

An empirical study on employment behavior of college students in the post-epidemic era based on Herzberg's two - factor theory

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Abstract. The COVID-19 epidemic has had a profound impact on work in all walks of life. Many enterprises and units have changed their employment standards, which has greatly impacted the employment of college graduates. How to find a desirable job in the context of the new coronavirus epidemic is a major problem that college graduates must face. In order for the majority of students to better enter the society, combine the actual needs of college students in the post-epidemic era with the current stage of higher education, and cultivate practical talents that the post-epidemic society really needs, it is particularly important to investigate and study the values of employment of today's college students. Based on Herzberg's two-factor theory, entropy method and principal component analysis method, this paper conducts empirical analysis on the employment values of today's Chinese college students, and concludes that in the post-epidemic era, the emphasis on "health factors" is higher than that on "incentive factors" when choosing jobs.

Keywords: Post-epidemic era, Two-factor theory, College students, Employment values, Empirical analysis.

1. Introduction

1.1. Background

College graduates are an important group in the employment group, their employment is directly related to the vital interests of the people, directly related to the harmony and stability of the society. The employment of college students has always been a key task in the work of the world government. However, from the employment data of college students, the employment situation facing college students is not optimistic. Due to the impact of the COVID-19 epidemic and the global economic downturn, enterprises have been greatly impacted, and the number of employees has been reduced and employment opportunities have been reduced, making the employment situation of college students more complicated. On the other hand, statistics from the Ministry of Education show that the number of college graduates has been growing year by year in recent years. In 2022, the number of college graduates exceeded 10 million for the first time, reaching 10.76 million. Among them, the first class of the double class is 750,000 yuan, the first book is 1 million yuan, the second book is 3.7 million yuan, and the specialist is 4.6 million yuan. Another 1.3 million graduate students. Meanwhile, one million Chinese students are expected to return home to find work due to the epidemic.

The number of graduates is at a record high, and employers have few jobs to offer. According to Zhaopin. com's report on the employment of college graduates in the first quarter of 2022, as of mid-April, 46.7 percent of job-seeking graduates had received offers and 15.4 percent had signed contracts. Meanwhile, in an increasingly competitive job environment, the average expected salary of this year's graduates is 6,295 yuan, and the average signed salary is 6,507 yuan, down 6 percent from last year's expected salary.

Based on this background and the two-factor theory proposed by American psychologist Frederick Herzberg, namely the motivation-health theory, this paper carries out research. The theory includes motivation factors and health factors, including the work itself is challenging, reward, promotion, growth, greater responsibility, and sense of achievement, which are related to the positive factors of

work. It is also the work itself; Health factors include 10 factors, including enterprise policies and administrative management, technical supervision system, the relationship between supervisors and individuals, the relationship between superiors and subordinates, wages, work safety, personal life, working environment, and status. These factors are related to the negative factors of work, as well as the atmosphere and environment of work.

1.2. Purpose and significance of the study

In order for the majority of job-seeking college students to better enter the society, successfully find employment and actively participate in social production, but also for Chinese colleges and universities to be able to combine the actual needs of college students in the post-epidemic era with the current stage of higher education, in order to cultivate the post-epidemic society really need of practical talents, so it is necessary to study the value of employment of today's college students.

Scholars who study the employment values of college students in the post-epidemic era have a better understanding of the work status and practical needs of college graduates, and provide targeted suggestions for the improvement of education in Chinese colleges and universities at the present stage and the improvement of the employment quality of Chinese college students. At the same time, based on the two-factor theory, this paper analyzes the relationship between health factors and motivating factors and the employment values of college students, and makes a preliminary study on the relationship between them. In addition, the questionnaire data and empirical analysis results provide relevant departments with countermeasures and suggestions for reference when formulating policies, and have important guiding significance for improving the employment practice of local college students.

1.3. Literature Review

Before the outbreak of the epidemic, the employment of college students has been the focus of scholars. Many scholars have analyzed the law of college students' employment. Students with high academic performance have a stronger desire to become employees [1]. College students' motivation to work may vary by region, time and industry. Among Singaporean and Korean students, pro-social motivation was positively correlated with preference for public sector work, but not among Chinese students [2].

After the outbreak of the epidemic, the employment problem of college students has become more complicated and severe. Through literature review, it is found that with the development of market economy and the change of social form, the employment problems of college graduates emerge endlessly. The joint influence of many factors, such as graduates' job-hunting intention, economic environment and competitive pressure, makes employment and entrepreneurship more difficult [3].

In terms of how the epidemic affects the employment performance of college students, current researchers focus on analyzing the economic background of social employment from a macro perspective: the COVID-19 pandemic has delayed the production and operation of enterprises, reduced the employment demand, and then reduced the recruitment scale of fresh graduates, reducing the job supply of college graduates [4]. Under the COVID-19 epidemic, on-site recruitment of enterprises is suspended, travel for interviews and internships is inconvenient, and the channels for college graduates to find jobs are blocked [5]. The economic fluctuations in the environment will inevitably affect the higher education system, and the future of universities is also uncertain [6].

As for graduates' personal employment psychology and attitude coping, researchers tend to focus on graduates' employment anxiety and employment expectation: According to the "PSCUS" tracking survey conducted by the Chinese Academy of Social Sciences before and after the outbreak of the novel coronavirus, the epidemic makes graduates pessimistic about the future economy and great employment pressure, but they can adjust their mentality independently and improve their psychological resilience [7]. The uncertainty of graduates' employment expectation aggravated by the novel coronavirus epidemic will lead to serious employment anxiety, and the mitigation effect of positive psychological capital is demonstrated [8]. College graduates are affected by the epidemic in

the process of job hunting, and their attitude of seeking stability is obvious. Under the background of the epidemic, the overall social and economic environment faces more prominent risks. The rational and pragmatic concept of "risk avoidance" leads college students to prefer "within the system" in employment [9]. According to two rounds of research conducted by the research group of Northeast Normal University, compared with 2020, the employment expectation of "unemployed" college graduates in 2021 is significantly inclined to "within the system", while their preference for "private enterprises" is significantly decreased [10].

To sum up, current relevant researches in the academic circle have comprehensively demonstrated the influence of the novel coronavirus epidemic on the employment of college graduates, laying a certain foundation for this study. However, its deficiency is that most studies focus on the impact of the epidemic, employment situation, job supply, graduates' attitude and policy suggestions, and lack in-depth analysis of mesostructural factors. Nor have scholars discussed the employment values of college students in the post-epidemic era and made relevant empirical analysis from the perspective of Herzberg's two-factor theory. Therefore, this paper makes relevant empirical analysis of the research vacancy, and analyzes the value and effect of health care factors and incentive factors on the employment of college students in the post-epidemic era under the impact of the epidemic.

2. Research methods and sampling process

2.1. Research Methods

The main research methods used in this paper include entropy method, principal component analysis, correlation analysis, multiple linear regression and other quantitative research methods.

(1) Entropy weight method

In the measurement of the comprehensive index system, the methods to determine the index weight mainly include subjective weighting method and objective weighting method. In this paper, the entropy method of objective weighting method is used to determine the weight, so as to eliminate the subjective factors. The weight can be calculated according to the entropy value, that is, the degree of variation of each index value.

(2) Principal component analysis

Principal component analysis is a statistical method. Through orthogonal transformation, a group of variables that may have correlation are converted into a group of linearly unrelated variables, which are called principal components.

(3) Multiple linear regression

The selection of appropriate independent variables is one of the preconditions for the correct multiple regression prediction. The independent variables in our study are classified into health factors and incentive factors. A number of questions are set in the two types of argument variables respectively for scoring collection. The choice of independent variables in multiple regression model can be simplified by using the correlation matrix between variables. Each category of motivating factors and health factors was made into a matrix for data collection. In the process of matrix score statistics, the average score of each question needs to be counted first, and then the weighted average is carried out according to the voter turnout of the respondents to get the data result. The data results of mediating variables and dependent variables are also obtained in this way.

2.2. Variable selection

(1) Independent variables

In terms of independent variables, incentive factor and health factor are selected according to the research hypothesis. This paper considers that there are two kinds of factors affecting the choice of employment, namely incentive factors and health factors. In this paper, incentive factors are divided into the following aspects: personal ability improvement, work responsibility, development and promotion prospects, work challenge, work interest, work safety, work sense of accomplishment, work network accumulation, corporate culture, professional matching, training and learning

opportunities, etc. The selection of these incentive factors is more suitable for the background of the post-epidemic era. Similarly, this paper also further details the health factors, including income, job stability, welfare benefits, working hours, working freedom, working pressure, distance from home, family expectations, social evaluation, corporate popularity, corporate prospects, etc.

(2) Dependent variable

In terms of dependent variable, the variable selected in this paper is employment behavior. Based on the background that the current employment situation is not optimistic, the employment behaviors selected in this paper include "following the trend of employment", "delaying employment" and "no employment".

(3) Intermediary variable

In terms of intermediary variables, based on the current pessimistic employment situation, we choose the intermediary variables as career choice concept, employment cognition and employment readiness. The frame diagram between the three variables is shown in Figure 1.

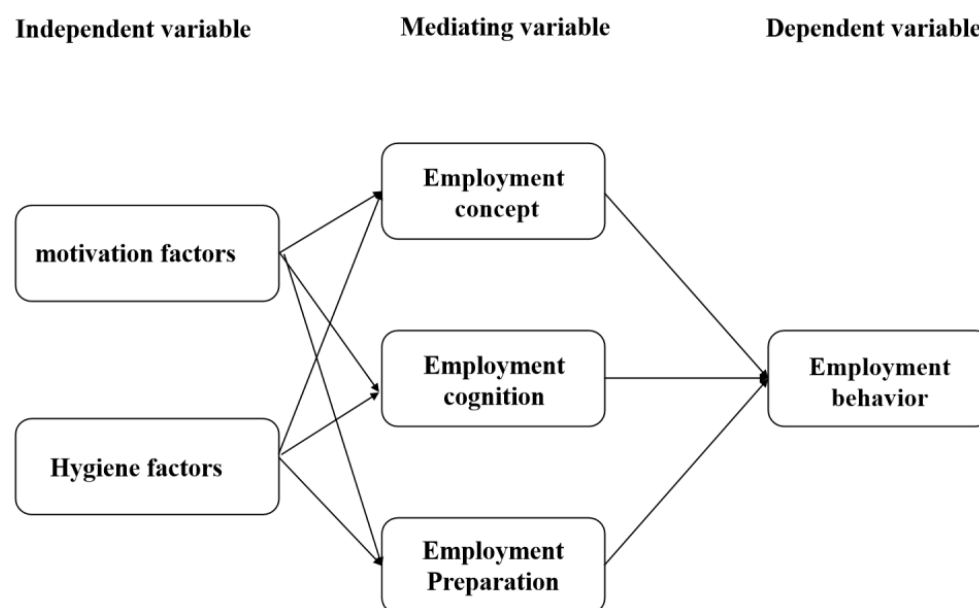


Figure 1. Diagram of variable frame

2.3. Data sources and descriptions

This paper takes the college students in Guangdong Province as the research object, adopts the random sampling method and uses the "questionnaire star" data collection software to issue online questionnaires to collect the employment intention data of college students. A total of 263 online questionnaires were collected in this study, and 247 valid questionnaires were obtained after excluding those whose response time was less than 3 minutes, with an effective rate of 93.92%. Male respondents accounted for 51.82% and female respondents accounted for 48.18%. Their majors are mainly science and engineering and economic management, and their grades are mainly undergraduate. They prefer to choose state-owned enterprises for their work environment, and their employment cognition is more inclined to think that the current employment situation is not optimistic, and they have a better understanding of national policies.

3. Results

3.1. Data processing results based on entropy weight method

In order to select appropriate indicators as the basis for subsequent analysis, this paper intends to figure out the weight results of each question by entropy weight method, and calculate the weight of 31 questions except dependent variable questions to judge the importance of each question.

Table 1. The Questionnaire questions whose weight is less than 2.5 after being tested by entropy weight method

Topic	Information entropy value	Information utility value	Weight(%)
11, You prefer professional counterpart work after the pandemic	0.935	0.065	2.47
11, You prefer a lax industry after the pandemic	0.935	0.065	2.456
6, You'll get into a habit of saving money or already have savings	0.943	0.057	2.172

For subsequent research in this paper, questions with a weight of less than 2.5 will be removed. This means the three questions listed in the above Table 1 will be removed in order to ensure that the remaining questions are more informative and the conclusions of this paper are more reliable.

3.2. Factor analysis of data based on principal component analysis

To simplify the questionnaire data into variables suitable for analysis, we perform dimensionality reduction based on the entropy weight method screening results. In this paper, we use principal component analysis to reduce the data dimensionality and generate new variables based on the results. The rotation process of the principal component analysis eliminates multicollinearity between the factors, and we treat the independent variables, mediating variables, and dependent variables separately. The rotation method used is the Varimax method, which maximizes the sum of the variances of each factor load through coordinate transformation to ensure proper factor division.

Based on the results of the dimensionality reduction, this paper categorizes questions with coefficients greater than 0.5 into the same variable. The independent variable is represented by x, the mediating variable by y, and the dependent variable by z. Within the independent variable, x1 represents motivation factors (Mo), and x2 represents health factors (HF). Within the mediating variable, y1 represents career concepts (CC), y2 represents employment cognition (EC), and y3 represents employment preparation (PE). The dependent variable is employment behavior (EB). We posit a linear relationship between the questions and factors. Subsequently, through the use of regression expressions, scores for each individual are determined for each of the different variables. The specific results are shown in Table 2.

Table 2. Variables after partial assignment

Motivating factors	Hygiene factors
-1.79651	1.25287
-0.13632	0.61402
-1.69524	-0.36054
0.8485	0.06593

3.3. Results after Linear regression

Based on the Stata16.0 software environment, the empirical study found the overall impact effect of motivation factors (Mo) and health factors (HF) on college students' employment behavior (EB), as shown in Table 3. The results in the first column of Table 3 indicate that the overall impact effect of motivation factors (Mo) and health factors (HF) on college students' employment behavior (EB) is highly significant at the 1% level, which means that the impact effect of health factors (HF) and motivation factors (Mo) on the dependent variable employment behavior (EB) is almost equal. The second column uses three mediating variables to explain college students' employment behavior (EB), and according to the results, the three mediating variables of career concepts (CC), employment cognition (EC), and employment preparation (PE) have positive effects on college students' employment behavior to different degrees, and they are all highly significant at the 1% level.

The third to fifth columns of Table 3 are the impact effects of motivation factors (Mo) and health factors (HF) on the three mediating variables. The results show that the impact effect of motivation factors (Mo) on employment cognition (EC) among the three mediating variables is the largest, while the impact effect of health factors (HF) on employment preparation (PE) among the three mediating variables is the smallest. The impact effects of the two independent variables on the three mediating variables are positive and highly significant at the 1% level. The specific coefficients are shown in the table.

Table 3. Results after Linear regression

EB	Regression	
	(1)	(2)
Mo	0.3790*** (0.0548)	
HF	0.3505*** (0.0548)	
CC		0.3058*** (0.0535)
EC		0.3791*** (0.0535)
PE		0.2585*** (0.0535)

CC	Regression	EC	Regression	PE	Regression
	(3)		(4)		(5)
Mo	0.2245*** (0.0616)	Mo	0.2311*** (0.0593)	Mo	0.0715*** (0.0634)
HF	0.1525*** (0.0616)	HF	0.2975*** (0.0593)	HF	0.1238*** (0.0633)

pour: *, **, *** Represents the significance levels at 10%, 5%, and 1%, respectively.

4. Conclusion

This article is based on Herzberg's two-factor theory in the background of the post-epidemic era and collects 247 valid questionnaires. Using methods such as entropy value method and multiple regression analysis, it conducts a relevant empirical analysis of the employment values of today's university students. The research hypothesis established based on relevant academic literature is that before the epidemic, the effect of the independent variable "motivation factor" on the dependent variable "employment behavior" is greater than that of the "health factor". However, based on the results of data analysis in this article, under the background of the post-epidemic era, the effects of "motivation factor" and "health factor" on "employment behavior" are almost the same. Therefore, the conclusion of this article is that due to the impact of the epidemic, the importance of "health factor" relative to "motivation factor" has increased.

In addition, the survey investigated the respondents' expected employment destinations (entrepreneurship, private enterprises, state-owned enterprises, civil servants, and institutions) before and after the epidemic. The results showed that before the epidemic, respondents who expected to choose entrepreneurship and work in private enterprises accounted for 9.31% and 27.53%, respectively. Those who chose to work in state-owned enterprises, institutions or become civil servants accounted for 31.98%, 14.17% and 17% respectively. After the epidemic, these five data changed to 4.86% and 19.03%, 23.08%, 20.24% and 32.79% respectively. As widely recognized, the intention of respondents for off-system and on-system work changed significantly before and after the epidemic: affected by the epidemic, more and more respondents plan to work within the system, while fewer and fewer respondents choose to work outside the system.

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