



## A study on the Management Mode of Modern Vocational Education in China

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### ABSTRACT

Since the reform and opening up, the management model of China's vocational education has exposed many problems and deficiencies in the process of continuous improvement. The purpose of this paper is to study the management mode of modern vocational education in China, including: 1) research on the development of modern vocational education in China after reform and opening up; 2) study the current status and management mode of vocational education management in China; 3) summarize the main aspects of modern vocational education management theory and model to optimize the management model suitable for the development of modern vocational education in China.

This paper selects the methods of qualitative research, selects the relevant responsible persons of vocational colleges, government and enterprise departments, conducts in-depth interviews on the relevant issues of China's modern vocational education management model, and combines relevant books, reports and materials to propose an optimized management mode of modern Chinese vocational education. Through qualitative analysis, we find that 1) Since the reform and opening up, the development of China's vocational education has mainly experienced the "exploration and practice stage", "the stage of vigorous growth" and "the stage of quality improvement", which has shifted from the cultivation of professional talents to the quality training; 2) The current Chinese vocational education management model mainly follows the modern apprenticeship management mode, and gradually

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explores the formation of vocational education group and corporate management mode. In the quality training of vocational students, it pays attention to the implementation of talent integration projects and strengthens the combination of engineering and learning. School-enterprise cooperation to enhance the practical ability of students in vocational colleges; 3) However, there are still many problems in the management of modern vocational education in China, such as the closure of vocational education teaching mode and the simplification of management mode. In order to meet the employment needs of the new era industrial transformation and upgrading, combined with the current status of modern Chinese vocational education management, this paper proposes an innovative model to optimize China's modern education management, specifically based on the "three spirals" management theory, to strengthen vocational colleges, governments. The close cooperation of the three parties of the enterprise will give full play to their respective advantages. Including vocational colleges should pay attention to the training of dual-teachers, government departments to strengthen policy guidance, and enterprise production to play a guiding role. Promote the diversified management of vocational education, and actively attract enterprises to participate in the management of modern apprenticeships, fixed-term internships and vocational education groups in vocational colleges. Optimize the management mode of modern vocational education in China by deepening the cooperation between schools and enterprises, the combination of work and study, and the combination of production, study and research.

**Keywords:** China; modern; vocational education; model

## 1. Introduction

Since the reform and opening up, the development of China's vocational education has experienced the exploration and establishment of vocational colleges in 1991-1998; the number of vocational education institutions grows in 1999-2005; the stage of quality improvement in China's vocational education in 2006-2009; the continuous improvement of the management model of vocational education in 2009-2018. China enters a new era of characteristic socialism. In the field of vocational education, the growing needs of the people and the development of vocational education are unbalanced, inadequate, weak, and unsatisfactory in the supply-side structure become socialist

contradictions(Guo Tianping, 2018). To solve the contradictions in the field of vocational education, it is necessary to upgrade the vocational education management model as a breakthrough and improve the vocational education and training system. At each stage, the focus of vocational education development is different, but the overall direction of development is to cultivate high-quality, high-quality professional talents, and better serve the development strategy of economic transformation and industrial upgrading. Relative to developed countries, the development of modern vocational education in China is relatively slow, the management mode of vocational education is simplistic, and there is a lack of deep cooperation with enterprises,

including cooperation in production and education, integration of production, study and research (Jiang Yuguo, 2015). In addition, government finance is the main source of funding for the development of vocational colleges. In the process of development, it lacks the participation of social forces. Moreover, the development of vocational colleges is mainly in accordance with the guidance of government policies, and it lacks the necessary subjective initiative. In terms of teaching and administrative management, the relative separation and lack of cooperation have resulted in a lack of a unified supervision and evaluation system for the quality of teaching and management in vocational colleges. There are still many problems in the current Chinese vocational education management model. How to innovate China's modern vocational education management mode is the focus of this paper.

Due to the continuous adjustment of China's social structure, the traditional focus on the number of professional students and neglect the quality of training, as well as the emphasis on traditional manufacturing talent training, while ignoring the training of new technology requirements, and the relatively closed teaching management of vocational colleges, while neglecting the enterprise characteristics of cooperative teaching, traditional vocational education development model does not meet the needs of China's economic and social development and industrial upgrading (Cai Zhongxing et al., 2018). Therefore, the development of vocational education is necessary to adjust the old development model, reorganize and construct a new education management model, in order to provide more and more urgently needed professional and technical personnel for economic and social development (Jiang Lili et al., 2015). In recent years, the government has liberalized many preferential policies for vocational education colleges, which has led to a rapid increase in the number of students enrolled in vocational

education institutions. China's policies have promoted the development of higher education. This shows that there are serious challenges for the development of higher education in China. The pressure on the management model is also rising. Regardless of the goal of talent training or the purpose of running a school, vocational education colleges are different from ordinary colleges and universities. There are significant differences between them. For vocational education colleges, it is mainly aimed at cultivating applied talents. To train technical talents with certain professional skills for the society, it is also decided that vocational education colleges must adjust the education management mode and talent cultivation in a timely manner according to actual needs.

Although the development time of China's vocational education is not too long, it has already revealed many shortcomings. Therefore, vocational education institutions should start from the actual needs of society, deeply study the defects in the education management model, and propose effective solutions. In short, study the practical significance of the modern vocational education model.

## **2. Purpose of Study**

The purpose of this paper mainly covers three aspects: (1) understanding the development process and status of China's vocational education after reform and opening up; (2) studying the current status and mode of modern vocational education management in China; (3) targeting economic development and industrial structure needs for upgrading, optimizes the management model suitable for the development of modern vocational education in China.

## **3. Analysis of the Management Mode of Vocational Education**

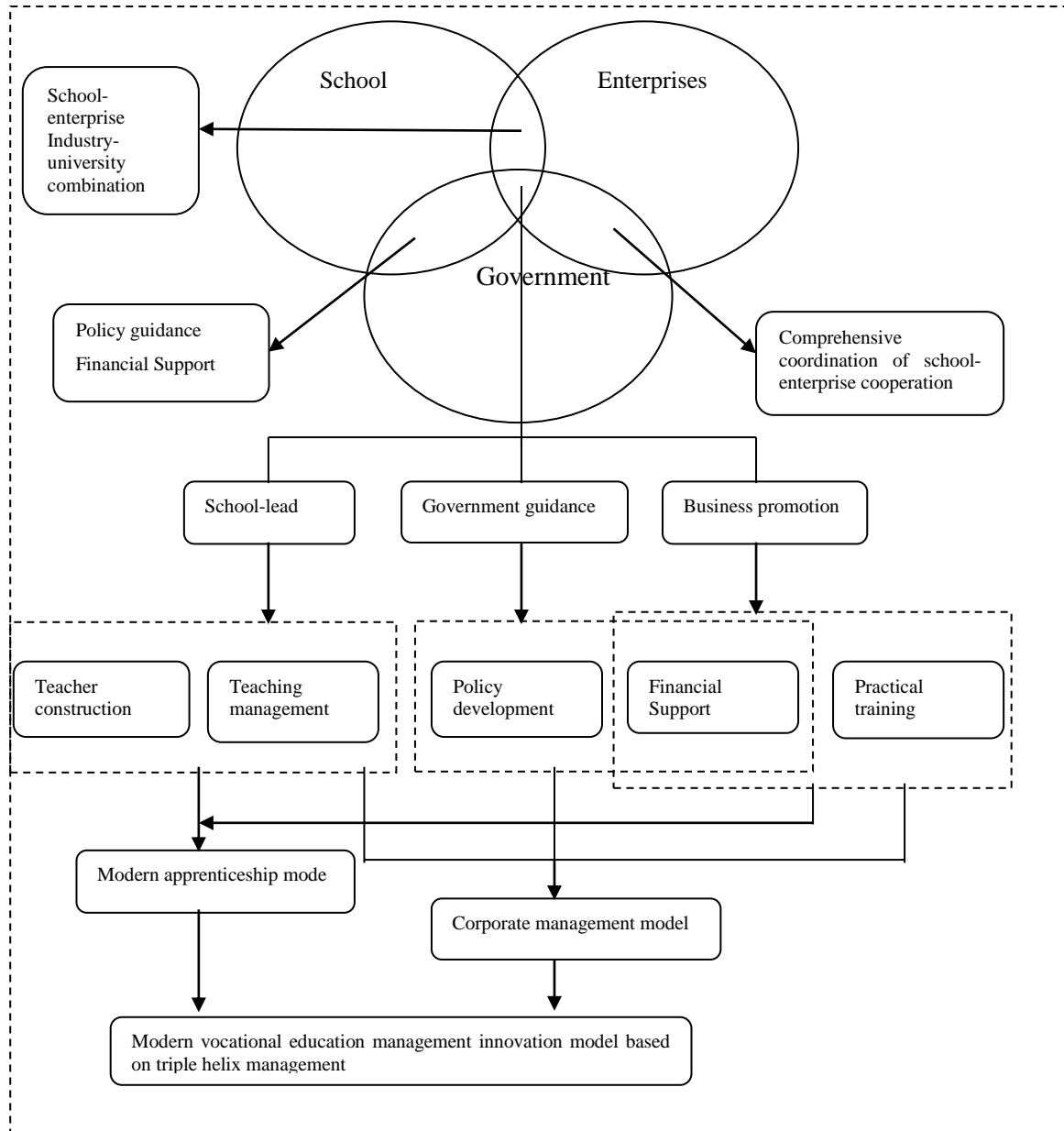
This paper studies the management mode of modern vocational education in China. According to the main theories, including the theory of triple helix model, the theory of

cooperative education of vocational education, the theory of cooperative education and the theory of social inclusion and synergy, the main models cover the model of Deming cycle management (PDCA cycle), modern apprenticeship teaching mode and corporate management mode.

**4. Research Methods**

(1) Research framework

Based on the above analysis of the theory and model of vocational education management, the framework of the research in this paper is proposed. See Figure 1 for details.



**Figure 1 Modern vocational education management model based on triple helix theory**

Source: Authors draw the proceeds.

(2) Qualitative research methods

1. Research object

Responsible persons related to 4 vocational colleges in Beijing, Beijing Electronic Technology Vocational College, Beijing Finance

and Trade Vocational College, Beijing Industrial Vocational Technical College, Beijing Agricultural Vocational College, government departments such as the Education Department and Beijing Municipal Committee, and the

person in charge of the company who close cooperation with vocational colleges carried out investigation and interview records, interviewed them about the management mode of modern vocational education in China, including the development history, development status and problems of Chinese vocational education, and also included the development of relevant modern vocational education management mode.

## 2. Interviewee

Relevant leaders of Beijing Electronic Technology Vocational College, Beijing Finance and Trade Vocational College, Beijing Industrial Vocational Technical College, and Beijing Agricultural Vocational College, understand the development history, current situation, and vocational education management mode and problems faced by the four vocational colleges and challenges; government officials in the education sector, understand the government's policy guidance and financial support for vocational education development; relevant business leaders who are closely connected with vocational colleges, in school-enterprise cooperation, industry-teaching integration, and industry-university-research process, the role of enterprises character.

## 3. In-depth interview

A total of 24 people, in charge of vocational colleges (12 persons), government officials of the Ministry of Education (4 persons) and business leaders (8 persons) conducted interviews on the relevant content of China's modern vocational education management model, in order to obtain the insights, thoughts and suggestions of management model of vocational education in China. The development of vocational education in China, the management model of vocational education, and the functions of government and enterprises in the management of vocational education. In addition, it is necessary to understand the problems and challenges of the current modern vocational education

management model in China, as well as the development opportunities.

## 4. Collecting data

Use the in-depth interview method to collect factual materials by conducting a purposeful verbal conversation with the interviewee. Mainly adopt direct access and individual access methods, that is, directly to vocational colleges, government agencies or enterprises to conduct contact, and then focus on individual visits to the actual operators of individual departments, mainly adopting structural interviews, according to fixed issues, different visitors asked questions and answered questions, but the way they asked and the way they answered were not uniform.

## 5. Analysis data

Read through all the interview records on the modern vocational education management model, without prior judgment, to maintain fairness, and then use some key points and data sections to use concise words or phrases to determine their categories, read through the materials and think about yourself. The coding process of data and materials related to the management mode of modern vocational and vocational education, considering whether their thinking mode is too linear, and then draw the relevant qualitative model with reference to the actual situation of the theory and vocational colleges.

## 5. Research conclusions

### 1) Research conclusions

Since the implementation of reform and opening up in 1978, vocational education has begun to adapt to the needs of skilled workers in economic development. First, local vocational colleges were established in economically developed areas such as Nanjing. The establishment of vocational colleges has resulted in the reform of higher education in China for a far-reaching impact. From 1991 to 1998, the state formulated relevant policies to explore vocational education management

models that are adapted to the characteristics of China's economic development. Through the development policy of "three reforms and one supplement" and "three more reforms", the development of vocational colleges with multi-channel, high-specification and multi-models focuses on teaching reform and exploring the construction of vocational education with Chinese characteristics. From 1999 to 2005, China's modern vocational education entered a period of vigorous development. The Ministry of Education guided vocational colleges to implement hierarchical management, local-based, government-coordinated and social participation management modes, encourage and support social forces to participate in teaching management, strengthen the industry, cooperation of enterprises, scientific research and technical units. From 2006 to 2009, vocational education entered a new stage of development. Vocational education paid more and more attention to the quality of personnel training, promoted the regulations on school-enterprise cooperation methods, and promoted the institutionalization of school-enterprise cooperation. From 2010 to 2018, the government issued relevant policies to guide the "school-enterprise cooperation", "integration of production and education" and "work-study combination" and other modes, and constantly promote the quality of vocational education, deepen the policy of integration of production and education, school-enterprise cooperation "combination fist".

Compared with developed countries, the development of China's vocational education management model has lagged behind. In the era of reform and opening up, in order to adapt to the economic development needs of coastal open areas, especially China's low labor costs, it has attracted foreign advanced manufacturing to invest in China, mainly to complete the processing, assembly and assembly stages of products. This requires a large number of labor-oriented workers with certain skills. In this context, vocational colleges have begun to be

established. In the beginning, vocational colleges mainly trained laborers with primary skills. With the development of China's economy, in order to enhance the competitiveness of domestic enterprises in the international market, it is necessary to carry out research and development innovations in technology and technology. This requires more skilled talents to participate in enterprise production. The government has begun to strongly support the vocational colleges. The development of the school, vocational education entered the fast lane. After entering the 21st century, as the Chinese economy enters a rapid development track, the economic structure continues to escalate, placing higher demands on workers' skills. In order to adapt to economic development and transformation and upgrading, under the guidance of government policies, vocational colleges and enterprises carry out the integration of industry and education and the combination of engineering and learning, and continuously deepen the cooperation between schools and enterprises. Improve the modern apprenticeship system to train students, implement the talent integration project, and improve the overall quality of vocational college graduates.

After the reform and opening up, the development of vocational education in China has gradually shifted from the number of vocational colleges and the scale of enrollment to the emphasis on teaching quality and the adaptation requirements of enterprises. In the aspect of teaching management, we attach importance to the construction of teachers and improve the proportion of teachers' dual-skills, so that vocational college teachers have rich professional knowledge and can gain rich teaching practice experience by participating in the front line of enterprises. In addition, we attach importance to the evaluation of the teaching quality of vocational colleges to ensure that graduates are trained and qualified in the school to meet the requirements of the company. In terms of student development,

vocational colleges and secondary vocational schools carry out “3+2” convergence teaching. In addition, vocational colleges and undergraduate colleges cooperate in running schools, especially talents-through projects. After graduation from vocational colleges, they enter the undergraduate college. The school continues to further study and guarantees the quality of vocational college graduates. In order to meet the needs of enterprises, vocational colleges strengthen cooperation with enterprises, set up vocational education groups, and provide a platform for industry-university integration, engineering-integration and industry-university-research activities. Improve the modern apprenticeship system, hire enterprise masters to participate in the daily teaching of vocational colleges, teach students work skills, establish training bases and participate in enterprise order production, so that vocational college students are more suitable for the production needs of enterprises. At present, the mode of management mode of modern vocational education in China is mainly that under the guidance of government policies, vocational colleges run education, and the government’s fiscal expenditure is the main source of funding for vocational colleges. Under the guidance of the government, vocational colleges strengthen cooperation with enterprises, promote the combination of production and education, and develop modern apprenticeships and sign production orders. In the current management mode of modern vocational education in China, the following problems still exist: the simplification of vocational education and management mode, the lack of in-depth work-study combination of school-enterprise cooperation, the mechanism of combining education, production and research has not really formed, and no order-based training has been formed. Supply and demand mechanism. In addition, in the process of vocational education, there is a lack of necessary teaching quality and quality training and evaluation system for personnel training,

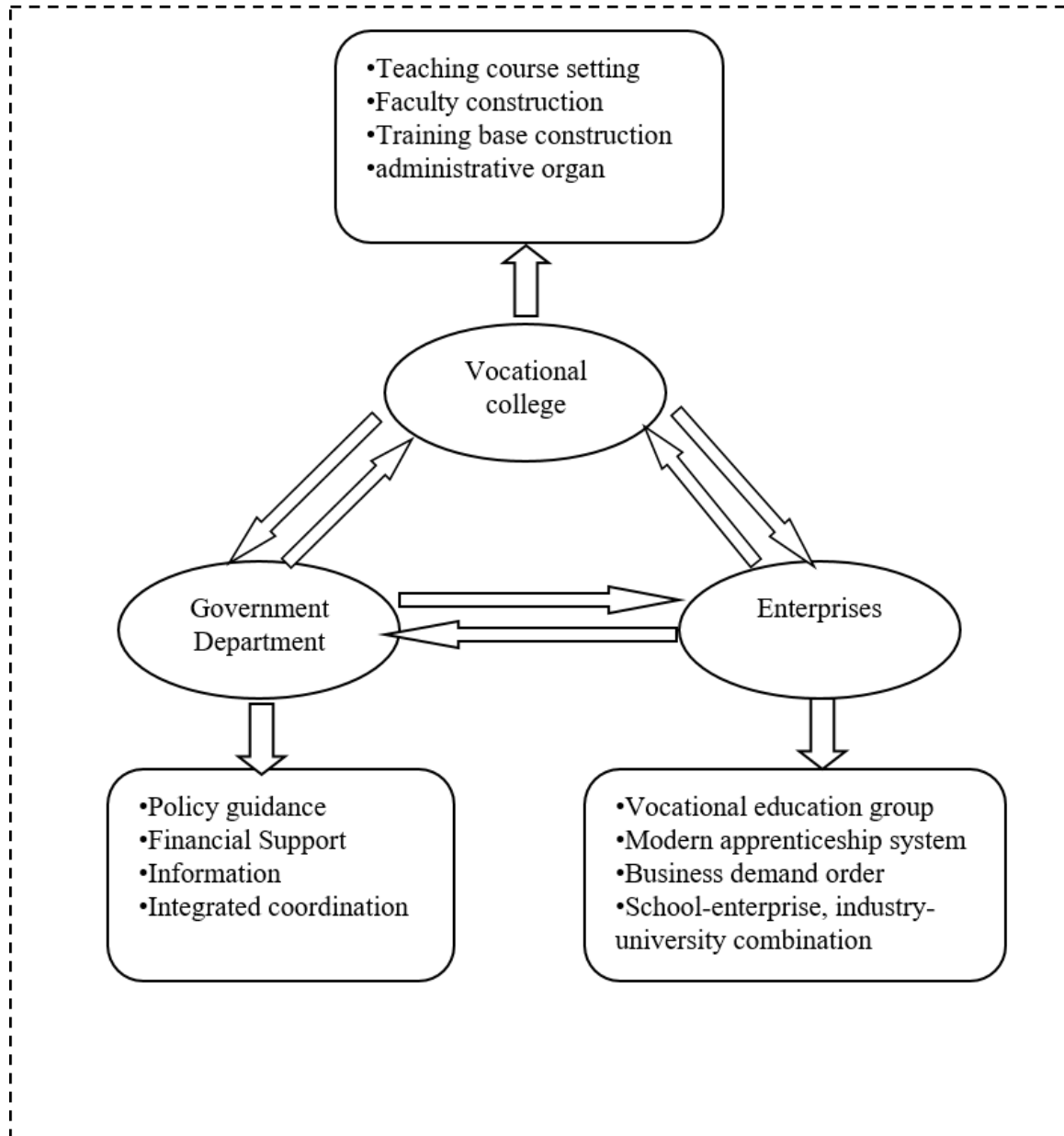
and the vocational education teaching management model is relatively closed. The school-running and research-based school-running mechanism has not really formed. The school-running model of higher vocational education institutions has not formed a long-term, stable and close combination of production, study and research. The school-enterprise cooperation stays in the internship and the appearance of part-time teachers. The cultivation of supply and demand mechanisms. Some colleges have short running time, lack of experience, and no guarantee of reciprocal conditions for cooperation with enterprises. It is very difficult for schools to seek internship training bases, and cooperation with enterprises is relatively poor. While guiding the establishment of modern systems, the government did not formulate specific legal guarantees for the operation of enterprises, lacked guidance for enterprises to participate in the reform of higher vocational education, and failed to effectively encourage enterprises and schools to participate in vocational education.

## 2) Innovative management mode of modern vocational education in China

Aiming at the economic development and industrial structure demand, this paper proposes to optimize the management mode of China’s modern vocational education. Specifically, based on the classic three-helix management theory, the innovative vocational college-government-enterprise triple spiral model is innovated. According to the size of the role of schools, governments and enterprises, there are three modes of management innovation: the school-led modern vocational education management model, the government-led vocational education management model, and the enterprise-driven vocational education management model. The vocational education management mode led by vocational colleges emphasizes the construction of dual-skilled teams, the implementation of talent-based project construction, and the PDCA cycle management

model to continuously improve the quality of teaching and personnel training in schools. The government-led vocational education management model covers policy guidance, financial support and information consultation, and comprehensively coordinates the development model of school-enterprise cooperation, production and education

integration, and production, education and research. The business-driven vocational education management model includes providing order-based training, perfecting modern apprenticeship training, and forming a corporate management group. The specific mode is shown in Figure 2.



**Figure 2 Education Management Innovation Model**

Source: Authors draw the proceeds.

**6. Discussion**

(1) The modern vocational education management innovation model under the leadership of the school

Vocational colleges are the main body of the three-helix management model under the interaction of schools, governments and enterprises. Vocational colleges are the first



person in charge of professional talent training, including the teaching and training of vocational students, curriculum, administration, and teachers equipped. Under the guidance of government policies, we will face the market and cultivate professional talents according to the needs of employment. Vocational colleges should give full play to the advantages of technology and talents, and provide high-quality, high-skilled labor-oriented talents at all levels for enterprise development. First of all, in terms of curriculum, in addition to the necessary professional knowledge courses, we must also pay attention to the training of technical ability, increase the training courses, improve the students' practical ability, and pay attention to the cultivation of students' practical ability. It is necessary to pay attention to the application of theoretical knowledge in practical teaching, and to guide the study of theoretical knowledge through practice. In the structure of the teaching curriculum, we must pay attention to the implementation of the quality education curriculum, and promote the development of teaching reform. Secondly, in the allocation of teachers, we must pay attention to the qualifications of vocational teachers and recruit teachers with high-level qualifications. In addition, in addition to requiring teachers to have professional knowledge, it is necessary for teachers to strengthen their technical capabilities and build a double-skilled faculty.

The management model of modern vocational education led by vocational colleges should strengthen the relationship with the government and enterprises. Pay close attention to the relevant policies formulated by the government departments on the development of vocational education, make full use of the government's policy guidance and financial support, and build vocational colleges with their own characteristics. It is necessary to strengthen the ties with enterprises, lead the docking with related enterprises, carry out industry-university cooperation and school-enterprise cooperation, give play to the advantages of vocational

colleges in terms of personnel training, and directionally cultivate corresponding professional talents according to the job requirements of enterprises. Exploring the vocational school training mode of "school in the factory", "school in the factory" generally refers to the cooperation provided by the vocational colleges, and the cooperation with the colleges with high professional relevance, and some resources of the production equipment, technicians and other resources of the enterprise. Introduce schools to build a training base to carry out product development, production and research while conducting on-campus teaching and training.

(2)The management innovation model of modern vocational education under the guidance of the government

The modern vocational education management innovation model under the guidance of the government refers to the government agencies to formulate policies on modern vocational education, guide vocational colleges to carry out vocational education management, and support the updating of teaching equipment in vocational colleges through capital investment, and support vocational colleges innovative teaching. Through policy guidance, the objectives, implementation steps and measures of education management in vocational colleges are clarified. The government's main role in the education management of vocational colleges is reflected in the following aspects: First, the government departments are the main providers of relevant resources of vocational colleges, and at the same time provide a good policy environment for the development of vocational colleges, and support vocational education through policies development, "Decision of the State Council on Vigorously Developing Vocational Education" states: "The people's governments at all levels should strengthen the overall planning of vocational education development planning, resource allocation, conditional guarantees, and policy

measures to provide strong public services and good education for vocational education development environment.” Second, the government has an innovative platform. According to the needs of production development, vocational colleges aim to cultivate high-skilled talents and open relevant courses and majors according to market demand. Therefore, vocational colleges must master a large number of market demand information in order to realize the innovation of modern professional management mode. In terms of information acquisition and processing analysis, vocational colleges have irreplaceable authority and all-star. Therefore, the government departments should comprehensively analyze the information of enterprises, society on high-tech talents, industry-university integration projects, industry-university-research cooperation, and development of enterprises and industries, and timely feedback the information obtained to the vocational departments. The reform and innovation of vocational colleges in teaching mode. Relevant governments should guide the establishment of scientific and technological research and development centers jointly established by schools, enterprises, and governments in accordance with the actual needs of local economic development, and strive to achieve the transformation of scientific research results and promote the upgrading and adjustment of local industries.

(3)The innovation mode of modern vocational education management promoted by enterprises

Enterprises are an important part of the three-helix modern vocational education management innovation model of schools, governments and enterprises. The current school-enterprise cooperation, industry-university integration, and work-study combination are important components of the modern vocational education management model. They are the basic school management

model for vocational education and the inherent requirement for cultivating high-quality workers and technical skills. The role of enterprises in promoting the innovation of modern vocational education management mode includes, firstly, promoting the school-enterprise cooperation management mode through vocational education group-based education. In the early 1990s, with the rapid development of vocational education, the relevant vocational colleges and cooperative enterprises as the main body, the administrative region or industry sector as the form, and the mutual promotion and benefit-win as the basic co-construction principle Education groups have also begun to emerge in China. As a form of educational organization, the Vocational Education Group participates in the participation of vocational colleges and cooperative enterprises, as well as multi-agents related to vocational education such as government agencies, scientific research institutions, and social organizations. Relying on the vocational education group to jointly run schools is a major measure to promote the reform and development of vocational education in China. It is because relying on vocational education groups to jointly run schools is conducive to the integration of multiple forces; relying on vocational education groups to jointly run schools is conducive to the establishment of a government-led, industry-led, enterprise-participating vocational education mechanism; relying on vocational education groups to jointly run schools is conducive to deepening Vocational education school-enterprise cooperation. Second, promote school-enterprise cooperation based on modern apprenticeship. The modern apprenticeship system is based on the traditional apprenticeship system. It is a modern talent training mode based on the deep cooperation between the school and the enterprise, the joint teaching of teachers and teachers, and the cultivation of students' skills. It is a talent training model that integrates enrollment and recruitment. Students do not leave their jobs, the school sends full-time

teachers to teach theoretical knowledge and basic skills, the company sends masters to teach professional skills to implement formal education, so as to gain knowledge, skills and education. It combines the advantages of both academic and in-service vocational training. In theory, it is an ideal form of education in the training of vocational education talents. It promotes the interactive development of the vocational education system and the labor employment system, and can effectively solve some of the problems existing in the current school-enterprise cooperation in vocational education in China. Innovate the mode of educating people in vocational education, give full play to the leading role of enterprises, and participate in the training of vocational education talents. First, enterprises and schools jointly enrolled students for enrollment, optimized the enrollment plan for modern apprenticeships between schools and enterprises, and signed two agreements. Second, enterprises and schools jointly cultivated and optimized the modern apprenticeship training program for both schools and enterprises. Two sets of plans are formulated; the third is that the enterprises and schools jointly conduct teaching, optimize the teaching process of modern apprenticeship talents of both schools and enterprises, and formulate two sets of standards. The school-enterprise cooperation was implemented separately and synergistically, and the vocational education talent training model was innovated.

## 7. Policy Recommendations

According to the conclusions obtained from the development history and situation of China's vocational education, a management model of vocational education that meets the requirements of economic development in the new era is proposed. As an important force supporting the development of vocational education, the government should make policy guidance on the development of vocational colleges based on the needs of current

economic development and industrial upgrading, and formulate guiding opinions for promoting the cooperation between schools and enterprises and the integration of industry and education. Vocational colleges should take advantage of the trend and take the service industry to upgrade and develop the demand for the reform of the vocational education management model. Enterprises should take the initiative to lead the industry upgrade, strengthen cooperation with industry-university-research institutes in vocational colleges, and innovate production technology.

In response to the modern vocational education management model and the problems faced, the proposed policy recommendations include that government departments should give full play to their strong information acquisition and comprehensive coordination capabilities, and promote the connection and interaction between vocational colleges and enterprises through system construction. Taxes, loans and other benefits to encourage and attract more companies to cooperate with vocational colleges. Vocational colleges should pay attention to administrative reforms, and should closely combine scientific research, teaching, and production.

In optimizing China's modern vocational education management model, enterprises should strengthen cooperation with vocational colleges' talent training mechanism, provide order production demand, and technology innovation research and development. Enterprises should promote the innovation of modern vocational education management model innovation. In addition, enterprises should provide the necessary practice base for vocational college students and improve the modern apprenticeship system. Enterprises should promptly feedback the market, industry, and enterprise demand information for talents to the higher vocational colleges, and standardize and guide the curriculum reform and teaching management model innovation of vocational colleges.

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