

Research on the Driving Factors and Models of School–Enterprise Cooperation in Economics and Management Majors of Universities*

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Abstract—As a form of cooperative education, school-enterprise cooperation has been paid more and more attention by Chinese education circles. The economics and management majors of the university belong to the social science with strong applicability. The personnel training and positioning of these majors must put the actual demand of enterprises in the important position, and pay attention to the cultivation of the practice and the application skill. On the basis of consulting a large number of literature on school-enterprise cooperation in China and foreign countries, this paper studies the connotation and value of school-enterprise cooperation. This study, from the perspective of market, government, enterprises, universities, students and so on, summarizes a comprehensive set of factors for driving school and enterprise cooperation. Then, this paper makes a series of research on the cooperation models and mechanism construction of economics and management majors in applied universities. The purpose of this study is to explore the deep cooperation mechanism between universities and enterprises, which is not only suitable for the reality of talent training in universities, but also reflects the distinctive characteristics of economics and management, and complements each other with other disciplines.

Keywords—*school-enterprise cooperation; economics and management majors; driving factors; cooperation model; stakeholders*

I. INTRODUCTION

In recent years, the reform and development of higher education in China has ushered in an unprecedented good environment and opportunities. At the same time, the reform and development of higher education in China is also facing unprecedented pressure and test. The most striking contradiction between science and technology development and higher education is the contradiction between high-tech and low-quality. If this problem is not solved, it will be difficult for higher education to adapt to the objective needs of society and to give full play to its role in promoting the development of the national economy. Therefore, the cultivation of talents has become the standard to measure the quality of higher education.

Nowadays, the standard of measuring talents in society shows a trend of diversification. In addition to the top innovative talents, it is more necessary to supplement a large number of applied talents with technological innovation consciousness and ability, solid professional theory and strong operational ability, which can immediately adapt to enterprise jobs, improve production capacity and technical content, and solve enterprise problems. In this background, the key to the sustainable development of the applied undergraduate universities lies in the way of school-enterprise cooperation. They should take the cultivation of people with both practical ability and innovative spirit as the starting point and destination of educational reform and development.

National and local governments also focus on school-enterprise cooperation. The outline of the National Medium and Long Term Education Reform and Development Plan (2010/2020) promulgated by the State Council proposes that the government should play a guiding and supporting role in rational planning, allocation and utilization of higher education resources. The government should construct a cooperative platform for the deep integration of colleges, universities and enterprises, and explore the establishment of a talent training system in which higher education, and industrial development and employment are closely integrated. Therefore, the cultivation of applied and compound talents has been put on the agenda of national undergraduate education, and school-enterprise cooperation is an effective way to achieve this goal. In addition to encouraging and supporting school-enterprise cooperation at the national policy level, local governments also respond positively to national policies. The local government explores the platform construction, cooperation models and obligation of school-enterprise cooperation from the reality of the region.

The majors of economics and management belong to the outstanding study in the field of social science, and it is also an important field of school-enterprise cooperation in universities. How to meet the needs of enterprises, stimulate the internal enthusiasm of enterprises to participate in the cooperative education of economics and management, and form a two-way interactive and virtuous circle of school-

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enterprise cooperative education is an important topic worthy of study.

II. THE VALUE AND CONNOTATION OF DEEP SCHOOL-ENTERPRISE COOPERATION OF ECONOMICS AND MANAGEMENT MAJORS

A. *The Value of Deep School-Enterprise Cooperation in Economics and Management Majors*

The economic development is already in the state of new normal, and higher education has also entered the stage of popularization, so this external situation also has new requirements for the training of talents in universities. Professionalization has become an inevitable trend of development. Applied universities are an important part of talent training. The most important thing in their development lies in effectively improving the deficiency, improving the talent training environment, reasonably integrating all kinds of resources, strengthening the connection with the industry, and cultivating high-quality applied talents suitable for the needs of economy and society.

The majors of economics and management in applied universities belong to the social science with strong application. Their talent training orientation must put the practical needs of enterprise personnel in an important position, and pay attention to the cultivation of practical and applied skills. The traditional practice teaching of economics and management majors generally only involves simple enterprise business process and knowledge, so graduates often lack deep practical experience. However, due to the particularity and complexity of enterprise business, it is often impossible to meet the application training goal of economics and management majors by relying solely on the simulation method of school laboratory. This leads to a huge gap between the demand of enterprises and the supply of the personnel of universities. It is imperative to strengthen the training of operational skills and practice level, promote the supply-side reform of talent training models, and construct a suitable and suitable mechanism of in-depth cooperation between universities and enterprises.

B. *The Connotation of Deep School-Enterprise Cooperation of Economics and Management Majors*

The deep school-enterprise cooperation mechanism of economics and management majors in applied universities takes the characteristics of talent training as the starting point, takes the market and social demand as the guide, and aims at cultivating the comprehensive professional ability and improving the competitiveness of employment of college students. Through the construction of an all-round integration platform of industry and education, the mechanism promotes the government, enterprises, universities, students and other stakeholders to win. This mechanism is not a one-way order mode of talent transmission, but a practical form of school-enterprise cooperation guided by solving certain kinds of problems in enterprises. This practical form of school-enterprise cooperation systematically integrates the dominant environment and resources owned by enterprises and

universities. They make comprehensive use of classroom teaching, practice training, enterprise trial, multidisciplinary rotation and other ways to train applied economics and management talents who meet the unique needs of employers.

III. DRIVING FACTORS OF DEEP SCHOOL-ENTERPRISE COOPERATION OF ECONOMICS AND MANAGEMENT MAJORS

The establishment of deep cooperation mechanism between universities and enterprises in applied universities has two driving factors, both internal and external.

A. *Internal Driving Factors of Deep School-Enterprise Cooperation*

The internal driving factors are the driving forces of the direct participants in the cooperation between universities and enterprises, including enterprise profit, enterprise seeking talent, university development, student development and so on. The inherent motivation of universities to seek cooperation with enterprises lies in the commitment of both sides to maintaining their position and advantages in this field for a long time. Specifically, universities hope to make better use of their resources to serve the society and train more outstanding applied talents for the whole society. Enterprises hope to continuously enhance the competitiveness of products and services, expand the scale of production and market share. The cooperation of schools and enterprises has become an important means of improving the competitiveness of universities and enterprises, and has promoted the cooperation and win-win of both sides.

Enterprises can break through their own technological difficulties and seek technological breakthroughs with the help of scientific research resources, talent reserves and other advantages from universities. Enterprises can use school-enterprise cooperation to strengthen the accumulation of human and technology talents, improve the management level of the enterprise, save the personnel cost and realize the maximization of the industrial interest, thus comprehensively improving the competitiveness and reducing the innovation risk. By working with enterprises, universities can improve the shortage of funds for running schools. Through the way of school-enterprise cooperation, universities can strengthen the cultivation of trainee practice environment, promote skill training, test the quality of talent training, improve the employment competitiveness of students, and enhance the social service function. With the help of the deep cooperation between enterprises and schools, students can strive for more practical exercise opportunities, expand the way of employment, and strengthen the initiative of career choice.

B. *External Driving Factors of Deep School-Enterprise Cooperation*

In addition to universities and enterprises, the external driving factors are the forces from the external environment to promote the cooperation between schools and enterprises, including market demand, policy guidance and science and technology promotion.

In the aspect of market demand, in order to achieve the goal of its own development and to continuously improve the profit target, it is necessary to strengthen the technological innovation and increase the competitive advantages of the products so as to satisfy the changing demand of the consumers. Against the background of increasing globalization, the category of market resource allocation has gradually changed from a single country to a global optimal allocation. In the same industry field, the continuous upgrading of the degree of competition increases the operating pressure of enterprises, and urges enterprises to seek to cooperate with universities and other external organizations in order to break through the market problems. When an innovation can not only effectively improve profits but also greatly improve the competitiveness of enterprises, but enterprises can not complete this important innovation task independently, then the deep cooperation between schools and enterprises will have a greater attraction to enterprises.

In the aspect of policy guidance, the government will guide the cooperation between universities and enterprises. The government will introduce policies to encourage universities and enterprises to strengthen cooperation in talent, resources, innovation and so on, and improve the conversion rate of cooperation results. The government has continuously issued various plans to promote cooperation between universities and enterprises, and formulated laws and regulations on the protection and transfer of various intellectual property rights. This can provide various policy support and fund support to school-enterprise cooperation, and straighten out the relationship between universities and enterprises.

In the aspect of science and technology promotion, contemporary science and technology is developing in the direction of many fields and interdisciplinary. The development and application of new technology is beyond the self-ability of a class of subjects, such as enterprises or universities. The connection between enterprises and universities can provide new opportunities for effectively meeting the challenges of scientific and technological innovation.

IV. CONSTRUCTION OF THE MODELS OF DEEP SCHOOL-ENTERPRISE COOPERATION IN ECONOMICS AND MANAGEMENT MAJORS

The mechanism of deep school-enterprise cooperation is the basis and guarantee for the goal of coordinated education between universities and enterprises. This study analyzes the cooperation models of school-enterprise of economics and management majors from the aspects of building the cooperation platform of integration of industry and education, developing the practical teaching curriculum system, promoting the construction of double-qualified teachers, constructing the coordination mechanism of stakeholders and perfecting the mechanism of cooperation guarantee. On this basis, this study constructs the deep school-enterprise cooperation mechanism of economics and management majors.

A. *Building the Cooperation Platform of Integration of Industry and Education*

The integration of industry and education refers to the convergence of enterprises and universities into a collaborative development community for their own development needs. Therefore, the integration of industry and education is a two-way power, two-way integration process. The platform of industry-education integration can effectively expand the cooperation channels between enterprises and universities, and provide a new coordination organization and management carrier for school-enterprise cooperation. This is very conducive to promoting the breadth and depth of cooperation between universities and enterprises.

In the construction of the platform of the integration of industry and education, the government should not only play the role of guider, but also play the role of coordinator. For school-enterprise cooperation, the government should establish a clear management and coordination organization. This organization establishes a perfect service process to organize the relevant school-enterprise cooperation work within the platform. They promote the formation of interest linkage mechanisms among various partners and promote resource-sharing cooperation to win more. This is also the key to the success of deep cooperation between universities and enterprises.

The school-enterprise cooperation platform of the integration of industry and education needs to rely on the benefit mechanism of mutual benefit and win-win, establish stable cooperative institutions, and build an entity-based industry and education base. First, the mutually beneficial interest mechanism needs to be established to promote win-win among multiple stakeholders. The common value foundation and benefit demand of both sides of school-enterprise cooperation can be explored from the potential influence of cooperation. The interests of all parties should be taken as the starting point to create a mutually beneficial and win-win chain of interests between universities and enterprises. Second, the institutions of school-enterprise cooperation need to be improved. The establishment of school-enterprise cooperation docking organization is conducive to the definition of cooperation principles and tasks, and the determination of partners and specific projects. At the same time, the cooperation agencies are also responsible for coordinating all kinds of cooperation activities, doing a good job in the training and scheduling of personnel, and promoting the standard and orderly operation of cooperation between schools and enterprises. Third, industry and education bases within universities need to be built. School-enterprise cooperation can not only encourage university personnel to enter enterprises, but also encourage enterprise personnel to enter the universities. On the one hand, industry and education bases within universities can facilitate university researchers to carry out applied research and improve their own scientific research and social service ability. On the other hand, industry and education bases within universities can provide the majority of university students with high-quality real-time teaching environment,

and improve their practical business ability in an all-round way.

B. Perfecting the Practical Teaching Curriculum System of Economics and Management Majors

In the construction of cooperative curriculum, economics and management majors of applied universities should be based on the social needs and the individual demands of college students. Combined with the characteristics of economic management majors, a school-enterprise cooperative should be constructed curriculum model to meet the needs of professional, pluralistic and personality development.

In order to improve the efficiency of resource use and avoid repeated construction, the practical teaching curriculum system of economics and management majors should grasp some construction principles. First of all, curriculum construction should be combined with the upgrading of practical skills of teachers. Secondly, the course of comprehensive practice in the course of management and management majors should be used as the key of construction. According to the business characteristics of the school-enterprise cooperation, unique practical course content could be designed. In practical projects, universities can integrate the application of knowledge, the cultivation of skills and the improvement of professional quality. In the end, the practical curriculum system of economic management majors can be diversified. In the construction of practical course system, enterprise visit, field investigation, internal simulation, post practice, enterprise coach and other forms are all suitable.

Against the background of the integration of school and enterprise resources, economics and management majors can carry out practical teaching with the help of specific mode of combining school simulation training with enterprise field practice. Four areas of work could be done better. First, the systematization of practical teaching content needs to be strengthened. Combining the common points of ability requirements of economics and management majors, Universities change uniform practice into comprehensive practice and put the improvement of students' professional quality in a key position. Second, the level of practical teaching informatization needs to be improved. Under the background of the rapid development of modern information technology, universities introduce modern information technology into the practical teaching of economics and management majors to strengthen students' participation, interaction and feedback. Third, the application effect of practical teaching curriculum needs to be highlighted. It is a good choice to introduce design groups of practical courses for economics and management majors. Such groups can help bring in experienced teachers and business practitioners to develop training themes and implementation programmes. Fourth, the construction of practical teaching process simulation needs to be promoted. In order to improve the effect of simulation training, universities rely on their own industrial and educational bases to build a number of highly comprehensive and experienced simulation internship projects with high student participation.

C. Promoting the Construction of Double Qualified Teachers of Economics and Management Majors

The environment conducive to the development of double qualified teachers needs to be built. Universities and enterprises should combine the strategic goal of school-enterprise cooperation, through the analysis of software and hardware conditions and teacher ability, to formulate the training and planning of double-qualified teachers. In order to help the training of double qualified teachers as the starting point, universities improve the training and management system of double-qualified teachers, and encourage more and more teachers to transform in this direction.

Universities strengthen the guidance and construct the perfect evaluation standard of double qualified teachers. The cooperation between universities and enterprises has its own unique law, and its realization mode and training goal are very different from the traditional mode of ordinary classroom education. This requires the establishment of targeted evaluation criteria for double qualified teachers who can be competent for school-enterprise cooperation. First, in the evaluation program of the double qualified teachers, universities could pay more attention to the role of the skill qualification certificate and put it in a position equal to the academic certificate. Second, the selection of professional titles of double qualified teachers should have supporting documents, and the judges should also appoint experts with rich experience in school-enterprise cooperation. Third, double qualified teachers should have autonomy in selecting professional title sequences, and select the corresponding sequences according to their own strengths and interests.

Double qualified teachers are very important for the long-term development of universities. It is necessary to arouse their enthusiasm to participate in school-enterprise cooperation. The cultivation of double qualified teachers needs not only a good external environment, but also its own subjective initiative. First of all, industry expert guidance, teacher mutual evaluation, business competition and other ways can improve the ability of double-qualified teachers. This helps them to recognize their strengths and weaknesses. Second, under the background of abundant resources in cooperative enterprises, double qualified teachers can carry out field exercises in enterprises and keep learning and growing in practice. Third, the incentive mechanism of double qualified teachers should be perfected, so that the talents who are willing to become double-qualified teachers can be encouraged from spirit to material. Universities can reward teachers who are willing to invest, have good skills and love innovation, to accelerate the growth of double qualified teachers.

D. Constructing the Stakeholder Coordination Mechanism of Deep School-Enterprise Cooperation

Students, universities and enterprises are the direct stakeholders of school-enterprise cooperation, while government, trade associations and parents are the indirect stakeholders of the school-enterprise cooperation. The school-enterprise cooperation should consider the interests of

various stakeholders, complementary capabilities, resource advantages, as well as the degree, speed and participation of the interest satisfy of all stakeholders. The coordination shall be carried out in a timely and effective manner in the event of a conflict among stakeholders.

The establishment of stakeholder coordination mechanism needs to focus on four aspects of work. Firstly, the principles of "advantage support, risk sharing, mutually benefit, and common growth" are conducive to the balance of interests of stakeholders. The participation of schools, industries, enterprises, universities and students can help build a long-term win-win driving system of school-enterprise cooperative construction. Secondly, the school-running system of applied university needs to be innovated. It is necessary to establish school-enterprise cooperation academies and school-enterprise cooperation councils, and other new institutions to facilitate the participation of stakeholders. In this way, the relationship between responsibility and rights of various stakeholders can be straightened out, and the organizational guarantee for the deep cooperation between universities and enterprises can be provided. Thirdly, a complete resource sharing system needs to be built. Enterprises have technical, capital and market advantages, while universities have talent, venue and project advantages. In school-enterprise cooperation, optimization and promotion, open sharing, collaborative utilization and other means can help the integration of superior resources of various disciplines. Fourthly, good communication coordination mechanism needs to be formed. Cooperation committees, information systems, liaisons and other platforms and personnel are important organizational resources. Various forms of negotiation, meeting, discussion and visit can realize all-dimensional and multi-frequency communication among stakeholders.

E. Improving the Guarantee Mechanism of Deep School-Enterprise Cooperation

The effective and stable operation of school-enterprise cooperation needs to be realized under a series of safeguard measures in accordance with the rules of market economy. These safeguard measures include perfecting management methods of cooperation, establishing the information management system, perfecting the fund guarantee mechanism and so on.

First of all, school-enterprise cooperation management methods need to be improved. School-enterprise cooperation management methods should cover the aspects of strategic planning, management principles, management institutions, cooperation content and so on. The management methods should also provide detailed rules for the qualification of the subject, the threshold of the project and the business process. At the same time, the methods should stipulate clearly the supervision responsibility, the examination and incentive of the cooperation effect, etc., in order to ensure school-enterprise cooperation activities have rules to follow and the risks can be controlled.

Secondly, the information management system needs to be established. The establishment of the information

management system provides a good communication foundation for each cooperation subject, which is convenient for the effective transmission of information such as talent, site, curriculum, technology, project and so on. The establishment of information management system can effectively break through communication barriers, reduce information asymmetry, reduce communication costs, strengthen information sharing and archiving, and so on. With the complete information communication network between universities and enterprises, the mutual trust between the two has been increased, and the cooperation between the two has entered a virtuous circle.

Thirdly, the funding guarantee mechanism of deep school-enterprise cooperation needs to be improved. On the one hand, it is necessary to expand the source of funding for school-enterprise cooperation. Under the premise of continuously increasing the investment of government public finance, the school-enterprise cooperation fund can be set up. The establishment of the fund can attract institutions interested in school-enterprise cooperation to participate in investment. Enterprises can increase investment through the contribution of free experimental places and enhancing the form of scientific research funding. On the other hand, the management of special funds needs to be well done. The school-enterprise cooperation fund should be operated as a special fund to ensure the special use. The school-enterprise cooperation fund management method needs to be formulated. In this way, all-round and full-process supervision on the application, approval and use process of the special fund can be improved.

V. CONCLUSION

School-enterprise cooperation is not only a guiding ideology, but also an operation mode. In a broad sense, school-enterprise cooperation refers to the cooperation between schools and related enterprises, institutions and other work departments in society. They form a cooperative relationship in professional construction, curriculum development, talent training, scientific and technological research and development, social services and so on. On the basis of fully considering the needs of enterprises, according to different disciplines and specialties, universities carry out different degrees and ways of school-enterprise cooperation according to their own actual resource conditions. The goal of school-enterprise cooperation is to realize the deep cooperation between universities and enterprises in curriculum, teaching management, student evaluation, technological innovation and so on.

The deep cooperation mechanism of economics and management majors between universities and enterprises is the basis and guarantee of the goal of coordinated education of school-enterprise cooperation. The establishment of the cooperation mechanism has two driving factors, both external and internal. This study discusses the school-enterprise cooperation models of economics and management majors, mainly from the aspects of building the cooperation platform of integration of industry and education, perfecting the practical teaching curriculum system, promoting the construction of double-qualified teachers,

constructing stakeholder coordination mechanism, improving the guarantee mechanism and so on. On this basis, this study puts forward some countermeasures for the construction of the deep cooperation mechanism between universities and enterprises majoring in economics and management.

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