Research Article

Construction of Model to Enhance College Students’ Core Competitiveness from Perspective of Employment Competition through IoT Apps

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The lack of college students’ core competitive advantage in employment is the main reason for the difficulty of college students’ employment. Therefore, in the perspective of employment competition, the paper designs the method of building the model to improve college students’ core competitiveness.

1. Introduction

Employment is fundamental to people’s livelihood and has a bearing on China’s long-term development and social stability and harmony. Realizing full employment of the labor force has become an important indicator to measure the level of national economic development and the happiness of people’s lives [1]. With the rapid development of economic globalization, China’s production, trade, finance, investment, and other fields are greatly impacted by globalization. Economic globalization accelerates the pace of deepening reform, opening up the economy and participating in global trade competition in China [2–4], and also has a profound impact on China’s employment environment. In the 21st century, the knowledge economy and science and technology have developed rapidly [5]. At present and even in the future [6], on the whole, the employment situation in China is still very severe.

According to the statistical data, although the demand in the labor market is slightly greater than the supply, the problem of difficult employment still exists in the whole society, which is caused by the structural contradiction of employment [7–9]. At present, China’s economy is transforming from external scale expansion to internal structure adjustment, and the adjustment of economic structure will inevitably bring about changes in labor demand [10]. In order to adapt to the rapid economic development, some emerging enterprises and industries have begun to emerge, and the demand for middle and senior technical talents is also increasing. In the labor market, there is a shortage of skilled talents that can meet the needs of enterprises and industries [11], which leads to the situation of “labor shortage” and “recruitment difficulty” of enterprises. On the other hand, some traditional and backward industries cannot adapt to the new situation and the needs of rapid economic development, resulting in a large amount of surplus labor [12–14]. A large number of unemployed people are facing the problem of being laid off and reemployed because of the lack of middle and senior skills.

As mentioned above, although the growth rate of the total number of college graduates has slowed down in recent years [15], the total number of college graduates still shows an increasing trend every year [16, 17]. In addition, the structural contradiction of employment is particularly evident among college graduates, who cannot find satisfactory jobs [15], and employers cannot recruit suitable candidates, resulting in the increasingly serious problem of college graduates’ employment. Analyzing the reason, it can be found, with the rapid development of the economy, at present, that a lot of units to choose and employ people, especially the private enterprises, will “benefit” in the first place, not willing to pay too much cost or want to reduce the cost as much as
possible on-the-job training for new hires, so the unit to choose and employ persons attaches great importance to apply for university graduates’ various aspect abilities [18]. With professional skills and work ability, they hope to recruit high-quality personnel to save costs. However, many college students tend to only pay attention to scores and pay too much attention to academic performance while ignoring the improvement of ideology and morality and the cultivation of comprehensive ability, which results in their lack of obvious core competitiveness in the employment market [19–22]. Based on this, it gives rise to such a situation. A job in the job talent market can provide more job opportunities, but satisfying the conditions of university graduates is extremely limited. The unit of choosing and employing people is reluctant to reduce the recruitment conditions. So there is a unit to choose and employ persons to find suitable graduates, and graduates get jobs. This is the “employment gap” between employers and graduates [23–25]. The existence of an “employment gap” is an important manifestation of college students’ employment difficulties, which is not conducive to college students’ employment.

Therefore, in the current severe employment situation, college students must keep a clear head, realize the employment situation, and do a full analysis of their own conditions; male efforts to improve their competitiveness in employment; employment core competence training has obvious competitive advantage. It is an urgent request of the current situation of university students and also is the key to solving the problem of college students’ employment.

Given the recent shift in the labor market away from job stability and toward ongoing task and role change, one may anticipate that career management talents—the capabilities needed to properly manage the initiative needed to proactively navigate the working career development method based on qualities like flexibility and continual learning—would be specifically discussed in discussions about employability and general skill policies and would take the front stage in academic curricula. However, there is proof to support implying that there is still room for students to strengthen their career management skills, mostly unrealized at universities (Watts, 2005), and a large number of graduates from universities are ill-equipped for the dizzying variety of changing work and training possibilities.

2. Design of Construction Methods of University Students’ Core Competitiveness Enhancement Model from the Perspective of Employment Competition

2.1. Analyzing the Causes of College Students’ Employment Core Competitiveness. College students’ employment choices are more and more diversified, and their employment vision is more and more broad, but there are still quite a number of college students whose employment concepts are not rational, lack of reasonable consideration of their current situation, and full cognition of the occupation. For example, some college students in the job hunting consider the immediate interests, while ignoring the long-term career development. Some college students will only focus on the state organs and institutions; noncivil service businesses cannot get employment. Some college students do not consider their own specific situation, single-mindedly adhere to the postgraduate entrance examination, and do not pay attention to any employer recruitment information. The choice of employment units, even if the unit is beneficial to its own development, is still due to vanity. Some students are too inferior, who think their professional graduate school has advantages than others, but ashamed of promoting themselves in the job, leading to a waste of good jobs. Some students have a poor sense of independence, in the employment of two-way choice in confusion, and completely rely on the arrangement of parents. What is more, they are required to find a job that is completely relevant to their major, believing that only in this way can they display their talent and ability.

Although college students have the freedom to choose their own way of employment and there is no right or wrong way in their employment concept, it can be seen that their employment concept needs further rationalization through the investigation of the sources of their employment intention and their recognition of the occupation they plan to pursue after graduation. The survey shows that although quite a number of college students have good self-awareness and are able to weigh their own conditions and objective environment to make rational employment choices, there are also many college students whose employment intentions come from their parents or blindly follow the example of other students around. For example, some parents believe that the civil service career is stable and secure, and they force their children to obey even though their own conditions are not suitable for it. For example, in recent years, the price of taking the postgraduate entrance examination has continued to heat up, but the passing rate of postgraduate entrance examination has not significantly improved. Many college students blindly join the army of postgraduate entrance examination without caring about the recruitment information of employers. As a result, they fail to take the postgraduate entrance examination and miss the great employment opportunity. University students’ employment conception should be rational; the performance of college students should also strengthen the cognition of professionals. Surveys show that the number of most college students for the future career cognitive degree is low. This is not conducive to the sustainable development of college students’ careers, nor to fully realizing their career ideals and values.

But the reality is that some colleges and universities in our country still use the traditional talent training mode. Talent training pays too much attention to unity, ignoring the development of students’ personality, paying too much attention to the transmission of knowledge, and ignoring the humanistic qualities, too much emphasis on professional education, and students’ narrow scope of knowledge. This indirectly leads to the similar professional quality and ability quality of graduates from many colleges and universities, without the core competitive advantage that can clearly distinguish them from other college students.
The number of students has increased significantly; the campus area, school conditions, and other hardware facilities have been greatly improved; the internationalization of teaching materials, the strength of teachers, and so on are obvious to all. China’s higher education is gradually from elite education to public education. In such a talent training mode, the students, regardless of professional skills or comprehensive ability and quality, cannot well meet the development needs of contemporary society, especially the development needs of the employment market, resulting in the lack of competitive advantages in the employment market; the core competitiveness of employment is not obvious.

Nowadays, China’s society is in a high-speed transformation. Some old social values have begun to be abandoned, but the new social values have not been completely established. Therefore, contemporary college students bear the brunt in the historical stage of deconstruction and reconstruction of values, lacking the guidance of wise men; they are bound to fall into spiritual confusion and hesitation. Just at this time, the three materials include money worship thought, utilitarian thought, and hedonism thought, although college students live in the ivory tower but cannot be divorced from the whole social environment. In today’s information explosion, no one can be influenced by the changes in the overall social environment.

It exists widely in people’s social life, not only in the most common areas of people’s social life, such as clothing and clothing, but also in entertainment, communication, and other aspects of human participation in social life. Because of the special nature of fashion, such as temporary, fanatical, fashionable, and other characteristics, people’s behavior orientation will be shown in the form of social fashion movement. This influence on college students’ view of employment is not negligible.

The negative social environment will cause the narrowness of college students’ ideology and deviation of behavior orientation. In general, the social environment has a profound impact on college students, both in thought and in action ability. Along with the social influence of utilitarianism and hedonism thought and erosion, some contemporary college students, with the values of apparent tendency of utilitarianism, only pay attention to practical and effective, centered on the realization of self-worth, too much for the present short-term interests, ignoring the long-term career development planning, nor the spirit of dedication for the people of the society. Some college students do not find jobs according to their own interests and characteristics and blindly pursue comfortable environment and good welfare pay jobs, resulting in their high ambition and low hand, the serious lack of collective thought and dedication to society, and the formation of distorted employment values.

In addition to the influence of the mode of talent cultivation in colleges and universities, the guidance and influence of family education, and the social environment, the main reason for the lack of the core competitive advantage of college students in employment and the general lack of competitive advantage in the employment and labor market is the individual college students. At present, college students generally live in a comfortable and comfortable environment. Some college students even live in favorable living conditions. They do not need to worry about their work units after graduation, which leads to a considerable number of college students lacking the sense of employment competition. Some college students muddle along in the four years of college, idle away their time, do not actively pursue progress, and lack competitive awareness, thinking that as long as they get the graduation certificate, the problem of finding a job after graduation is what their parents and family should worry about. As we know, consciousness is the source of action, and the lack of college students’ employment competition consciousness directly leads to their quality and ability status being not optimistic.

The lack of competitive consciousness about university students’ employment is in addition to the influence of family and the environment. Students only focus on money and honor awards, do not take the initiative to fully combine the development of their own ability and quality with the future employment, only passively accept the recruitment notice issued by the university’s employment website in the graduation season, and do not take the initiative to obtain employment market information.

2.2. Designing the Path to Enhance College Students’ Employment Competitiveness. Specifically, in the aspect of the construction of the curriculum system, besides the opening of a necessary professional required course in university, they should increase the proportion of elective courses, and especially about elective courses, to promote the employment force of general core courses, they should encourage interdisciplinary cross-major courses, let students choose their courses and the space of autonomous learning, and improve the students’ knowledge structure, encouraging students to actively participate in scientific research, attaching importance to the design of graduation thesis, and training students’ ability to do scientific research innovation. Entrepreneurship education courses and public compulsory courses and elective courses for entrepreneurship education are offered throughout the university. International entrepreneurship training courses are introduced, and students are organized to participate in activities such as “challenge cup” entrepreneurship plan competition or extracurricular scientific and technological academic works competition to cultivate students’ innovation and entrepreneurship ability.

In terms of teaching methods, colleges and universities should pay more attention to case teaching, classroom discussion, problem teaching, and reading guide of the use of teaching methods, such as the authority of the change of a single infusion of teaching mode, and cultivate students' active participation, active thinking, and the ability of autonomous learning.

The employment guidance and service department is an indispensable student work department in colleges and universities, which undertakes the employment management, career guidance, and service of college students. The scale and level of the employment faculty are also directly related to the level of employment guidance and service of colleges and universities and directly affect the employment guidance and service of individual college students.
Career planning is an arrangement and strategy for individuals to determine development paths, growth goals, and career preferences based on their own personality, psychology, ability, and accomplishment, integrating internal and external development environment and finally realizing their career ideals and values. College students do career planning in advance, which is conducive to fully understanding themselves, clear development goals and direction, and targeted training of relevant employment ability, for improving the core competitiveness of employment which plays an important role. The process of college students’ career planning is a process of self-cognition, self-education, and self-motivation and also a process of improving self-efficacy.

Colleges and universities should provide the whole process of career planning education, that is, to provide systematic career planning education for all college students from freshman to graduation. In particular, a large stage requires students to master the concept of career planning for career exploration, by setting up career planning education, mental health education, environmental adaptation education courses, or lectures of cultivating college students’ good self-cognitive ability, making its preliminary understanding their own career interests, values, potential ability, personality traits, and development intention, by learning professional knowledge, establishing interest and love for the major, clarifying the training objectives and employment direction of the major, and understanding the professional employment prospects and labor market related information. In the second year, career positioning and target positioning should be made based on career exploration, detailed action plans, and strategies, and one or two career choices or preferences should be determined. The third year focuses on cultivating college students’ ability and quality related to career development decision-making, obtaining academic or qualification certification related to knowledge and skills, and constantly improving their professional skills, professional quality, and psychological quality through summary and reflection. Senior stage focus is to test their career choice, or occupational preferences are appropriate, through the accumulation of professional learning and practice, to measure their own employability, meet the professional development needs, timely adjust the career development strategy, and finally clear career development goals.

The employment guidance and service departments of colleges and universities should have the following functions. Firstly, formulate opinions on the employment of college graduates in accordance with the national employment guidelines and policies. Secondly, carry out the entrepreneurship of university students’ employment guidance education, such as freshmen education, graduate education, and full employment guidance work, for the entire school students’ career planning education and entrepreneurial organizations to carry out the employment guidance course, students’ vocational ability tests, and vocational skills training, coordinating resources, face-to-face, for students’ employment consulting services, etc. Thirdly, collect and release effective employment information, establish information database of employers, promote students’ employment through online communication, online recommendation, and online recruitment, and do a good job in online employment guidance and services. Fourthly, carry out market research, analysis, forecast and grasp the national employment situation and market dynamics, to search for graduate employment demand information, consolidate and expand the employment market, consummate employment and entrepreneurship practice base construction, and arrange campus recruitment talk; graduates will choose recruitment activities such as buyer and seller and meticulous and thoughtful service for the unit of choose and employ persons and graduates. In order to realize the above functions, the employment guidance and service departments of colleges and universities must have a clear division of labor and fulfill their responsibilities.

The level of employment faculty directly determines the level of employment guidance and service in colleges and universities, which has an important impact on the promotion of college students’ employment core competitiveness. College employment teachers generally include career guidance course teachers, college counselors, and employment guidance and service department staff. Colleges and universities should set up a high level of professionalization and specialization of teachers’ employment, surrounding the course of employment, career planning and employment guidance, employment counseling for college students to provide effective guidance and the high quality service, to help college students adjust to employment concept, improve professional ability, clear career choice, and master relevant policies and market information, improve the employment quality and competitive advantage of college students. For the rich employment of colleges and universities, to improve the level of employment and the practice of the teaching staff, outside, career guidance teachers should strengthen the studies and especially strengthen cross majors to learn, master of psychology, management, law and economics, and other disciplines basic knowledge; skilled professional evaluation work provides consultation service for employment, taking an active part in the professional qualification training and obtaining the professional qualification certificate, persisting in visiting employers and investigating the job market, actively participating in interschool exchanges and investigations, and improving the professional level of vocational guidance and services.

Higher education has the function of promoting the development of individual personality. By promoting the formation of the subject consciousness and the development of the subject ability, it can promote the full development of individual differences. They have their own distinctive points and have super competitive advantages in different industries, which is also one of the goals of talent cultivation in colleges and universities. Therefore, colleges and universities should first respect the personality differences of college students, guide them to cultivate good self-cognition ability and vocational cognition ability, cultivate core competitive ability in employment matching with personality characteristics, and form their own irreplaceable and imitated competitive advantage in employment, through the platform.
structures. Secondly, introverted students focus on cultivating execution, and extroverted students focus on leadership development. Innovation ability is any personality characteristics of college students that should strengthen the ability of ascension. Finally, colleges and universities must change cramming education mode, respect different students’ differences in personality and ability, and pay attention to the differences in talent training. College students express performance using platform and space, to fully show the personality of college students, enhance students’ self-confidence, and improve their job competence and compatibility.

2.3. Building a Model to Enhance College Students’ Core Competitiveness. In order to improve university students’ employment core competitiveness, to solve the employment problem, on the basis of the competitiveness of the ascension path design of the college students’ core competitiveness promotion model, first, we need to know the parameters of the calculation model, the school as the education system of the micro unit, its macro forecast, and the ability to grasp the market demand, after all, limited. And because of the higher education, talent cultivation has a long period and needs a process. It is hard to see the effect in the short term. There are talent lag coefficients, as shown in

\[ g = b_k - r, \]  
\[ g_0 = g(k - r). \]  

In formulas (1) and (2), \( b \) stands for teaching index, \( k \) stands for teaching environment factor, \( r \) stands for teaching status factor, and \( l \) stands for correlation coefficient. It is difficult to avoid disconnection between talent cultivation in colleges and universities and market demand. At present, many colleges and universities will also actively explore the reform of talent training scheme and teaching mode, but due to the effect of various factors, the implementation of the practice teaching is more difficult, the teaching method of discussion and communication is not enough, school is affected and restricted by the objective conditions and equipment, and facilities are relatively lacking, leading to teaching reform effect being not ideal, affecting the employment competitiveness of graduates. In this case, it is necessary to calculate the environmental coefficient of the model, as shown in

\[ m = \frac{1}{g - g_0}, \]  
\[ m_1 = 1 - \frac{1}{g - g_0}. \]  

In formulas (3) and (4), existing in many colleges and universities, ideological and political education forms a single, lacking of vitality, hollow phenomenon. First of all, ideological and political education results are not ideal. At this time, ideological quality indicators need to be designed, as shown in

\[ d = \sqrt{ce}. \]  

In formula (5), \( c \) on behalf of the student thought index and \( e \) on behalf of the general coefficient of ideological and political education in colleges and universities are the main forms of the political theory course and students work a series of the teacher’s daily education and management activities. Students are supposed to be close to the social reality of ideological and political theory, can reflect the social reality, and really take the student as this. Thus, it can be effectively improved to meet the needs of the society. The core competitiveness improvement model based on this design is shown in

\[ E_0 = \frac{\sqrt{ce}}{m}, \]  
\[ E = \frac{g - g_0}{\sqrt{ce/m}}. \]  

The detection and control in the implementation of training programs are mainly carried out from two aspects, strengthening teaching management and combining production, learning, and research. Colleges and universities should extensively absorb and draw lessons from domestic and foreign educational theories and achievements, strengthen the construction of teachers, and formulate scientific quality management and control plans.

3. The Example Analysis

3.1. Overview and Preparation. Factors affecting college students’ employment competitiveness include internal and external factors. This study focuses on the impact of internal factors on college students’ employment competitiveness, so the designed employment factors are shown in Table 1.

According to the influence of employment factors in Table 1, there is no unified standard for the constituent elements of college students’ employment competitiveness, and the basic structure of individual influencing factors of college students’ employment competitiveness can be concluded, as shown in Figure 1.

It can be seen from Figure 1 that individual influencing factors of college students’ employment competitiveness can be divided into four subsystems, ideological and moral quality, professional quality, work skills, and psychological quality. Among them, ideological and moral quality, work skills, and psychological quality belong to the quality and ability outside professional, also known as “nonprofessional quality.” Ideological and moral quality is divided into responsibility consciousness, professional dedication, teamwork consciousness, and employment concept for aspects. Professional literacy includes four aspects, professional knowledge, professional skills, information literacy, and scientific research ability. Job skills include interpersonal skills, communication and expression skills, teamwork skills, learning and innovation skills, comprehensive application of knowledge, hands-on skills, organizational management skills, and analytical and problem-solving skills. Psychological quality can be reflected from frustration tolerance, adaptability, and try mentality. Among these four factors, moral
quality is the foundation of human being. Professional quality is the foundation. Only by constantly improving professional quality, college students can be more “connotation.”

Working skills are powerful tools. Only by constantly improving working skills can college students have a better foothold in the workplace. Psychological quality is the key. Only with excellent psychological quality can college students effectively resist pressure, stand up to setbacks, quickly adapt, and integrate into the society.

Table 1: Influence table of employment Factors.

| Factors                                              | Ability                                                                 |
|------------------------------------------------------|-------------------------------------------------------------------------|
| Personal ability and comprehensive accomplishments   | Comprehensive use of knowledge, interpersonal skills, practical skills,  |
| The psychological quality                            | professional skills                                                     |
| Stealth                                              | Ability to withstand setbacks                                           |
| Dominant                                             | Scientific and cultural quality                                         |
| Core competitiveness                                 | Interpersonal communication skills                                       |
|                                                      | Learning and innovation ability                                         |

Table 2: Reliability analysis.

| Sampling | Measure | Chi-square |
|----------|---------|------------|
| 1        | Df      | 2110.165   |
| 2        | Sig     | 105.564    |

Table 3: Sample statistics.

| Project      | Options        | Frequency |
|--------------|----------------|-----------|
| Gender       | Male           | 160       |
|              | Female         | 224       |
|              | In grade one   | 152       |
|              | In grade two   | 128       |
| Grade        | In grade three | 90        |
|              | In grade four  | 4         |
|              | Economy class  | 116       |
|              | Management class | 54      |
| Professional | Engineering class | 192    |
|              | Literature class | 10      |
|              | Art class      | 12        |

Figure 1: Schematic diagram of influencing factors of employment competition.

Figure 2: Sample performance curve.

Figure 3: Satisfaction degree of sample scores.
team of the secondary departments. A total of 10,864 registered volunteers were required to conduct reliability analysis first, and the analysis results are shown in Table 2.

It can be seen from Table 2 that the questionnaire adopted in this paper has good reliability and validity and is an effective measurement tool suitable for the study in this paper. At this time, it is necessary to conduct statistics on selected student samples, as shown in Table 3.

It can be seen from Table 3 that the selected samples meet the requirements of subsequent model testing, and their performance curves are shown in Figure 2.

It can be seen from Figure 2 that the results of the student sample are in a relatively stable state. At this time, students’ satisfaction with the results is studied, as shown in Figure 3.

It can be seen from Figure 3 that students’ satisfaction with their scores is generally low, so competitiveness hypothesis needs to be carried out, as shown in Figure 4.

It can be seen from Figure 4 that the samples currently selected meet the subsequent testing standards of competitiveness model and can be carried out in subsequent testing experiments, which need to use competitiveness improvement indicators. The calculation formula is shown in

\[ P = \frac{\sqrt{B}}{R}. \]  

In formula (8), \( B \) represents the competitiveness factor and \( R \) represents the competition base, which can be used to accurately evaluate the competitiveness improvement effect of the designed model construction method.

3.2. Application Effect and Discussion. The core competitiveness improvement model design method designed in this paper is compared with the traditional core competitiveness improvement model construction method, and the competitiveness improvement indicators of the two are calculated. The calculation results are shown in Table 4.

It can be seen from Table 4 that the competitiveness improvement index of the competitiveness improvement model designed in this paper is higher than that of the traditional competitiveness improvement model construction method, which proves that the designed method is effective and has certain application value.

4. Conclusion

The core competitiveness of college students’ employment is not simply the superposition of various abilities and qualities, but the superior ability with its own good personality characteristics, with integrity, comparison, uniqueness, relative stability, and sustainable development. The composition of college students’ employment core competitiveness includes five aspects, which are rational employment concept, good psychological quality, excellent professional accomplishment, rich practical experience and excellent professional ability. Different from those of other researchers, this article will also employment concept into the composition of the core competence of university students’ employment system. In time, according to the development of college students’ employment concept, you will be able to master the initiative in the tide of competition for jobs and strive for more employment opportunities and development space.

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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