

Research on the Employment Education System of Colleges and Universities From the Perspective of Supply Chain Management

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ABSTRACT

Supply chain management is the key strategy of modern enterprise operation and management mode, which is to improve customer satisfaction and enhance the core competitiveness of enterprises as the main goal, through the optimization and integration of internal and external resources of enterprises, and then achieve the highest efficiency of the overall supply chain of a dynamic alliance system. It is also an operation and management idea that integrates resources and cooperates with the main body. In modern supply chain management, the basic elements that affect the value-added of enterprises are divided into two types: main elements and supporting elements. Similarly, the employment education system of colleges and universities is also divided into two kinds of main activity elements and support-type activity elements, and the main activity elements mainly involve discipline setting, curriculum setting, employment guidance and consulting services; The support activities mainly involve corporate publicity meetings, job fairs, professional competitions, vocational training camps and other activities. Whether it is the main activity or the support activity, "employment education" is regarded as the core goal, highlighting the employment function of the talent training model. This paper analyzes the main factors of the general employment difficulties of Chinese college students at this stage, points out the necessity and feasibility of supply chain management for the employment of Chinese college students, and proposes five ways to apply supply chain management theory to the employment education system of colleges and universities. The author hopes that through the in-depth study of this topic, it can put forward more effective ways to deal with the current severe employment situation and the contradiction between supply and demand, open up more innovative management thinking for promoting the employment of Chinese college students, and then improve the theory of university supply chain management.

Keywords: *Colleges and universities, Supply chain, Management, Employment, Education.*

1. INTRODUCTION

Employment is the foundation of people's livelihood and the basic premise and way for the people to improve their living standards. Promoting employment is an important strategic task related to the overall situation of reform, development, and stability. University graduates are an integral part of the labor supply of the whole society, but also an important factor of production, and their employment needs to be allocated through market mechanisms.

According to the data released by the Ministry of Education, ("Figure 1") the total number of ordinary college graduates in China in 2022 is 10.76 million, an increase of 1.67 million over 2021. With the sharp increase in the number of college graduates, the employment problem of college students has become increasingly serious, and college graduates have gradually emerged signs of "difficulty in employment". Since 2021, China's national economy has shown a sustained and stable recovery trend, laying a solid foundation for stable employment, but the deep impact of the epidemic on China's job market is still continuing, and the employment situation of national college graduates

in 2022 is still complex and severe. How to solve the problem of employment difficulties for college graduates has become a topic that needs urgent research. In today's society, the level of science and technology is developing rapidly, job positions and requirements are constantly changing, and if college graduates want to get the desired job, their employability must meet the requirements of employers, that is to say, the cultivation of college students' employability must be oriented to social needs. At present, there is a disconnect between the cultivation of the employability of college students and the social demand (market), which is also one of the main factors leading to the difficulty of

employment of college students. Market-oriented, this is a proposition in the economic field and the enterprise field. Supply chain management is currently one of the most advanced economic and enterprise management technology, in the supply chain management mode, enterprises can find the most suitable partner in the shortest possible time, with the lowest cost, the fastest speed, the most perfect quality to win the market, benefiting not only individual enterprises, but all enterprise groups in the entire supply chain[1]. Applying supply chain management methods to employment in higher education is the direction of this article.

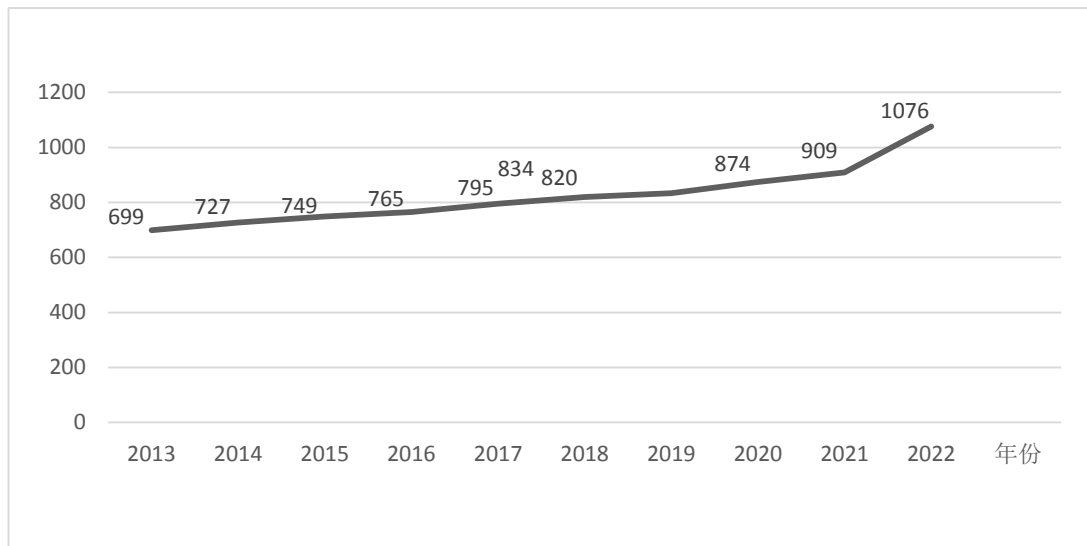


Figure 1 The number of college graduates in China has changed in the past decade. Number of people (10,000 people).

2. LITERATURE REVIEW

The idea of supply chain and supply chain management originated in the 1980s, and the academic term "supply chain management" was first defined from a theoretical point of view in 1990. In 1995, the magazine "International Production Planning and Control" published a special issue on "Supply Chain Management", and in the same year, "Management Science" began to open a column with "Supply Chain Management" as an independent research field from the fourth issue. In 1996-1997, the Supply Chain Management Association was established, and the early research on supply chain and supply chain management in the world was mainly to solve the problem of supply chain operational efficiency. With the rapid development of high-tech information technology, the research focus has shifted to the supply chain

management as a strategic management system to study, the alliance strategy of the supply chain has become a new development of supply chain management research, the combination of supply chain management and information technology has also become a new direction of supply chain management theory research, Chinese scholars have studied the supply chain of higher education, Ji Xu and Liu Yining proposed the construction steps of the education supply chain; Ma Yonghong and Liu Lian studied the particularity of the higher education supply chain and its multi-chain structure Wu Huijiang proposed the concept of talent supply chain and talent supply chain management in colleges and universities: Zou Changcheng and Gao Hui studied the supply chain structure and its bullwhip effect in higher education. In general, there are few research results on the supply chain and supply chain management of higher education, and the most concentrated research is mainly

concentrated in the following two aspects: one is the research on the characteristics of higher education with supply seams and supply chain management itself; the other is the research on talent training mode based on higher education[2].

3. METHODOLOGY

3.1 Theories and Methods of Supply Chain Management

Since the concept of supply chain was proposed in the 1980s, supply chain management has been widely used as a new modern enterprise management concept. In the early days of the birth of supply chain management theory, it is generally believed that supply chain management is related to the internal management of manufacturing enterprises, which is the management process of manufacturing enterprises for raw material procurement, parts production, product combination processing, product transportation, sales and other entire production and operation links, which leads to the traditional supply chain management theory mainly applied within the enterprise. There are great limitations. Enterprises often only focus on their own development and

ignore the development of upstream and downstream enterprises. They do not establish close contact with upstream and downstream enterprises and also lack of global awareness and long-term vision. With the passage of time, the economy, society and science and technology are developing rapidly, the production and operation of all walks of life have also undergone a collective qualitative leap, and the supply chain management concept is no longer limited to the original manufacturing industry, began to penetrate into other industries, enterprises and enterprises began to have close contact, enterprises not only pay attention to their own development, but also pay close attention to the external environment of enterprise development, at this point, the production, sales, transportation, etc. of various industries began to establish effective connections, and the supply chain management theory began to gradually improve[3]. Continuously extending the scope of application, it plays a major role in various industries. Nowadays, supply chain management theory has become an important means for manufacturing enterprises to reduce production costs, improve product quality, respond quickly to the market, improve service levels, and win enterprise competition.

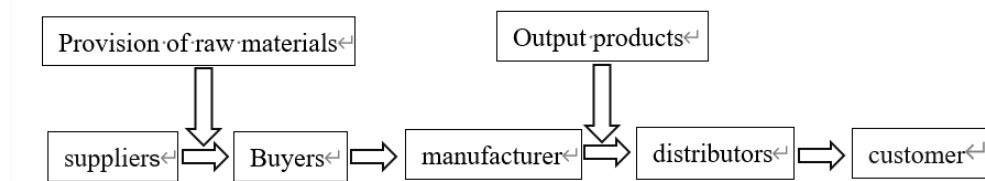


Figure 2 Basic model of an enterprise's supply chain.

As shown in "Figure 2", the enterprise supply chain refers to a chain or network of all nodes from "raw material supplier - buyer - manufacturer - seller - customer", and the neighboring nodes show a supply and demand relationship with each other. Supply chain management is the sum of various activities and processes that plan, operate, coordinate, control and optimize the entire supply chain system as a whole, and the goal of supply chain management is to send the products required by customers to the specified place on the specified date, in accordance with the specified quantity, qualified quality and correct state, and to control the total cost in the scope of minimization.

3.2 Research on the Employment Supply Chain of College Students

The research and application of supply chain management theory in the education industry has only begun to emerge in recent years. Based on the connotation of the supply chain and the characteristics of employment education in colleges and universities, the higher education supply chain can be defined as: around the main body as the core, through information flow, talent flow and control, from enrollment to talent training, and finally the whole process of outputting graduates to meet the social demand for talents, integrating universities, talent markets and social needs into a full-featured network chain structure model. By integrating and sharing the resources and information of each node in the supply chain, we can quickly and accurately

meet the needs of society for talent and knowledge services, thereby enhancing the teaching effect of employment education, improving the employment

rate of college students, improving the employment quality of college students, and enhancing the core competitiveness of employment and education.

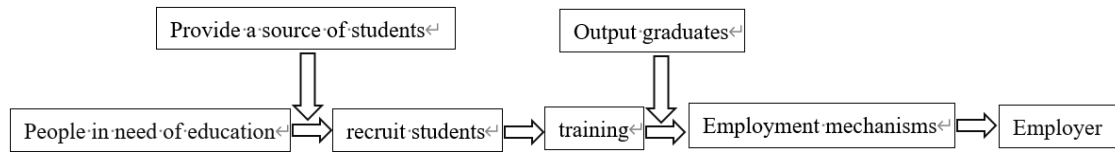


Figure 3 Basic model of the higher education supply chain.

As shown in "Figure 3", the basic model of higher education supply chain is very similar to the basic model of enterprise supply chain, but the biggest difference between higher education supply chain and enterprise supply chain is that the former must meet the needs of society and recruiters for talents, and also meet the graduation needs of students as "raw materials". The higher education supply chain is composed of five major nodes: the demand group that purchases higher education, the enrollment, the training, the employment and the talent demand group. The "demand group for purchasing higher education" is the main supply node of the entire higher education supply chain, in which the family economic situation of the group is mainly examined, and their awareness of the university brand is understood, and the purpose of the university is studied. "Enrollment" is the main procurement node of the higher education supply chain, which is based on the education authorities and colleges and universities, involving high schools, secondary vocational schools, etc., and also follows the national enrollment policy and enrollment plan. "Education and training of students' knowledge and skills in colleges and universities" is the education and training node of the higher education supply chain, which is the core node of higher education, and colleges and universities need to combine their own characteristics and take social needs as the guide, determine the specific training programs of each major, and educate and cultivate students' knowledge and skills. There are two sub-chains that operate at the same time at this node: one is the educational processing of students by colleges and universities; the other is the self-processing process of students, that is, students are educated and processed at the same time, according to their own needs, preferences and other self-constructed knowledge and cognitive systems, forming their own unique knowledge structure and concepts. At the node of education and training, colleges and universities should take the cultivation of

employability as the core, reform the training link, and encourage and guide students to build their own knowledge system. According to the needs of society, the structure of employability training is studied, and a model of employability structure is constructed that meets the conditions of universities themselves and the needs of society[4]. "Employment link" is the sales node in the chain of higher education, is the key node connecting education and social needs, its function is mainly to sell college education products (graduates) to meet the talent needs of employers: it also has the function of information feedback, and timely feedback back to colleges and universities to promote colleges and universities to improve education and training links. At this juncture, it is necessary for all teachers and students of all departments and secondary colleges of colleges and universities to grasp the employment of students as the central task of the survival and development of colleges and universities, to enhance the employability of college students and realize the full employment of college students, to give full play to the guidance, bridge and incentive functions of the school on employment issues, to integrate the advantages through collective wisdom and efforts, and finally form a joint force to continuously improve the employment rate and employment quality of graduates. The "employer" is the end of the higher education supply chain and the destination for the output of higher education products (graduates). The higher education supply chain must not only meet the needs of society and employers for talents, but also meet the personal needs of college graduates to realize their self-worth and use their learning in the jobs they want. Therefore, at this node, colleges and universities should attach importance to the requirements of society for the employability of graduates, and use this as the basis for education and training, actively build a new type of employability structure model, further improve the discipline setting, training mode and employment guidance, and enhance the

employment competitiveness of college graduates[5].

4. RESULTS AND DISCUSSION

According to the above theory, the most important link in the supply chain management of

colleges and universities is to build a new employment and education system. The author believes that through the following five measures, the development of the employment education system can be effectively promoted. ("Figure 4")



Figure 4 Five measures to improve the employment and education system of colleges and universities.

4.1 Full Coverage of Career Planning and Employment Guidance Courses

High-level career planning and career guidance courses play a very key role in clarifying the learning goals and direction of efforts of college students, establishing correct learning attitudes and career concepts, and improving employment competitiveness. From the beginning of student enrollment, career planning and career guidance courses can fully cover the entire university process of students. In the form of classroom teaching, small class teaching, team group teaching and other methods can be adopted to enable students to get full attention from teachers in the classroom, and at the same time can improve students' classroom participation and enthusiasm; online courses or MOOCs can also be set up, so that students can enjoy more high-quality teachers and teaching resources that cannot be accessed offline; in terms of teaching methods, it is necessary to carry out experiential teaching, and adopt a variety of teaching methods such as debate, speech, mock interview, case analysis, etc. Students are inspired

and motivated in situational experience and hands-on training. In terms of teaching content, we pay attention to the training of general skills for employment, such as special training in expression ability, special training in listening ability, special training in teamwork, special training in innovative practice, etc., and carry out activities such as debates, leaderless group discussions, role plays, etiquette training, and innovative project roadshows[6]. At the same time, the setting of teaching content should also be based on the principle of full-process teaching, and the corresponding appropriate curriculum content should be designed according to students of different grades. At the same time, we should combine the characteristics of schools, industries and regions, pay attention to the dynamics of the talent market and the needs of employers, optimize the curriculum settings, and improve the employability of college graduates.

4.2 The Whole Process of Publicity Meetings, Job Fairs and Lectures Will Be Completed

During the job search period, graduates generally obtain employment information from the following channels: First, campus special lectures. This is the most powerful recruitment method, usually by a company in the school to hold a recruitment for the purpose of publicity, mainly for college graduates to introduce the company's current situation, company values, company development prospects, salary, career development, recruitment process, job introduction and other information. The second is a large-scale job fair in the comprehensive category of campus. This type of job fair is generally organized by the university itself, and after screening by the school employment service department, multiple enterprises are gathered together to carry out recruitment activities at a time. According to the number of enterprises participating in the job fair, it can be divided into large, medium and small job fairs. The third is employment lectures[7]. Schools generally hire industry leaders or human resources experts to introduce students to the current situation of various industries and the requirements for employment, so that graduates can purposefully prepare for jobs. In the job search season, colleges and universities should take the initiative to make all kinds of publicity meetings, job fairs and employment lectures full-process, and at the same time, they should seriously verify the qualifications of enterprises participating in publicity meetings and job fairs, follow up on the employment situation of graduates at any time, actively protect the rights and interests of students, and provide a good guarantee for the employment of graduates.

4.3 Vigorously Carrying out Innovation and Entrepreneurship Competitions — Using Races To Replace Training and Competitions To Train, and Improve Students' Employ Ability

With the proposal of the national strategy of "mass entrepreneurship and innovation", domestic colleges and universities have set off a wave of innovation and entrepreneurship education, creating a good atmosphere for innovation and entrepreneurship competitions. The double creation competition has a profound impact on the upgrading of the industry, the ability exercise of participating students, the transformation of project

achievements, and the ideological guidance of college students. The double innovation competition is an effective way to realize the national innovation-driven strategy, an important means to improve the employability of college students, and a strong guarantee for promoting the high-quality employment of college graduates. At present, colleges and universities generally offer career planning and employment guidance courses, but they are somewhat inadequate for the cultivation of employability with such a wide range, it is difficult to achieve the expected effect of meeting the talent needs of social development, and it is even more difficult to complete the implementation requirements of the national innovation-driven strategy. The improvement of college students' employability needs to start from the cultivation of students' professional and technical abilities and core qualities, and the content that needs to be cultivated covers a wide range, involving general education, professional education, practical courses, etc. The development of the double creation competition can cultivate the comprehensive literacy, hands-on practice, teamwork, language communication and other aspects of college students' ability. Domestic scholars generally believe that the double creation competition has a positive effect on the social orientation function, eyeball aggregation function and competitive function. Colleges and universities cannot simply regard the double creation competition as a competition, but should regard it as a platform for cultivating students' knowledge, skills and comprehensive quality based on school-enterprise cooperation, integration of industry and education, and combination of engineering and learning[8]. Colleges and universities should attach great importance to the improvement of the ability of college students in all aspects of the double creation competition, and guide students to actively carry out innovation and entrepreneurship practice. At the same time, colleges and universities should improve the construction of mass creation spaces, innovation workshops, and innovation and entrepreneurship practice bases, and encourage real work. Colleges and universities should actively cooperate with enterprises and the government to provide all aspects of conditional support for the incubation and landing of student double-creation projects. The relevant departments of the school can try to establish a cooperation platform for the transformation of achievements to achieve product innovation, scientific and technological innovation, and education innovation under the double creation competition. The effective transformation of the

results of the double innovation competition will form a benchmarking effect and play a positive role in promoting the atmosphere of innovation and entrepreneurship in the school. It is necessary to fully mobilize the enthusiasm of students through the double creation competition, so as to achieve the purpose of improving students' employability.

4.4 Vocational Training Camps, Team Counseling — Classified and Refined Guidance for Employment

Career training camp is an important form of group career guidance, which can comprehensively improve the professionalism of college students and help them understand what is truly professional from the aspects of thinking style, role positioning, service awareness, and work mentality. Through training, it is necessary to let the team "professional, commercial, dedicated", let the team understand the norms of the profession and workplace rules; through the training, let the students understand the standards of professionalization, establish a sense of professional honor, clarify the professional way of work, enhance the sense of responsibility, improve work efficiency, so that they become "both physical and spiritual, both inside and outside" professionals. It is also necessary to do a good job in career planning goals, so that students can learn professional knowledge in a directional manner during the school period, enhance professional skills, and achieve the goal of "combining engineering and learning" in the cultivation of high-skilled talents. Running vocational training camps helps college students to truly appreciate the gap between ideals and reality, prompting them to combine career planning with future development, base themselves on the present, plan for the future, take action, and evaluate feedback according to the actual situation, and constantly revise and adjust their personal career plans. All kinds of problems and groups of people encountered in vocational training camps can cultivate the ability of college students to cope with various complex problems that arise in the work, enhance their sense of self-efficacy, make career decisions with more positive and effective thinking, and solve problems at all stages of their careers. At the same time, vocational training camps are beneficial for college students to test their own professional competence, through the test of their own ability, to find out the gap between the needs of employers and their own comprehensive quality, so as to make the best use of their strengths and avoid weaknesses, find out the positioning, improve their employability in a

targeted manner, and optimize job search behavior[9].

4.5 One-on-One Career Counseling

One-on-one counseling works best in career coaching. Since each student's own circumstances are different, they need different career guidance. Due to the concentration of various stimuli on the eve of graduation, graduates are prone to abnormalities in emotions, thinking and even behavior, which is actually a concentrated exposure of graduates' psychological problems. Career guidance institutions in colleges and universities should carry out popular lectures on psychological problems that arise in employment, and guide graduates to correctly evaluate themselves, understand society, and correctly treat success and failure. For individual serious cases, they should be referred to the school's psychological counseling center to alleviate their psychological pressure and rebuild their self-confidence in employment through in-depth communication and necessary treatment. In career counseling, the exploration of career values plays a very important role, once college students have clear career values, there is a general career direction, counselors or employment specialists and then according to the student's personality, career interests and other comprehensive factors, to help college students find a more suitable development direction. The method of career value exploration is more flexible, and the specific method or method used by counselors or employment specialists in counseling can be decided according to the state of the college student at that time.

5. CONCLUSION

This paper systematically reviews the current situation of employment, supply chain and supply chain management, higher education supply chain and application, combined with the traditional higher education supply chain management theory, analyzes the reasons for the employment difficulties of college students, puts forward the necessity and feasibility of supply chain management for college students' employment, puts forward the full coverage of career planning and employment guidance courses, publicity meetings, job fairs, lectures, and vigorously carries out double creation competitions - training by competition, training by competition, improving student employability, Vigorously carry out innovation and entrepreneurship competitions - use races to replace

training and competitions to train, and improve students' employability, one-on-one career counseling and other five ways and means to promote the development of the employment education system. The research on this topic provides a reference for the employment management of college students, enriches the content of supply chain and higher education supply chain management, and explores new ideas for the employment of college students, which has important social significance and practical significance.

AUTHORS' CONTRIBUTIONS

Hao Wang is responsible for the overall design and writing of the thesis, Chunwen Ren is responsible for analyzing the data, Cheng Zhen is responsible for collecting literature and sorting out research data, and Lin Lin participated in the revision and editing of the paper.

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