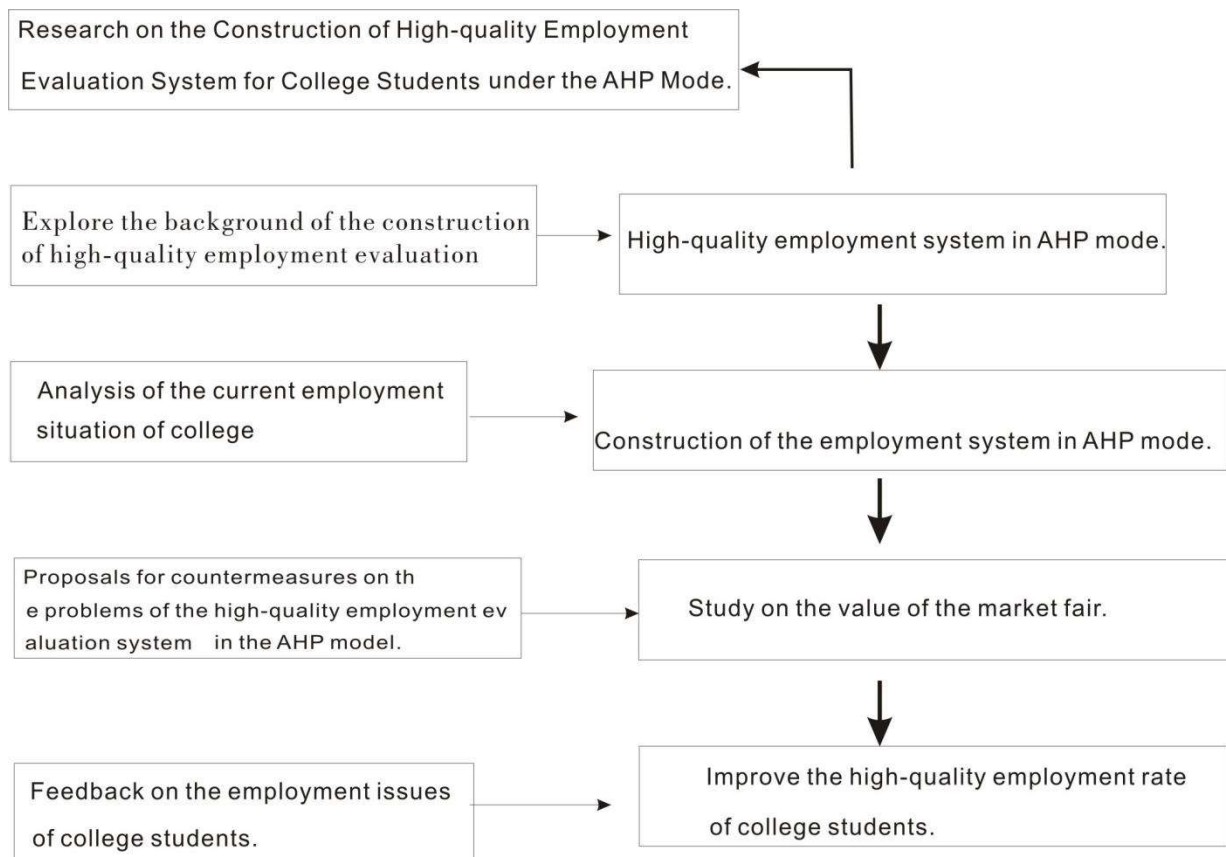


Figure 1. The construction process of the high-quality employment evaluation system for vocational college students under the AHP model.

Decompose the employment evaluation target into different levels and factors to form a clear hierarchical structure. For example, the employment evaluation target can be placed at the top layer, and the next layer below it can be divided into main dimensions such as professional skills, comprehensive qualities, and practical experience. Then, each main dimension can be further subdivided into specific sub-factors. For example, professional skills can include the mastery of professional knowledge and the degree of skill proficiency; comprehensive qualities can cover communication ability, teamwork ability, adaptability, etc.; practical experience can include internship experience and project participation. Such a hierarchical structure model helps to comprehensively and systematically consider various factors affecting employment. In order to better carry out project research and implementation, the process of constructing the high-quality employment evaluation system for vocational college students under the AHP model is designed in combination with the principles, as shown specifically in Figure 1.

4.2. Construction and Calculation of the Judgment Matrix

Determine the relative importance among various factors through methods such as expert scoring to calculate the weights. In order to ensure accuracy and reliability, multiple experts from different fields such as enterprises and schools can be invited to score. When constructing the judgment matrix, it is necessary to compare each pair of factors to judge the degree of their relative importance. For example, for the two factors of professional skills and comprehensive qualities, experts may think that professional skills are more important and give them a higher weight. Through a series of calculations and processing, specific weight values of various factors can be obtained, and these weight values will play a key role in the subsequent evaluation.

4.3. Generation and Analysis of the Evaluation Result

Generate a comprehensive evaluation result according to the weights and the actual performance of students, and conduct in-depth analysis. After collecting the relevant information of students, calculate according to the set standards and weights to obtain the comprehensive score of each student. Then, conduct in-depth analysis of the evaluation result. Not only can the specific advantages and disadvantages of each student be understood, but also the employment situation of the student group as a whole can be grasped. For example, it can be found that students in some majors generally perform strongly in a certain aspect, but are lacking in other aspects, thus providing valuable reference basis for the teaching reform and talent cultivation of the school. At the same time, by comparing and analyzing the evaluation results of different batches of students, the effectiveness and improvement direction of the employment evaluation system can also be observed in order to continuously improve and optimize the system.

5. Solutions

5.1. Continuously Conduct Research

Widely solicit opinions from all parties and timely adjust the indicator system. Regular in-depth exchanges should be carried out with the human resources departments of enterprises, industry experts, vocational college students themselves, and school teachers to understand their views and suggestions on the existing employment evaluation system. Through forms such as questionnaires and interviews, collect feedback on the rationality of indicators and weight distribution, so as to dynamically optimize and adjust the indicator system according to the actual situation to ensure that it can always accurately reflect the employment ability and market demand of vocational college students.

5.2. Strengthen Data Management

Establish a strict data review mechanism to ensure data quality. Ensuring the accuracy, completeness, and consistency of data is the basis for the reliable operation of the evaluation system. Set up a dedicated data review position to strictly check the input data and check the authenticity and logic of the data. At the same time, establish a data backup and recovery mechanism to prevent data loss or damage. Regularly clean and maintain the data to remove invalid or outdated data to ensure the timeliness and usability of the data.

5.3. Strengthen Publicity and Training

Enable relevant personnel to fully understand the value and usage methods of the system. Through holding special lectures, training courses, etc., introduce the principles, functions, and operation procedures of the employment evaluation system to school administrators, teachers, students, etc. Produce detailed operation manuals and tutorials for the convenience of relevant personnel to consult and learn at any time. In the process of publicity, it is necessary to highlight the important significance of the system for promoting student employment and improving teaching quality, and improve everyone's attention and enthusiasm for using the system. In addition, experience sharing sessions can also be organized to invite those who have successfully used this system to share experiences and insights, and further promote the promotion and application of the system.

6. Conclusion

The employment evaluation system for vocational college students based on the AHP model has important application value. It conducts a comprehensive and detailed analysis and evaluation of the employment-related factors of vocational college students in a hierarchical and structured manner. Through scientific and reasonable evaluations, it can accurately reflect the specific situations of vocational college students in aspects such as professional skills, comprehensive qualities, and practical experience, providing targeted and powerful guidance for the employment of vocational college students. This kind of guidance not only helps students clarify their own strengths and weaknesses, so as to improve and enhance them in a targeted manner, but also helps them better plan their career and make wiser employment choices. At the same time, this system also has far-reaching significance for promoting the continuous development of vocational education. It can provide an important basis for the educational and teaching reform of schools, enabling schools to timely adjust professional settings, course contents, and teaching methods according to the evaluation results to better adapt to market demand and the development needs of students. In addition, it can also strengthen the connection and cooperation between schools and enterprises, promote the integration of production and education, and further improve the quality and level of vocational education. In the process of system construction, it is necessary to fully recognize the challenges faced. For example, issues such as the rationality and dynamic adjustment of the indicator system, the accuracy and security of data, and the understanding and acceptance degree of relevant personnel to the system. In response to these challenges, effective solutions should be actively adopted to continuously improve the system functions. By continuously conducting research, ensure the scientific nature and adaptability of the indicator system; strengthen data management to ensure the quality and reliability of data; strengthen publicity and training to improve the cognitive and operational capabilities of relevant personnel to the system. Only in this way can it better serve the employment and career development of vocational college students and play a greater role in cultivating high-quality skilled talents who adapt to social needs.

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