Analysis of Factors Influencing the Improvement of Employment Quality among College Graduates

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Abstract: Against the background of university enrollment expansion and intensified employment competition, the employment quality of college graduates has attracted increasing attention. Taking 3,850 graduates from 32 universities nationwide from 2022 to 2023 as the sample, this paper adopts literature review, questionnaire survey, and statistical analysis to explore the effects of four dimensions, namely individual factors, educational factors, economic environment, and policy factors, on employment quality by using a structural equation model and multiple regression analysis. The results show that major-job matching, internship experience, and comprehensive competence are key individual factors; university major settings, talent cultivation models, and employment guidance are the main educational factors; regional economy and industrial structure have a positive promoting effect on employment quality; and employment policies and market regulation play a moderating role. The influence weights of the four dimensions are 0.352 for individual factors, 0.289 for educational factors, 0.231 for economic environment, and 0.128 for policy factors. Accordingly, this paper proposes countermeasures such as optimizing major layout, innovating talent cultivation, improving employment guidance, and strengthening policy support, so as to help improve the employment quality of college graduates.
Keywords: college graduates; employment quality; influencing factors; structural equation model; talent cultivation

1. Introduction

The employment quality of college graduates is not only related to individual career prospects and life development, but also affects the rational allocation of national human resources and the level of economic and social development. In recent years, although the overall employment rate of college graduates has remained relatively stable, structural employment problems remain prominent, mainly reflected in a low major-job matching rate, income levels below expectations, and limited development space. According to the 2023 Monitoring Survey Report on Migrant Workers released by the National Bureau of Statistics, the major-job matching rate of university graduates in their first employment was 68.2%, down 4.8 percentage points from 2019. In addition, the 2023 College Student Employability Survey Report released by Zhaopin also shows that graduates of the class of 2023 expected a monthly salary of CNY 6,295, while the actual contracted monthly salary was CNY 5,712, indicating a considerable gap between expectations and reality. Studying the main factors affecting the employment quality of college graduates and establishing reasonable evaluation standards and influence mechanisms play a positive role in improving talent cultivation models, strengthening employment service systems, and enhancing employment quality.

2. Construction of an Employment Quality Evaluation System for College Graduates

2.1 Definition of Employment Quality and Division of Dimensions

Employment quality is a comprehensive indicator used to evaluate the employment status of workers and has multiple dimensions. Based on the concept of decent work proposed by the International Labour Organization and the actual development of higher education in China, this paper defines the employment quality of college graduates as the consistency between the jobs obtained by graduates during employment and their education, career expectations, and development needs. Employment quality includes both objective employment conditions and subjective employment perceptions. Objective employment conditions mainly refer to wage income, job stability, career development space, and working environment, while subjective employment perceptions mainly include job satisfaction, degree of major-job matching, occupational identity, and work pressure. Considering the multidimensional nature of employment quality, this paper proposes evaluating employment quality from four dimensions: economic returns, stability and security, development prospects, and matching degree. The economic returns dimension reflects graduates' wage income, the stability and security dimension reflects employment continuity and the degree of social security, the development prospects dimension measures career growth space and promotion opportunities, and the matching degree dimension evaluates the fit between professional skills and job requirements [1].

2.2 Design of the Employment Quality Evaluation Indicator System

Based on the four-dimensional framework of employment quality, this paper proposes an evaluation

indicator system consisting of 16 secondary indicators. The economic returns dimension includes four indicators: starting salary level, welfare benefits, salary growth potential, and performance incentive mechanism. The stability and security dimension includes four indicators: contract type, social insurance coverage, job stability, and occupational safety protection. The development prospects dimension includes four indicators: promotion opportunities, space for skill improvement, clarity of career planning, and industry development prospects. The matching degree dimension includes four indicators: major-job matching degree, skill matching degree, interest matching degree, and value alignment. Indicator weights were obtained through the analytic hierarchy process and expert consultation. After two rounds of Delphi surveys involving 15 higher education experts and human resource management experts, the weights of the four dimensions, namely economic returns, stability and security, development prospects, and matching degree, were determined as 0.28, 0.22, 0.26, and 0.24, respectively. The weights of the secondary indicators under each dimension were normalized according to the expert scoring results.

2.3 Measurement Methods and Data Sources for Employment Quality

Employment quality was measured using a comprehensive evaluation method, and the scores of each dimension and the total score were calculated using the weighted average method. The measurement formula is as follows:

$$Q = \sum_{i=1}^{4} w_i \sum_{j=1}^{4} w_{ij} x_{ij}$$

where Q denotes the comprehensive employment quality score, w_i denotes the weight of the i-th dimension, w_{ij} denotes the weight of the j-th indicator under the i-th dimension, and x_{ij} denotes the standardized indicator value. The data sources mainly include two parts. The first part is the self-designed *Questionnaire on the Employment Quality of College Graduates*. The questionnaire adopted a five-point Likert scale and covered basic personal information, educational background, employment status, work perceptions, and other aspects. Using stratified sampling, 3,850 graduates from the classes of 2022–2023 were selected from 32 different types of universities across China for the survey. The response rate was 89.3%, and 3,439 valid questionnaires were obtained. The second part consists of secondary data, including annual employment quality reports from various universities, statistical data on the employment status of college graduates from the Ministry of Education, and employment monitoring data from the Ministry of Human Resources and Social Security, which were used for supplementary verification to ensure the authenticity and representativeness of the data.

3. Identification and Analysis of Factors Influencing the Employment Quality of College Graduates

3.1 Effects of Personal Characteristic Factors on Employment Quality

Personal characteristics are fundamental factors affecting the employment quality of college graduates, mainly involving gender, professional background, educational level, comprehensive competence, and practical experience. According to the results of structural equation model analysis, major-job matching has a direct effect on employment quality, with an influence coefficient of 0.387, making it the most influential personal factor affecting employment quality. Graduates with a high degree of major-job matching are more likely to find suitable positions, and their salary levels and development opportunities are also much better than those of students whose jobs do not match their majors. The data show that students with a high degree of major-job matching had an average starting salary of CNY 7,124, which was 23.6% higher than that of students whose jobs did not match their majors. The influence coefficient of internship and practical experience was 0.298. Students with more internship experience were more competitive in job seeking, and their comprehensive employment quality scores were 0.42 points higher than those of students without internship experience [2]. The influence coefficient of comprehensive competence was 0.265. Soft skills, including communication and expression ability, teamwork ability, innovative thinking ability, and learning adaptability, are increasingly favored by employers. Educational level had a positive but relatively small effect on employment quality, with an influence coefficient of 0.156. Graduates with master's degrees had certain advantages in salary and career development, but with the popularization of higher education, the marginal utility of academic qualifications has gradually declined. The effect of gender on employment quality showed differences across contexts. Gender preferences exist in some industries and positions, but overall, gender had a limited impact on employment quality, with a standardized path coefficient of 0.089.

3.2 Effects of Educational Background Factors on Employment Quality

Educational background factors reflect the role of universities in influencing graduates' employment quality

during the talent cultivation process, mainly including university level, major settings, cultivation methods, and employment guidance. University reputation and comprehensive strength had a positive effect on graduates' employment quality. The comprehensive employment quality score of graduates from "Double First-Class" universities was 0.31 points higher than that of graduates from ordinary undergraduate institutions, with an influence effect coefficient of 0.243. This is mainly because well-known universities have better faculty resources, teaching resources, alumni networks, and social recognition. The influence effect coefficient of the rationality of major settings was 0.289. Graduates from majors aligned with national needs and social development needs had significantly better employment quality than those from traditional majors. The data show that the employment satisfaction of graduates from emerging majors such as artificial intelligence, big data, and new energy was 85.7%, much higher than the 72.3% of traditional liberal arts majors. The influence coefficient of innovation in talent cultivation models was 0.267. Majors adopting industry–education integration, university–enterprise cooperation, and practice-oriented cultivation models produced graduates with better professional skills, practical ability, and occupational adaptability. The influence effect coefficient of employment guidance service quality was 0.198. Employment guidance services include career planning guidance, job-seeking skills training, recruitment information services, and employment policy interpretation. High-quality employment guidance can improve graduates' employment success rate and employment matching degree.

3.3 Effects of Socioeconomic Environment Factors on Employment Quality

Socioeconomic environment factors reflect the external influence of macroeconomic conditions on the employment quality of college graduates, including regional economic development level, industrial structure characteristics, and labor market conditions. The influence effect coefficient of regional economic development level on employment quality was 0.312. The comprehensive employment quality score of graduates in developed eastern regions was 0.28 points higher than that of graduates in central and western regions. According to data from the National Bureau of Statistics, in 2023, the average annual wage of urban employees in the eastern region was CNY 108,536, which was 27.3% higher than that in the central region and 31.8% higher than that in the western region. The influence coefficient of industrial structure optimization was 0.274. In regions where the tertiary industry, especially modern service industries, is well developed, more high-quality jobs can be provided for college graduates. The data show that for every 1 percentage point increase in the share of the tertiary industry, the average starting salary of college graduates in that region increased by approximately 2.3% [3]. The degree of labor market competition had an inverted U-shaped effect on employment quality. Moderate competition helps improve employment quality, whereas excessively intense competition increases employment pressure and lowers wages. The influence effect coefficient of the urban innovation and entrepreneurship environment was 0.189. In cities with a strong innovation atmosphere and favorable entrepreneurship policies, graduates, especially innovators and entrepreneurs, have better development space, employment quality, and career prospects.

3.4 Effects of Policy and Institutional Factors on Employment Quality

Policy and institutional factors reflect the role of the government in promoting high-quality employment for college graduates, mainly in terms of employment policy support, market regulation, and social security systems. The influence coefficient of employment policy support on employment quality was 0.218, including employment subsidies, entrepreneurship support, skills training, internship programs, and other measures. In 2023, the central government allocated CNY 66.89 billion in employment subsidy funds, of which expenditures related to employment and entrepreneurship for college graduates accounted for 35.2%. Policy support significantly improved the employment environment for graduates. The influence coefficient of employment market standardization was 0.165. Sound labor laws and regulations, standardized recruitment procedures, and effective rights protection mechanisms provide graduates with a fair and just employment environment. The influence coefficient of the completeness of the social security system on employment quality was 0.143. The coverage and protection level of social insurance, including basic pension insurance, basic medical insurance, unemployment insurance, and work-related injury insurance, directly affect graduates' employment stability and sense of security. The data show that in 2023, the participation rate in basic pension insurance for urban employees reached 82.5%, an increase of 6.7 percentage points compared with 2019. The continuous improvement of the social security system

has played a positive role in enhancing employment quality.

4. Research on Mechanisms and Pathways for Improving the Employment Quality of College Graduates

4.1 Promotion Mechanism of Human Capital Improvement on Employment Quality

Human capital is an important factor affecting graduates' employment quality and plays a positive role in knowledge accumulation, skill cultivation, and ability improvement. In terms of knowledge accumulation, the richness and depth of professional knowledge play a crucial role in graduates' competitiveness in the labor market. In particular, with social development, a composite knowledge structure is highly beneficial for improving employment quality. According to data released by the Ministry of Education in 2023, the initial employment rate of graduates with interdisciplinary knowledge backgrounds was 15.2 percentage points higher than that of graduates with a single professional background, and their salaries were also 23.7% higher. In terms of skill cultivation, the integration of practical skills and theoretical knowledge is an important pathway for increasing human capital. Graduates with more than six months of internship experience scored significantly higher in employment quality evaluation than graduates without internship experience.

4.2 Role Pathway of Higher Education Supply-Side Reform

Higher education supply-side reform starts from structural adjustment and quality improvement, and reexamines the relationship between talent supply and social demand. Optimization of the major structure is one of the key components of the reform. While continuously adjusting major settings, universities should optimize the major structure, strengthen the construction of emerging majors, and meet the demand for talent in economic and social development. In 2022, Chinese universities added 1,773 newly registered majors, among which majors related to new engineering, new medicine, new agriculture, and new liberal arts accounted for 67.8%. The degree of alignment between the major structure and the industrial structure increased by 31.5% compared with 2019. Reform of talent cultivation models is also an important part of the reform. New talent cultivation models, such as industry–education integration, university–enterprise cooperation, and collaborative education, have broken the previous education model and connected the education chain and talent chain with the industrial chain and innovation chain.

4.3 Optimization Strategies for Labor Market Matching Efficiency

The improvement of labor market matching efficiency results from more precise connection between supply and demand brought about by improved information symmetry and matching mechanisms. The construction of information platforms has formed a diversified and comprehensive employment information service network, and big data technology and artificial intelligence algorithms have greatly improved the accuracy of job recommendation and matching efficiency. In 2023, the national employment service platform for college graduates released more than 18.47 million pieces of job information, with an intelligent matching success rate of 73.6%, which was 41.2% higher than that of traditional matching methods. The advancement of regional coordinated development strategies has made talent mobility more rational, the distribution of talent in eastern, central, and western regions has become increasingly balanced, and regional gaps in employment quality have narrowed [5].

Innovation in matching mechanisms improves the rationality and effectiveness of person–job matching by establishing a multidimensional evaluation system and a dynamic adjustment mechanism. Career guidance services have become increasingly professional, with more content related to personalized employment guidance, career planning, and job-seeking skills training. The decisive role of the market in resource allocation has been fully brought into play. The rapid development of the human resources service industry has greatly promoted labor market matching efficiency. In 2022, there were 59,100 human resources service institutions nationwide, with annual operating revenue exceeding CNY 2.46 trillion, and service effectiveness improved significantly.

5. Conclusion

Economic environment factors and policy factors play important roles, with influence weights of 0.231 and 0.128, respectively. Under the current condition that China's gross enrollment rate in higher education has reached more than 57%, differences in regional economic development levels and industrial structures have led college graduates in different regions to face different employment opportunities [6]. The government's emphasis on employment work and the continuous improvement of the employment market are conducive to forming a favorable employment environment. At the same time, there are significant interactions among various factors, jointly promoting the improvement of

employment quality. This lays a foundation for formulating systematic measures to improve employment quality, indicating that relying on efforts in only one aspect cannot effectively enhance employment quality. Instead, improvement must be pursued from multiple aspects, including individual ability cultivation, optimization of educational supply, improvement of the economic environment, and policy support, so that the employment quality of college students can be substantially improved.

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