

# SWOT ANALYSIS OF COOPERATIVE EDUCATION IN PRIVATE UNIVERSITIES -TAKING SHANDONG ENGINEERING VOCATIONAL AND TECHNICAL UNIVERSITY AS AN EXAMPLE

SU LIYOU 6417195028

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### **SU LIYOU**

This Independent Study has been Approved as a Partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management

Advisor:	面	*	32		
	(Dr.L	iao Z	higa	0)	

Date: 12 / 14 / 207)

(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business Administration

Date...../.../.../.../.../ Siam University, Bangkok, Thailand Title: SWOT Analysis of Cooperative Education in Private Universities—

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as an Example

By: Su Liyou

**Degree:** Master of Business Administration

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Advisor: \( \begin{aligned}
\b

(Dr. Liao Zhigao)

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### **ABSTRACT**

In recent years, the Chinese government has paid more and more attention to vocational education and proposed that it should vigorously develop higher vocational education and implement a cooperative education talent training model. "Cooperative education" has become an inevitable choice for private colleges and universities to enhance their competitiveness.

The objectives of this paper were: 1) To explore the situation of private university-Shandong Engineering Vocational and Technical University cooperative education work by adopting SWOT analysis; 2) To select the most suitable operation strategy for Shandong Engineering and Technical Vocational University cooperative education.

This paper adopted the documentary research method and took Shandong Engineering Vocational and Technical University as the research object to study its cooperative education strategies. Through the SWOT analysis of Shandong Engineering Vocational and Technical University, we found that:

- 1) The university has excellent educational conditions, advanced teaching concepts, reasonable professional settings, and diverse cooperative education models, there are also problems such as insufficient funds, insufficiently standardized management, unstable teachers and management teams, and lack of in-depth cooperation between schools and enterprises. While the rapid development of higher vocational education brings opportunities to it, it also faces various threats from society;
- 2) Through the SWOT analysis matrix, this paper finally chose the SO strategy, which is the expansion development strategy. The universities should seize the historical opportunity, give full play to its own advantages, make up for shortcomings, vigorously develop cooperative education, and at the same time boldly innovate to build an in-depth and sustainable cooperative education competition strategy.

Keywords: private universities, cooperative education, SWOT analysis.

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Su Liyou Dec 1, 2023

### **DECLARATION**

I, SU LIYOU, hereby certify that the work embodied in this independent study entitled "SWOT Analysis of Cooperative Education in Private Universities—Taking Shandong Engineering Vocational and Technical University as an Example" is result of original research and has not been submitted for a higher degree to any other university or institution.

Su Li You.

(Su Liyou)

Dec 1, 2023

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### **Chapter 1 Introduction**

### 1.1 Background of the Study

In recent years, vocational education has developed vigorously, and the cooperative education talent training model has become a key development direction of vocational education. Therefore, the cooperation between universities and enterprises has become increasingly in-depth, and the cooperation model is constantly innovating. Despite this, there are still unexpected problems in the actual operation of cooperative education in higher vocational universities, such as: the enthusiasm of both parties to participate in cooperative education is not high, the management system and operating mechanism cannot guarantee the sustainability of cooperation, and cannot form a win-win symbiosis between schools and enterprises. strategic partnerships and so on (Hao, 2021).

The successful cooperation models of foreign countries such as Germany's dual system and the United States' cooperative education have provided Chinese scholars and experts with analytical and material education models, and also provided practical references for Chinese occupations. After analyzing materials, the vocational education community has also emerged with strong cooperation models such as school-enterprise order-based cooperation, but it is still plagued by problems such as the inability to recover, the inability to cooperate, and the inability to sustain the convergence of education. These problems have become an impact on the healthy development of China's vocational education. bottleneck problem. Some scholars attribute this to the fact that state-run universities are trapped in the system. So whether private universities can solve this fundamental problem in this field, it is necessary to weaken the problem and explore it (Nian, 2019).

With the support and encouragement of national policies, private universities have developed rapidly, with the number of enrolled students reaching new highs, and they have become an important force in vocational education. Affected by traditional concepts and limited funds, there is still a gap between the graduates trained by private universities and the talents needed by enterprises, and they are at a disadvantage in the competition with state-run universities in talent training. So, how to make use of its flexible and efficient system and mechanism advantages to better carry out win-win cooperation between schools and enterprises, ensure the quality of training for many students, and establish a scientific and standardized talent training system; how to innovate the system and choose a cooperation model that suits you; how to ensure A series of focus issues such as making cooperative education sustainable and efficient in the fierce market competition must be key issues that our private universities need to solve urgently (Zhu, 2020).

Shandong Engineering Vocational and Technical University is one of the first 15

undergraduate-level vocational universities in the country approved by the Ministry of Education. It offers 26 undergraduate majors and 49 junior college majors, with nearly 23,000 students enrolled. For more than 30 years since its establishment, the school has always adhered to the school positioning of "new engineering, integration, and vocational", adhered to the integration of industry and education, and the development path of cooperative education, and has embarked on a development path of a vocational and technical university that "highlights the characteristics of engineering and focuses on connotation construction" road. Therefore, the university is relatively representative and research-oriented in terms of its nature, scale, school-running positioning, and cooperative education objects (Shandong Engineering Vocational and Technical University, 2023).

### 1.2 Problems of the Study

Through a SWOT analysis of the current situation of cooperative education in Shandong Engineering Vocational and Technical University, this article finds that there are many problems in cooperative education. Study how to solve problems such as insufficient funds, insufficiently standardized management, unstable teachers and management teams, relatively low overall quality, low enthusiasm of enterprises to participate in cooperation, and lack of in-depth cooperation between schools and enterprises. In order to promote cooperative education in private universities and serve the local economy develop better suggestions. The specific research questions are as follows:

- 1. Based on SWOT analysis, what is the current situation of cooperative education in Shandong Engineering Vocational and Technical University?
- 2. Which strategy should be chosen to better promote the cooperative education work of Shandong Engineering Vocational and Technical University?

### 1.3 Objectives of the Study

The purpose of this paper is to further enrich the innovation needs of the talent training model of private universities in my country, improve the relevant theories of the cooperative education operation model of private universities, and provide constructive suggestions for improving the core competitiveness of private universities and cultivating skilled talents through cooperative education. Therefore, the research purposes of this article have the following two purposes:

- 1. To explore the situation of private university-Shandong Engineering Vocational and Technical University cooperative education work by adopting SWOT analysis, to find its strengths, weaknesses, opportunities and threats;
- 2. To choose a development strategy suitable for the cooperative education work of Shandong Engineering and Technology Vocational University.

### 1.4 Scope of the Study

In the 1980s, the concept of cooperative education was introduced to China from abroad. After the introduction of the theory of cooperative education, it was mainly based on the actual situation of cooperative education in China and conducted research and practice. Through CNKI, a total of 68,134 articles were retrieved with the theme of "Cooperative Education, Private Universities", which is a huge number. A total of 119 articles were retrieved with the theme of "Cooperative Education, Private Universities, SWOT Analysis", and a total of 37 related documents in the past five years (2019-2023 to present), including: 15 articles in 2019; 9 articles in 2020; 7 articles in 2021 articles; 4 articles in 2022; 2 articles since 2023. Due to the national system, the concept of private universities is almost not covered in foreign literature, and the corresponding literature cannot be retrieved. Judging from the quantity of literature, it reflects to a certain extent the current lack of SWOT analysis and research on cooperative education in private universities in China. Therefore, the research in this article is very meaningful.

In the form of a literature review, this article is based on the SWOT analysis of cooperative education in private universities in China in the past five years, focusing on the field of cooperative education in private universities in order to formulate better work strategies.

Due to the specific national conditions of China as a developing country and the deep-rooted traditional culture, the cooperative education work of private universities is more susceptible to the influence of national policies, social cognition, corporate reality, international environment and many other factors, and has relatively distinctive Chinese characteristics. This study starts from the needs of social and economic development and applied human resource reserves. In view of the current lack of research, through comprehensive theoretical research and in-depth SWOT analysis, we conduct a comprehensive analysis of the cooperative education of Shandong Engineering Vocational and Technical University and study how to summarize it. own advantages and disadvantages, how to make good use of external opportunities and challenges, summarize the current situation of cooperative education in Shandong Engineering Vocational and Technical University, choose the most suitable development strategy for cooperative education in Shandong Engineering and Technical Vocational University, and propose effective and feasible cooperative education models for private universities. suggestions for improvement.

### 1.5 Significant of the Study

Cooperative education is an inevitable trend in the development of vocational education and the key to building a modern vocational education system. It not only

helps to enhance the core competitiveness and attractiveness of private universities and improve the suitability of technical talent training, but also helps to alleviate technological crises, promote the transformation and upgrading of industrial structures, and promote sustainable economic development. However, the current cooperative education in private universities and the results achieved are still unsatisfactory. Both the top-level design level and the specific implementation level need to be further improved and perfected. Therefore, it is of great reference and guidance significance to use the SWOT analysis method to analyze the advantages, disadvantages, opportunities and challenges of cooperative education in private universities, and to explore the reform strategies of cooperative education in private universities. The details are as follows:

#### 1.5.1 Theoretical significance

The research on cooperative education in China is still in its infancy, and the construction of cooperative education in private universities needs further in-depth research. This article takes Shandong Engineering Vocational and Technical University as a case study, draws on its successful experience in cooperative education, summarizes and summarizes the current situation of cooperative education in private universities, and puts forward targeted countermeasures and suggestions, which can provide guidance for the long-term development of cooperative education in Chinese vocational universities. Providing reference and theoretical basis is also conducive to the development of vocational education theory.

#### 1.5.2 Practical significance

# 1. It can provide a scientific and objective positioning for the current situation of university cooperative education

With the help of SWOT analysis method, this article analyzes the internal strengths and weaknesses of Shandong Engineering Vocational and Technical University, and discusses its external opportunities and threats, so as to better understand its own situation and accurately understand its status and existing challenges in the development process. Problems, opportunities and challenges faced, provide a basis for proposing development strategies suitable for the university.

# 2. It can provide a basis for universities to formulate correct cooperative education strategies

To promote the healthy and sustainable development of cooperative education, we must comprehensively grasp the internal and external environment of the university, reorganize its four elements of advantages, disadvantages, opportunities, and threats, exploit strengths and avoid weaknesses, seek advantages and avoid disadvantages, and formulate scientific and reasonable development strategies. This

article uses the SWOT analysis matrix to analyze and study four different types of strategic combinations: Strengths-Opportunities (SO), Weaknesses-Opportunities (WO), Strengths-Threats (ST) and Weaknesses-Threats (WT), and finally determines SO This development strategy provides Shandong Engineering Vocational and Technical University with strategic options suitable for the development of cooperative education, which can better improve the core competitiveness of the university.

# 3. It can provide a basis for the innovative development of cooperative education models in private universities

This paper proposes optimization plans and safeguards for university cooperative education strategies. The analysis and research of this article can provide certain reference significance for the innovative development of cooperative education strategies in China's private universities, further promote the characteristic education of private universities, explore the leapfrog development path of private universities, promote the reform of the collaborative education system and mechanism of cooperative education, and inspire It is of guiding significance to cultivate the potential of domestic demand for talent cultivation, enhance the competitive vitality of private universities in the market, expand the social service capabilities of private universities, and promote regional economic reform and development.

### **Chapter 2 Literature Review**

# 2.1 The definition and development history of private universities in China

### 2.1.1 Definition of private universities in China

In 1995, China defined the concept of private universities in the Education Law of the People's Republic of China. Specifically, it pointed out that private universities mainly refer to enterprises, institutions, social groups and other social organizations and citizens in accordance with relevant laws and regulations. Private universities are universities established using non-state financial education funds and providing relevant educational services to the society. Private universities are one of the important components of higher education in China.

The subjects of running private universities take a diversified form. In terms of funding channels, private universities can be divided into many different investment models such as individual investment in running schools, education groups, overseas cooperative running of schools, and public restructuring. From the perspective of training methods, private universities can be divided into different education models such as higher education, higher vocational education, adult higher education examinations, and self-study examinations (Ministry of Education of China, 1995).

The research object of this article is private higher vocational education universities. Higher vocational education is the most important component of China's higher education system. Specifically, it refers to selecting appropriate professional settings according to social and market needs, and conducting a series of education and training according to the job requirements of different majors to achieve the purpose of education. Higher vocational education emphasizes pertinence and market orientation.

From the current definition of private higher education and higher vocational education in academic circles, private higher vocational education can be defined as: organized by non-governmental social organizations using diversified financing methods through non-financial channels, and receiving supervision and supervision from relevant national departments. Higher vocational education institutions that manage and participate in the national unified admissions examination. As an important part of China's higher education, private higher vocational education must comply with relevant Chinese regulations in all aspects (Liu, 2018).

### 2.1.2 The development history of private higher education in China

Looking back on the development process of private universities in China over

the past 40 years since the birth of private universities in 1978, and taking into account the development characteristics of China's private higher education in terms of policy environment, development speed, school scale and school form, the development process of China's private higher education can be roughly divided into Four stages (Fang, 2017).

### 1. Recovery period (1978-1991)

Since 1977, China has resumed the unified national college admissions examination that had been stagnant for 10 years. Cultural cram schools have appeared in some big cities such as Beijing and Shanghai, marking the emergence of the prototype of China's private higher education. During this period, the "Constitution of the People's Republic of China" revised in 1982 stipulated: "The state encourages collective economic organizations, national enterprises and institutions, and other social forces to organize various educational undertakings in accordance with legal provisions." In 1985, the "About Us" issued by the Central Committee of the Communist Party of China The Decision on Educational System Reform pointed out that "it is necessary to fully mobilize the enthusiasm of enterprises, institutions and business departments, and encourage collectives, individuals and other social forces to run schools." The introduction of these policies has provided a solid foundation for the rise and development of private higher education in China. The legality guarantee has also caused the development of private higher education to receive widespread attention from all walks of life. At this stage, private higher education mainly takes the form of cultural tutoring, vocational skills training, correspondence education and higher education self-study examination assistance, and is basically limited to the field of non-academic education.

#### **2. Exploration period (1992-1996)**

Under the guidance of the essence of Deng Xiaoping's "Southern Talk" and the important spirit of the 14th National Congress of the Communist Party of China, China's private higher education has entered a period of ideological emancipation and vigorous exploration. The 14th National Congress of the Communist Party of China proposed to "encourage multiple channels and forms of social fund-raising and private education, and change the practice of state-run education." In 1993, it was mentioned in the "Outline for China's Education Reform and Development" promulgated by the Party Central Committee and the State Council, "The state adopts the policy of actively encouraging, vigorously supporting, correct guidance, and strengthening management of social groups and individual citizens to run schools in accordance with the law." The spirit of these documents has greatly inspired all sectors of society to invest in education, and has also set off a wave of private power to run schools. College craze.

In 1992, China's private higher education entered the stage of academic education from non-academic education. In 1993, the country began pilot projects for higher education diploma examinations in some provinces and cities. In the same year, the "Interim Regulations on the Establishment of Private Higher Education Institutions" was successfully promulgated, which marked the initial stage of China's private higher education management from "disorder" to "standardization". With the continuous development of private higher education, shortcomings and survival difficulties are beginning to emerge. For example, it is difficult to guarantee the quality of school running, a few universities are too pursuing profits and ignore the public welfare of education, and there is a lack of consensus on the management of public-run universities. The government and education administrative departments, private university organizers and managers, and other private higher education stakeholders are in urgent need of further clarification, standardization and adjustment in policy formulation, school running philosophy, management behavior, financing methods, connotation construction, etc.

### 3. Standard improvement period (1997-2015)

The problems faced by private higher education in the development process have made its demands for behavioral norms and system improvement increasingly urgent. In 1997, the "Regulations on Running Schools with Social Forces" was promulgated, marking China's private education entering a new stage of legal management and running schools in accordance with the law. It also laid an important foundation for the country to formulate other relevant laws on private education. In 1999, the State Council approved the Ministry of Education's "Education Revitalization Action Plan for the 21st Century" and proposed that "in the next three to five years, a schoolrunning system with the government as the main body, participation from all sectors of society, and joint development of public and private universities will be basically formed. ." In June of the same year, the Central Committee of the Communist Party of China and the State Council emphasized in the "Decision on Deepening Educational Reform and Comprehensively Promoting Quality Education" that "any school-running form that complies with relevant national laws and regulations can be boldly tested." In 1999, the state promoted higher education. In line with the popular development strategy, colleges and universities have implemented an enrollment expansion policy, and the Ministry of Education has established and approved a number of vocational and technical colleges and private universities qualified to issue academic diplomas based on existing educational resources.

The promulgation of the Private Education Promotion Law of the People's Republic of China in 2002 and the Implementation Regulations of the Private Education Promotion Law of the People's Republic of China in 2004 marked that the management of private higher education in China has entered the stage of governing teaching, running schools, and running schools in accordance with the law. The new

stage of management effectively ensures the sustainable development of private education. As a specialized law that promotes the standardized development of private education, the "Private Education Promotion Law of the People's Republic of China" and its implementation regulations play a decisive role in the future development of private higher education.

In 2005, the National Development and Reform Commission, the Ministry of Education, and the Ministry of Labor and Social Security jointly issued the "Notice on Issuing the Interim Provisions on the Administration of Private Education Fees", as well as the "Notice on Education Tax Policies" issued by the Ministry of Finance and the State Administration of Taxation. Notice", in 2007, the Ministry of Education issued the "Several Provisions on the Management of Private Higher Education Institutions" and the "Measures for the Establishment and Management of Independent Colleges" and other documents. The content and regulations of the relevant systems are closer to the actual development of private education in China, and the management of private universities and development issues have also been further regulated, which has had a positive and important impact on the healthy and sustainable development of China's private education.

The "National Medium and Long-term Education Reform and Development Plan (2010-2020)" promulgated in 2010 clearly stated that "actively explore the classified management of for-profit and non-profit private universities" and "carry out the management of for-profit and non-profit private universities" Classified management pilot". In October of the same year, the "Notice of the General Office of the State Council on Launching the Pilot Program of National Education System Reform" further stipulated that "exploring methods for the classified management of for-profit and non-profit private universities". As a result, classified management has become a new topic in the reform and development of China's private education.

In 2013, the Third Plenary Session of the 18th CPC Central Committee pointed out that "the market plays a decisive role in resource allocation", highlighting the market's dominant role in resource allocation in various fields of social production; it also emphasized that the government should participate in the resource allocation process. It plays a more active and comprehensive role in maintaining economic stability, making up for market failures and suppressing economic fluctuations. Therefore, for private universities that mainly use non-state fiscal funds as funding for running schools, how to determine the role boundaries of the government and the market in the practice of classified management so that both parties can better maximize utility in resource allocation has been a problem. It has become a key issue faced by the current development process of private universities.

#### 4. Quality improvement and specialization period (2016-present)

With the rapid development of China's higher education from elite to mass and

then to universalization, "providing education that satisfies the people" has become the strongest voice of higher education in the new era. In November 2016, the Standing Committee of the Twelfth National People's Congress passed the second amendment to the "Private Promotion Law", marking that private universities have officially entered a new stage in which classified support, classified management, and differentiated development are the main lines. Private higher education has also transformed from the early extension-type expansion of scale to connotation-type high-quality development, which is of great significance for private universities to follow the path of connotation, distinctiveness, high-end, and sustainable development. The first is to highlight the public welfare nature of education and the flexibility of the mechanism; the second is to focus on for-profit private universities, under the legal system of "reasonable returns", focus on the correct direction of running schools and cultivating high-quality talents, and actively guide the direction of China's private higher education The road to diversified, high-end, and global development (Que, Wang, & Wang, 2019).

### 2.2 The definition of cooperative education

Cooperative education, in short, is a cooperative model established by universities and enterprises. Cooperative education first originated in the United States. It refers to the joint participation of universities and enterprises in talent training, using the resources of both parties, and combining on-campus learning with corporate practice to provide enterprises with high-quality and highly skilled talents. Cooperative education can be divided into two levels: university and enterprise. From the perspective of universities, through cooperative education, vocational universities can connect with the market and cultivate front-line practical skilled talents for society and enterprises in a targeted manner. It allows students to combine the knowledge they have learned in school with corporate practice, and allows the technology and equipment resources of universities and companies to be shared to improve the quality of education. From the perspective of enterprises, cooperative education can make full use of the knowledge resources of vocational universities, convey corporate culture and production concepts to more people, and expand brand influence. In the process, corporate technical personnel can also achieve mutual learning and improve their own abilities., Promote better development of enterprises.

To sum up, cooperative education means that both schools and enterprises jointly study majors and curriculum settings, talent training goals, teaching plans and content arrangements based on the needs of industry and technology structure, market demand, enterprise development, etc., and make decisions together and share responsibilities. Risks and responsibilities are shared in the vocational education model of corresponding educational management work, so as to achieve the ultimate goal of joint participation, resource sharing, mutual benefit, and win-win cooperation

between schools and enterprises. At present, the common forms of cooperative education in China generally include the following: 1. Establishing a base in an enterprise; 2. Establishing a cooperative education technical service institution named after the enterprise; 3. Jointly organizing order-based classes; 4. Co-building of majors, etc. (Zhao, 2019).

### 2.3 The significance of cooperative education

### 2.3.1 Implement the policy of integrating education and labor

In the reform process of China's education and teaching system in recent years, the integration of education and labor has become a key content of China's education reform, which requires universities to increase students' practical activities in the training and education process of students, that is to say, according to the actual situation It is necessary to actively arrange for students to participate in related labor. The cooperative education model is the main way and main measure to implement the education policy of integrating education and labor. The adoption of cooperative education school-running model can achieve the combination of three aspects:

The first aspect is to realize the combination of "identity". Each student has the dual role and identity of "educator" and "worker" in the cooperative education model;

The second aspect is to combine the teaching content with the actual work content, and improve students' practical work ability through mutual combination to achieve the purpose of education and teaching;

The third aspect is the combination of theory and practice. Therefore, in order to implement the policy of integrating education and labor in education and teaching, we must actively promote the development of cooperative education and teaching models.

Through the application of cooperative education model, students can be guided to actively participate in the production labor of enterprises with the support of relevant theories, and the combination of education and labor can be achieved. On the one hand, the implementation of the cooperative education model can achieve the cultivation of all-round people; on the other hand, through the development of the cooperative education model, it can comprehensively improve the production capacity of enterprises, provide enterprises with excellent technical talents, and fully implement China's relevant education and teaching policies.

### 2.3.2 Achieve resource sharing and complementary advantages

For vocational education, vocational universities and enterprises play different roles. Both parties have their own advantages. Through cooperative education and running schools, the sharing of resources and the complementary advantages of both parties can be achieved. Modern society has an increasing demand for talents, which not only requires talents to have rich theoretical knowledge, but also to have strong practical ability and problem-solving ability.

In terms of talent training, colleges and universities have a good educational environment, have great advantages in both hardware and software environments, have strong teacher resources, and have also formulated relevant systems and talent training systems. The talents trained by universities serve the market, but compared to enterprises, universities do not understand the market well enough, which leads to certain flaws and deficiencies in talent training. Enterprises are the main body of the development of market economy. Their main goal in the development of market economic benefits, they must rely on strong human resources. Although companies understand the market and their requirements for talents, they lack relevant teaching and training equipment and environment, so they need to cooperate with universities to obtain the required talents.

In higher vocational education, the cooperative education model can not only meet the needs of enterprises for talents, but also reduce and reduce the burden of enterprises on talent education and training. At the same time, during this process, the company can send some employees with rich experience and information to participate in students' education and teaching activities, so that students can fully grasp the requirements of all aspects of practical work and improve the efficiency of student learning.

On the one hand, in the cooperative education model, companies can give priority to selecting the talents they need from graduates and improve the company's human capital. At the same time, enterprises can make full use of the university's various hardware equipment and implementation and teaching staff when conducting employee training, and improve training efficiency on the basis of reducing enterprise training costs.

On the other hand, from the perspective of universities, the cooperative education model can provide students with practical opportunities. At the same time, it can also realize the training of dual-qualified teachers in universities. In this process, teachers can be put into practice in enterprises to improve the comprehensive quality of teachers and further improve the teaching resources of universities.

### 2.3.3 Conducive to enhancing the strength of vocational universities in running schools

The traditional vocational university teaching model has been unable to meet the needs of modern society for talents and is facing a series of obstacles and problems in its development. In the traditional teaching model, vocational universities do not

target the needs of the market in terms of talent training. That is to say, in terms of talent training, they do not train talents in accordance with the principles of market-oriented and on-demand training. At the same time, vocational universities have different curriculum structure settings. There are also certain differences in market demand for them.

In the process of development, vocational universities blindly pursue the number of majors and students, and fail to cultivate talents according to the market's demand for talents. As a result, the talents trained by vocational universities cannot adapt to the needs of the market, reducing the employment rate of vocational university students, resulting in Certain problems have arisen in the development process of vocational universities. "Higher academic qualifications" have become one of the goals pursued by the Chinese society. At the same time, enterprises also blindly pursue high academic qualifications in talent recruitment, resulting in certain disadvantages for graduates of vocational colleges in terms of employment. Cultivating technical talents that meet the needs of enterprises is the main goal of talent training in vocational universities. In talent training, whether vocational universities are market-oriented has become the key to determining whether the talents they train meet the company's job requirements. Therefore, under this background, vocational universities must actively change their development ideas, change the traditional school-running model, actively promote and implement the cooperative education school-running model, and make full use of the resources and advantages of enterprises to improve the quality of vocational universities (Liu, 2018).

### 2.4 Review of cooperative education research literature

### 2.4.1 Review of foreign research literature

Western developed countries have been conducting research on cooperative education for hundreds of years. After the Second World War, the rapid economic rise of Western countries benefited from the maturity and perfection of the cooperative education model to a certain extent. The essence of cooperative education is the integration of work and study, which is a form of open education. "From the perspective of the development process of theoretical research and practical exploration of cooperative education in Western developed countries, the rise of early cooperative education thought in Germany in the late 19th century and educational thought and pragmatism philosophy in the United States in the early 20th century laid the foundation for the development of cooperative education research. The theoretical cornerstone" (Liu, 2018).

In 1862, the U.S. government passed the Morrill Act. The bill stipulates that the federal government will allocate a certain amount of land to each person based on the

number of members of Congress in each state, and use the proceeds from land grants to fund the establishment of at least one agricultural and industrial college in each state, mainly teaching knowledge about agriculture and mechanical skills. Cultivate the specialized talents needed for the development of industry and agriculture. This created a new school-running model, which is regarded as a milestone in the development of higher agricultural majors and vocational education in the United States.

In 1906, Herman Schneider of the University of Cincinnati first proposed industry-university cooperative education. He believes that it is difficult for students to truly master practical skills by relying solely on classroom teaching. To solve this dilemma, on the one hand, students must go to work in companies and factories to practice their skills in actual positions; on the other hand, through internships, students will Problems, experiences and feelings encountered during operation are fed back to the classroom to provide help for classroom teaching, thus realizing the combination of classroom teaching and corporate practice. The purpose of industryuniversity cooperative education is to fundamentally solve the situation of separation between education and society, cultivate students' comprehensive quality, comprehensive ability and employment competitiveness, promote the flow of knowledge and technology transfer between universities and enterprises, and effectively improve scientific and technological achievements. Conversion rate (Shang Jun & Luo Jianqi, 2011). The United States is the first country to propose cooperative education, and this model is the prototype of cooperative education. In 1946, the American Professional Association pointed out in the "Declaration of Cooperative Education" that cooperative education is an education model that combines theoretical learning with real work experience (Tang, 2015).

The UK is a highly developed capitalist country and has a long history of research on cooperative education in higher education. In his 1987 book "Technology and Economic Operation: Experience from Japan", British Professor Freeman believed that raising cooperative education to a national strategic level would be conducive to better improving national science, technology and engineering technology. level, which is conducive to promoting national economic development and enhancing the country's international competitiveness (American Federation, 2001). This shows that cooperative education needs the support of national policies and systems, and the government must also play a corresponding role.

In terms of motivations for cooperative education, Peter & Fusfeld (1982) believe that in cooperative education, enterprises can provide financial and equipment support, provide certain material guarantees for cooperative education, relieve the pressure on government funds, and college students can also get opportunities for practical training., thereby improving the ability to analyze and solve problems.

As for the reasons for increasing cooperation between academia and industry, foreign scholar Senker (2001) believes that on the basis of government financial funds and resource support, universities also need to receive funding and support from other social aspects; the market is changing rapidly and enterprise competition is becoming increasingly fierce. Enterprises cannot meet the demand for technological R&D by relying solely on their own strength. In order to shorten R&D time and improve R&D success rate, enterprises need to seek R&D results from academia; government-led R&D means high spillovers and larger returns.

Foreign scholar Dem etrion believes that teaching methods based on classrooms and laboratories can no longer meet the needs of vocational education. It is also necessary to create a work environment for students that can actually train students' practical skills, so that students can achieve "employment upon graduation" (Qiu, 2012).

Foreign scholar Peter Damlund Koudahl (2010) believes that in some countries such as Denmark and Germany, vocational education and training are based on the principle of dual education. While apprentices receive education and training at a vocational college, they also participate in the normal working life of the company. Stronger links with working life mean the transition from apprenticeship to fully trained employee is easier than in school-based VET systems. The dual education principle in vocational education and training can provide the labor market with a highly qualified, adaptable workforce capable of applying new technologies. Furthermore, educated and trained skilled workers have high mobility in the labor market according to the principle of dual education.

In terms of the cooperative education model, (1) The United States adopts cooperative education. Students need to go to companies for practice and combine the theoretical knowledge learned in universities with work experience. Moreover, company personnel can also teach students, cultivate students' professional abilities, and evaluate Students' performance and work ability during internship (Wang, 2017). (2) Germany adopts the "dual system" school running model. According to market demand, as enterprises in the "dual system" provide practical jobs for universities, vocational universities are responsible for teaching theoretical knowledge to students, and the education targets include vocational university students and enterprises. The dual identity of apprentices (Tang, 2015). For companies that provide interns, certain tax exemptions are available. (3) The UK adopts the "sandwich" model, that is, the "theory-practice-theory" model, where students alternate theoretical learning and practical work, and students can also receive corresponding rewards during practical internships (Hong, 2017). (4) Australia adopts the "Technical And Further Education" (TAFE) model. According to the national "Vocational Training Law", students must participate in skills training and participate in a variety of training courses to meet their needs. Different training requirements, the Australian government stipulates that only those who have obtained a TAFE certificate can engage in relevant technical jobs.

By reviewing the literature, it can be seen that the cooperative education research in major Western developed countries has distinctive national characteristics. They are based on the national conditions of the country and complement the economic development model of the country. They are not only prompted by the national conditions of the country, but also have a great impact on the country's economy. great promotion effect. Due to different national conditions, although there is a slight gap between domestic private universities and private universities in developed countries abroad, the starting point of cultivating talents through cooperative education is the same. Its advanced development concepts, operation methods, management levels, etc. are also different for domestic private universities. It is highly inspiring and useful for reference.

#### 2.4.2 Domestic research literature review

In the 1980s, the concept of cooperative education was introduced into China from abroad. After the introduction of the theory of cooperative education, it was mainly based on the actual situation of cooperative education in China and conducted research and practice. Through CNKI, we searched relevant literature in the past five years (2018-2022 to present) with the theme of "Cooperative Education, Private Universities" and found that although the number of studies in each of the past five years has not been much different, it has been increasing year by year. Further searching with the theme of "Cooperative Education, Private Undergraduate Colleges and Universities" resulted in only 163 fuzzy search results of articles in the past five years (2018-2022 to present), accounting for 23%. This reflects to a certain extent the current The deficiencies in theoretical research on cooperative education in private undergraduate universities in China.

Judging from the current research situation, China's research on cooperative education in private universities mainly involves the following aspects:

# 1. An exploration of the talent training model of cooperative education in private universities

Chen Weixia (2017) pointed out that "cultivating applied talents through the integration of industry and education has become the only way for the development of applied universities." Song Tingting (2018) believed that adopting a cooperative education model is an important measure to promote the good development of education, not only in It can greatly improve the quality of talent training and enable students to quickly adapt to the company after entering the company, thereby contributing to the development of the company. Feng Yan (2019) proposed the concept of "industry college" through research and pointed out that "the integration of industry and education is a closed channel formed by education and production. This channel can maximize the role of education and the role of enterprises, so the industry

Teaching integration is a process of two-way effort and two-way integration." Chen Mengmeng (2016) pointed out that "the talent training model determines the quality of talent training and also determines the foundation of social and economic development. Locality and application are the key to private undergraduate universities. The two main footholds. Therefore, universities should actively serve the pillar industries or characteristic industries that are key developments in the region, and set up special majors based on these characteristics, and strive to closely link the conversion of university scientific research results, technical services and policy consultation with the local economy. stand up."Yu Xiaoqian (2020) attributed the main problems in the current talent training model of private universities to the lack of characteristics in professional settings and curriculum systems; a single teaching model; a single source of teachers and a lack of dual-qualified teachers; and the obvious "examination-oriented education" in examination evaluation.

### 2. Research on the community of interests in cooperative education

Miao Haiting (2017) believes that "collaboration between universities and enterprises to cultivate talents can make full use of the advantages of both universities and enterprises, achieve resource sharing, and achieve multi-party benefits." After investigation and analysis, Sun Shanshan (2015) believes that "there are problems in the practice of cooperative education in universities The important reason for many problems lies in the uneven distribution of interests among the participants. Cooperative education in colleges and universities should take the mutual benefit and win-win of many stakeholders such as colleges and universities, enterprises, governments, students, teachers, society, etc. as its fundamental purpose." Wang Yan (2019) research shows that "building a cooperative education system based on schoolenterprise resource sharing is a practical need for private undergraduate universities to deepen the reform of higher education." And based on knowledge resource sharing, ensure the balance of interests, improve the supervision mechanism, etc. Propose the implementation path for school-enterprise resource sharing. Wang Xinying studied the problems existing in cooperative education in private universities and proposed that the key to solving the "bottleneck" of cooperative education is to jointly build an interest resonance mechanism for cooperative education among the four parties of "government, schools, government and enterprises" to achieve win-win interests for all parties. Mo Jiaojiao believes that cooperation between enterprises and universities can, on the one hand, help enterprises mobilize funds and provide enterprises with a large number of outstanding talents. On the other hand, the enterprise's practice platform can provide sufficient practical teaching experience for private universities, while achieving "zero wait" employment for students.

## 3. Research on the current situation of cooperative education in private universities

From the perspective of cost control of cooperative education, Xia Chunxun (2021) believes that the reasons for the low enthusiasm of enterprises in cooperative education are: first, the cost for enterprises to train students in private universities is relatively high; second, students serve enterprises, and enterprises cannot obtain equal amounts based on their own investment. Third, the scientific research capabilities of private universities are insufficient to achieve in-depth cooperative education. Li Ruijing (2021) research found that insufficient capital investment, insufficient attention to the practical link, and insufficient teachers are the practical problems existing in the cultivation of practical abilities of applied talents in private undergraduate universities.

# 4. Research on the long-term effectiveness of cooperative education in private universities

Hou Junhui (2019) "From a management perspective, taking vocational education jointly cultivated by schools and enterprises as an example, by analyzing the risks and countermeasures in the cooperation process, it is proposed that private universities should fully understand the compliance risks and contract performance in cooperation. Risks, management risks, etc., and then combined with the university's own development, improve the evaluation and assessment mechanism to mobilize the enthusiasm of project leaders, improve the cooperation process and operation supervision mechanism to ensure the healthy operation of the project." Wu Chunshan et al. (2018) believe that "private universities need constant Integrate regional resource advantages, continuously optimize the connotation construction of brand majors, further increase cooperative education, and explore new models of joint teaching between schools and enterprises; create a cooperative education-style teaching and research platform, encourage and support teachers to continuously publish high-quality teaching and research papers; Explore the establishment of a "teacher enterprise team" and continuously strive to create a deep integration of cooperative education." Wen Hongxiang (2015) believes that "cooperative education is mainly reflected in the mutual influence at the cultural level, and mutual penetration allows private universities to gradually evolve their campuses from the influence of cooperation. Culture, improving the comprehensive quality of students, cultivating high-quality applied talents for society, and realizing the true social mission of private universities have important practical guiding significance."

Comparing the research results at home and abroad through literature, it is found that foreign research on cooperative education is more abundant and has a broad perspective. It is at the forefront of research at both the theoretical and practical levels. Although domestic attention to the cooperative education model is increasing day by day, and research results are also increasing, the research objects and perspectives are relatively single, the content is repetitive, and the depth of the research is insufficient. Therefore, this study starts from the reality of the cooperative

education model of Shandong Engineering Vocational and Technical University, a private university under the background of transformation. By analyzing the school-running characteristics and effectiveness of its cooperative education, it analyzes the existing problems of cooperative education from macro and micro perspectives, and uses The SWOT analysis matrix provides strategic choices, thereby providing a reference basis for research on cooperative education in Chinese private universities.

### 2.5 SWOT analysis method

The SWOT analysis method was originally used in the field of management to provide a decision-making method for the operation and development of enterprises. Since then, it has been widely used in many fields. The four letters in SWOT analysis represent different meanings: S (strengths) are strengths, W (weaknesses) are weaknesses, O (opportunities) are opportunities, and T (threats) are threats, S and W are internal factors, O and T are external factors. In a sense, the analysis method is an internal analysis method of the enterprise, and its analysis is based on the enterprise's own information. For the SWOT analysis method, it can integrate the internal environment with the external environment based on the actual situation and related conditions, and build its own unique, high-level balanced analysis system based on the actual conditions. In addition, SWOT is more prominent and clear in terms of structural characteristics, and the SWOT matrix is its typical and main form of expression. For this matrix, it mainly consists of four parts. Each part has its own meaning and value. In terms of specific content, it mainly focuses on the structure, conducts in-depth analysis of the company's external environment, and conducts diversified and extensive internal resources at the same time. analyze.

The SWOT analysis method is usually used to formulate group development strategies and analyze competitors. It mainly has the following three contents and steps:

- 1. Analyze environmental factors;
- 2. Construct a SWOT matrix, as shown in Table 2.1;
- 3. Develop an action plan.

Table 2.1 SWOT analysis architecture diagram

external analysis internal analysis	S (Strength)	W (Weakness)
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O (Opportunity)	SO strategy	WO strategy
T (Threats)	ST strategy	WT strategy

The main guiding idea of this analysis method is: on the basis of a comprehensive analysis of the internal advantages and disadvantages of the competitive entities and the opportunities and challenges of the external environment, select appropriate strategies to implement, and combine their own goals and operations under uncertain environmental factors. Analyze and design activities, formulate strategies for future development, use strengths to overcome shortcomings, and form competitive advantages.

Apply SWOT analysis method to cooperative education in colleges and universities to analyze its internal and external competitive conditions and environment in order to find an effective cooperative education path. Using SWOT analysis method to analyze the current situation of cooperative education in private universities has a positive guiding role in the development of cooperative education in private universities.

### 2.6 SWOT analysis of cooperative education in private universities

#### 2.6.1 Strengths of cooperative education in private universities (S)

### 1. Market demand-oriented talent training system

As a private vocational university, it has greater flexibility in the process of development. It breaks through the limitations of traditional school-running thinking. Driven by relevant policies, actively adopting a reasonable cooperative education model is of great significance for talent cultivation. In the cooperative education school-running model, they can adjust the professional setting and teaching content in combination with market changes and the actual needs of enterprises, cater to the market's demand for talents, and provide favorable conditions and opportunities for the implementation of the cooperative education school-running model (Nian, 2019).

#### 2. Flexible and efficient university operation and management mechanism

Since private universities operate entirely in an entrepreneurial manner during the development process, they have a highly flexible and efficient operation and management mechanism during the development process. This feature can be fully utilized in the cooperative education school-running model, curriculum settings are carried out according to the actual needs of enterprises, and enterprises are invited to participate in the professional setting and curriculum setting of private universities to comprehensively improve the efficiency of cooperation between the two parties (Nian , 2019).

#### 3. School running characteristics are gradually taking shape

After years of development, private universities have initially formed their own distinctive school-running models. In particular, some universities have established a "professional + industry" 321 school-running model based on their own development needs and the requirements of investors and enterprises, that is, "college = department" "Department + Company", the application of this model has greatly improved the efficiency of university cooperative education and achieved innovative development of the cooperative education model (Liu, 2018).

### 2.6.2 Weaknesses of cooperative education in private universities (W)

#### 1. The teaching method cannot meet the market demand well

Judging from the current development of China's private universities, they have been influenced by traditional thoughts and concepts in the process of development. They pay too much attention to the cultivation of theoretical systems, have little interest in practical teaching, and do not fully realize the importance of cooperative education in running schools. importance, leading to the failure of the cooperative education model to achieve its due results. In terms of teaching methods, the teaching methods are not carried out in accordance with the needs of the market, which has a negative impact on the development of the cooperative education model of private universities to a large extent (Wang, 2022).

#### 2. Some private vocational colleges are weak and unattractive

Judging from the current actual situation of China's private universities, their infrastructure is not perfect, their school scale is relatively small, their teaching staff is unstable, their overall quality is low, and they have no distinctive features in vocational education. In the development of the cooperative education model, Among them, it is difficult to carry out in-depth cooperation with well-known companies in the industry and industry. These practical problems make it lack a certain degree of enthusiasm (Zeng, 2021).

#### 3. Lack of relevant government policies and institutional support

In the development of higher education, the government focuses on supporting and giving priority to the development of public universities. Relatively speaking, the government's support for private universities is very small. In terms of cooperative education in private universities, the government also lacks relevant policy and financial support, which restricts the in-depth development of cooperative education in private universities (Zhen, 2019).

### 2.6.3 Opportunities for cooperative education in private universities (O)

### 1. The state increasingly supports and attaches importance to cooperative education

First, China has introduced a large number of policies to encourage social capital to enter the private higher education market. For example, the promulgation of documents such as the "Private Education Promotion Law" and the "Private Higher Education Management Regulations" have allowed a large amount of private capital to enter the vocational education industry, effectively promoting and promoting the development of China's private education, and to a certain extent, establishing the status quo of private education. The legal status of higher education has played a positive role in promoting and promoting the development of private universities; secondly, the State Council's "Decision on Vigorously Developing Vocational and Technical Education" further proposed that China's vocational education should actively integrate production and education in the development process path of. The "Outline of the National Medium and Long-term Education Reform and Development Plan" proposes to further promote the development of the cooperative education model in China's education reform, which provides guarantee for the development of the cooperative education model of China's vocational universities from the institutional level (Chen, 2023).

# 2. Cooperative education has become an effective means to solve employment problems

In modern society, Chinese residents have a very strong willingness to invest in education. People expect to improve their personal competitiveness and realize their personal value by receiving higher education. Private vocational colleges have autonomy and flexibility in the actual development process. Therefore, private vocational colleges can adapt to the needs of market economic development. This also gives private vocational colleges many advantages in terms of technical talents.

It can be seen from the current situation of China's social development that the contradiction between "labor shortage" and "employment difficulty" is very prominent in China's economic development. On the one hand, with the continuous expansion of China's higher education institutions, a large number of college students are facing unemployment after graduation. risks; on the other hand, it is difficult for Chinese companies to find talents suitable for their development in the process of development. The cooperative education model can effectively achieve a balance

between university labor supply and enterprise talent demand, and solve the problem of students' "employment difficulty" and enterprises' "employment difficulty" (Zhao, 2019).

### 2.6.4 Threats from cooperative education in private universities (T)

### 1. Lack of laws specific to cooperative education

Although China's actual situation currently involves cooperative education in various documents and policies, there is currently no specific law on the standards of cooperative education in China and the relevant regulations on cooperative education, resulting in private vocational Universities lack corresponding basis and standards in the process of cooperative education, which has a great negative impact on the innovative development of cooperative education models in China's private vocational universities (Zhu, 2019).

### 2. Encountered a crisis of trust due to the influence of traditional concepts

Although our country's social education has developed rapidly in recent years, and our country has also issued a large number of policies and documents to actively attract social capital to participate in university running, from the current actual situation, our society's response to private higher vocational colleges The serious lack of trust has largely affected the innovative development of cooperative education models in private higher vocational colleges in my country (Zhu, 2020).

### 3. The role of industry associations is not obvious

Due to the current lack of special laws and regulations, the role of industry associations in cooperative education in private higher vocational colleges cannot be effectively played. At the same time, my country's professional qualification system is not yet sound enough, causing professional positions to face greater challenges(Xiong, 2019).

### **Chapter 3 Research Methodology**

This paper uses the documentary research method to collect, organize and analyze the research literature and practice reports on similar topics in China in the past five years to understand the research results and research status related to cooperative education in private universities. At the same time, we draw on relevant philosophical works at home and abroad as theoretical support, and conduct an indepth study of its causes and development status through the surface. The specific argumentation process of this article is as follows:

First of all, it clarifies the definition and development history of China's private universities and the definition and significance of cooperative education, so as to clarify the conceptual definition of private universities and cooperative education under the Chinese system, so that readers can better understand the meaning and meaning of China's private higher education. historical development process and understand its particularities;

Secondly, in the review of foreign literature, from the perspective of the development process of theoretical research and practical exploration of cooperative education in Western developed countries, it elaborates on the passage of the "Morrill Act" in the United States in 1862, after more than 160 years of development, to the contemporary United States The emergence, existence and development process of cooperative education models represented by "cooperative education", Germany's "dual system", Britain's "sandwich" and Australia's "TAFE"; to prove that the research on cooperative education in major Western developed countries has Distinctive national characteristics are based on the country's national conditions and complement the country's economic development model. They are not only generated by the country's national conditions, but also have a great promotion effect on the country's economy;

Thirdly, in the review of domestic literature, this article focuses on the research aspects of the talent training model of cooperative education in private universities, the community of interests of cooperative education, the current situation of cooperative education, and the long-term effectiveness of cooperative education, to illustrate that although national conditions are different, universities at home and abroad have adopted The starting point of cooperative education for cultivating talents is the same. However, the current research on cooperative education in China is not in-depth enough, and the research objects and perspectives are relatively single. Therefore, a richer and broader perspective is needed to increase research efforts at the theoretical and practical levels. The SWOT analysis of cooperative education in private universities is a good perspective;

Finally, the literature on SWOT analysis of cooperative education in private universities is introduced and reviewed, and through these data, the current development status of cooperative education in private universities in China, the internal advantages and disadvantages, and external opportunities and challenges are summarized as follows:

**Internal advantages:** First, the talent training system is guided by market demand, follows the laws of vocational education, caters to corporate employment needs, and meets the needs of social and economic development; second, it has a flexible and efficient operation and management mechanism that introduces corporate management factors Education management is conducive to cooperative education; third, school running characteristics are gradually taking shape and are increasingly recognized by candidates, parents, enterprises and society.

**Internal disadvantages:** First, the teaching methods cannot well meet market demand; second, some private vocational colleges are weak and unattractive; third, they lack relevant government policy and institutional support.

**External opportunities:** First, the country has successively issued guiding documents to vigorously develop private education and vocational education, creating a good environment for private universities; second, there are historical opportunities for social and economic transformation and upgrading, providing cooperative education for private universities and achieving leapfrog development. development provides possibilities.

**External challenges:** First, there is a lack of laws specifically targeting cooperative education; second, there is a crisis of trust due to the influence of traditional concepts; third, the role of industry associations is not obvious and support is insufficient.

Through literature review and analysis, on the basis of fully understanding the current situation of cooperative education in private universities in China, it finally provides a basis and theoretical basis for the SWOT analysis and strategic selection of cooperative education in Shandong Engineering Vocational and Technical University, and provides a basis for research on cooperative education in private universities in China. Provide reference points for reference.

### **Chapter 4 Findings and conclusions**

### 4.1 Findings

Through domestic and foreign literature research and SWOT analysis of cooperative education in private universities, the following findings were obtained and the research purpose was verified, so as to better bridge the gap, integrate advantages, and further enhance the core competitiveness of cooperative education in private universities.

# **4.1.1 SWOT** analysis of Shandong Engineering Vocational and Technical University cooperative education

### **4.1.1.1 Strengths**

# 1. The university has excellent educational conditions, accurate positioning and advanced concepts

The university is located in Jinan, the capital of Shandong Province, a famous historical and cultural city. It has two campuses, the main campus and the north campus, covering an area of more than 1,300 acres, a construction area of nearly 700,000 square meters, and nearly 23,000 students. It has intelligent manufacturing, artificial intelligence, construction engineering, transportation engineering, digital finance, industry and commerce, modern art, medical technology and other eleven teaching units, with 2.9645 million books and more than 1,100 faculty and staff. The university has invested heavily in strengthening the construction of practical teaching bases, with a total value of teaching and scientific research instruments and equipment of more than 244 million yuan, 131 public basic laboratories and professional laboratories, and three major training centers in mechanical engineering, transportation engineering, and civil engineering. There are 8 scientific research bases integrating teaching, scientific research and practical training.

Over the past 30 years of operation, the university has always adhered to the national education policy and implemented the fundamental task of cultivating people with moral integrity; it has adhered to the core of education quality, the purpose of serving development, and the orientation of promoting employment; it has adhered to the principle of "new engineering, integration, and vocational education". "The school-running positioning; adheres to the school-running philosophy of "ability-based, applying what is learned"; adheres to the integration of industry and education and the development path of cooperative education, integrates real corporate projects into education and teaching, focuses on the deep integration of industry and education, and collaborative education between schools and enterprises, and has successively We have established off-campus internship bases with more than 300

#### enterprises and

institutions, and cooperated with well-known Chinese enterprises such as Century Dingli, Huawei, Baidu, Tencent, China Hi-Tech, JD.com, LONGi Group, and Shandong Hi-Speed to build a number of characteristic industrial colleges, cultivating a large number of emerging talents. Professional industrial talents. It has embarked on a development path of vocational and technical universities that "highlights the characteristics of engineering and focuses on connotation construction".

# 2. The university majors are reasonably set up and closely connected with the industry

Based on the demand for talents in the pillar industries, strategic emerging industries and modern service industries of Shandong Province and Jinan City, the university timely adjusts and optimizes the professional structure, achieving a close connection between the professional chain and the regional industrial chain. Currently, it has opened 26 undergraduate majors and 49 junior college majors, covering 9 major categories such as equipment manufacturing, electronics and information, transportation, civil construction, resources environment and safety, finance and commerce, culture and art, tourism, medicine and health. Engineering majors account for more than 70%, forming four major advantageous professional groups: new infrastructure information technology, intelligent manufacturing technology application, new energy vehicle technology, and new building industrialization. It has established 2 provincial brand professional groups (construction professional group, intelligent manufacturing technology application professional group), 2 provincial high-level professional groups (new infrastructure information technology professional group, digital financial services professional group), provincial characteristics There are 4 majors (CNC technology, mechatronics technology, electronic information engineering technology, and construction engineering technology), and 2 engineering majors co-constructed by provincial enterprises and schools (mechatronics technology--3D printing technology application direction, intelligent manufacturing--robots Applied technology direction), more than 20 provincial-level quality courses, resource sharing courses, ideological and political demonstration courses, etc.

#### 3. Cooperative education has diverse models and a solid foundation

(1) The "university-Enterprise Co-Building Industrial College" modeled on introducing enterprises to the university and jointly building an incubation base (studio) effectively integrates and utilizes enterprise resources.

In recent years, Shandong Engineering Vocational and Technical University has jointly built an international e-commerce college with companies and industry

associations such as JD.com, Jinan Cross-border E-commerce Association, Shandong Online Business Education Technology Group, and further explored the university-enterprise cooperative education that integrates colleges and universities. human mode. Gradually formed a cooperative education model of a university within an enterprise and a university within an enterprise, truly moving the "classroom" into the enterprise, setting up the enterprise in the "classroom", and achieving a "win-win situation between the university and the enterprise" in the form of "university-enterprise dual operation".

(2) "university-enterprise jointly builds order classes" guided by market demand.

"Order-based training means that colleges and universities sign a talent training agreement and employment agreement according to the employer's requirements for talents, and jointly formulate a talent training plan. The enterprise participates in the entire training process and utilizes teachers, technical equipment and other resources from both schools and enterprises. Joint training is a talent training model in which students who pass the joint assessment by both parties upon graduation are directly hired by the agreed units." (Dang, 2015) Shandong Engineering Vocational and Technical University currently has two types of "direct orders" and "indirect orders" model. The ordering companies are involved in all aspects such as enrollment, course teaching, and student assessment. Through university-enterprise co-training, it not only greatly shortens the time cost for companies to train employees, but also increases students' enthusiasm for improving their skills.

(3) Cooperative education co-construction professional model based on the integration of industry and education.

Each major of the university is connected to at least one industry association, see Table 4.1. Many industry and enterprise associations have cooperated with the university. Each major has established a professional construction steering committee in which industry enterprises participate. schools and enterprises jointly explore talent training models and conduct professional evaluations, which greatly promotes the organic integration of university professional development and local industries.

Table 4.1 List of major undergraduate majors and industry associations.

Major undergraduate program	industry associations	
logistics management	Jinan Logistics Association	
electronic information engineering	Shandong information Industry Association	
hotel management	Jinan Tourism Association	
Film and television photography and production	Jinan City micro film Association	
Marketing and Sales	China Marketing Association	
Traffic and Transportation	Shandong Automobile Industry Association	
e-commerce	Jinan cross-border e-commerce Association	
international economics and trade	Shandong cross-border e-commerce alliance	
computer science and technology	Jinan Big Data Promotion Association	
Water supply and drainage science and engineering	Jinan Municipal Engineering Association Jinan water supply and water-saving drainage Association	
naval architecture and ocean engineering	Shandong shipbuilding industry association	
digital media art	Jinan animation entrepreneurship Industry Association	
civil engineering	Jinan construction Industry Association	
engineering supervision	Jinan building Energy Conservation Association	
building cost of projects	Jinan construction engineering Consulting Association Jinan Civil Engineering Society	
vehicle engineering	China Automobile Aftermarket Association	
preuniversity education	Huangdao District social Organization Federation Education and training Committee Jinan West Coast Preuniversity Education Alliance	
environment design	Jinan Cultural and Creative Industry Association Jinan interior decoration industry association Jinan Arts and Crafts Association	
Machine building And its		
automation	Jinan Machinery Industry Association	
mechatronic engineering		

#### 4. Established a complete cooperative education system

The university focuses on strengthening system construction and has established corresponding management mechanisms, operating mechanisms, assessment mechanisms and incentive mechanisms, which has beneficially promoted in-depth cooperation between schools and enterprises.

Through the promulgation of institutional documents such as the "Implementation Opinions of Shandong Engineering Vocational and Technical University on Promoting Cooperative Education", "Implementation Opinions of Shandong Engineering Vocational and Technical University on Open Education", "Professional Construction Plan" and other institutional documents, the college's five-year professional development structure layout was determined and a multi-form The multi-channel and multi-directional school running pattern closely meets the needs of regional economic society and industry enterprise development, and effectively promotes resource sharing and common development between schools and enterprises.

Through the introduction of the "School-Enterprise Scientific Research Achievements Transfer System", "The System for Outstanding Employees of Partner Enterprises to Come to the School for Free Further Education", and the "Management Measures for the School-Enterprise Co-construction of Internship Training Bases", it is stipulated that scientific research achievements will be transferred to partner enterprises first, making full use of the college With resource advantages, we carry out employee training and technical training for cooperative enterprises, proactively serve enterprises, and improve the quality of enterprise employees. It clarifies the responsibilities, rights and obligations of both schools and enterprises in the construction, use and management of the internship base, providing a favorable guarantee for achieving a win-win situation between schools and enterprises and promoting close cooperation.

By promulgating documents such as the "Expert Studio Management Measures", "Professional Teacher Enterprise Practical Training Management Measures", "Shandong Engineering Vocational and Technical University Part-time Teacher Management Measures" and other documents, we have attracted high-level technical talents and enterprise craftsmen to teach or engage in scientific research at the school. A sufficient number of teachers with a combination of professional and part-time skills and a reasonable structure have been formed, which has improved the quality of education and teaching.

Through the promulgation of documents such as the "Measures for the Management of In-School Subsidy Distribution" and the "Opinions on the Implementation of Review of Professional and Technical Positions", a distribution system adapted to cooperative education has been established, and various indicators

of social services and cooperative education have been included in the quantitative assignment of professional titles and performance appraisals. Allowing part-time teachers to participate in the evaluation and recruitment of teaching series professional and technical positions has mobilized the enthusiasm of full-time teachers in schools and part-time teachers in enterprises.

#### 4.1.1.2 Weaknesses

While cooperative education at Shandong Engineering Vocational and Technical University has achieved great results, due to various reasons, cooperative education still has problems such as imperfect measures, unclear cooperation goals, and shallow cooperation levels.

### 1. There is a problem of insufficient funds

The investor of Shandong Engineering Vocational and Technical University is Sanqing Real Estate Group. Due to the continued downturn in China's real estate market in recent years, the university's funding investment has been slightly insufficient. Due to funding constraints, the university's practical training base cannot meet the requirements of students' practical learning and operation, and cannot allow all students to undergo practical training. Only individual specialties or advantageous majors can achieve "learning and doing", and cannot attract active cooperation from enterprises. , which also leads to the situation that the level and depth of university cooperative education are not high enough. Therefore, insufficient funds are also a major threat to Shandong Engineering Vocational and Technical University, which will bring challenges to cooperative education.

#### 2. Management needs to be further standardized

As the source of private university students is the basis of survival, many policy formulations will consider issues such as stable enrollment, expansion of enrollment, and cost savings. Coupled with the fact that private universities generally have a relatively short history of establishment, their connotations need to be accumulated, and their management teams have less experience, etc., this will inevitably lead to a relatively chaotic internal management system of private universities. In order to expand revenue, Shandong Engineering Vocational and Technical University has exaggerated enrollment promotions, unreasonable fees, and inadequate service measures, etc., which has caused troubles to private education that was originally influenced by traditional concepts, and its social reputation has been affected. For private education that was originally struggling, For universities, this is just adding insult to injury. Cooperating enterprises will also worry about whether private universities can face various challenges during the cooperation process, whether they have the strength to cooperate, and whether the cooperation can be maintained and developed for a long time.

### 3. The teachers and management team are unstable and the overall quality is relatively low

While market-oriented management of universities also brings factors such as high work pressure, which poses challenges to teachers and management teams. First, the salary of university teachers has not been included in the national unified standards, and career development motivation such as professional title evaluation cannot be guaranteed. It is difficult to retain or attract outstanding teachers, resulting in a high brain drain rate in universities; second, the age of teachers is not nearly reasonable. , younger and less experienced; thirdly, the university is located in Zhangqiu County, Jinan City. Due to the limited number of enterprises in the area, it is extremely difficult to introduce dual-qualified teachers. Moreover, the team of part-time teachers is highly mobile, and the university has not perfected the management of part-time teachers. The assessment system often emphasizes appointment and neglects management.

### 4. Lack of in-depth cooperation between schools and enterprises

Although the cooperative education of Shandong Engineering Vocational and Technical University has achieved certain results, it is still unable to carry out stable and sustained cooperation, let alone in-depth cooperation. On the one hand, there are interest issues between the university and the enterprise. During the cooperation process, if either the university or the enterprise cannot gain benefits from it, it will be difficult to ensure long-term cooperation; on the other hand, if the university wants students to practice in off-campus training bases, this The decision-making power also lies in the hands of enterprises. At the same time, the form of cooperative education is mainly "off-campus training base", which is not diverse enough. There are differences in the operating mechanisms of universities and enterprises, and there is no real integration. There is no in-depth cooperation between schools and enterprises, which is not conducive to the improvement of the quality of talent training.

### 4.1.1.3 Opportunities

# 1. The country vigorously promotes vocational undergraduate education to provide the possibility for leap-forward development

In October 2019, with the approval of the Ministry of Education, Shandong Engineering Vocational and Technical University was promoted to one of the fifteen vocational undergraduate pilot universities in the country. The first batch of five undergraduate majors and 1,200 undergraduate plans were approved, paving the way for the rapid development of the university. cardiac. The university has successively cooperated with well-known Chinese and foreign companies such as Century Dingli, Huawei, Baidu, Tencent, China Hi-Tech, JD.com, Longi Group, Shandong Hi-Speed

and other well-known enterprises to build characteristic industrial colleges to cultivate talents in emerging industries. The initial employment rate of the university's graduates in the past three classes has reached over 92%. It has quickly moved from a "regional well-known private university" to the forefront of national private universities, achieving leapfrog development. At present, as a pilot unit of the Ministry of Education and Shandong Province for vocational undergraduate education, the university enjoys many national, provincial and municipal preferential policies, which provides huge space for the university to continue to promote the established strategy of "integration of industry and education, cooperative education".

On June 13, 2023, eight departments including the National Development and Reform Commission jointly issued the "Implementation Plan for the Integration of Industry and Education in Vocational Education (2023-2025)" (Development and Reform Society [2023] No. 699). Liu Ming, director of the Social Development Department of the National Development and Reform Commission, said at a special press conference: "The introduction of the implementation plan is an intrinsic requirement for continuing to deepen the integration of industry and education in vocational education, and is an overall solution to the 'two skins' problem of talent training and industrial development. This important measure is of great significance for improving the modern vocational education system and building a country with strong education and talents." "The main purpose is to promote the formation of a professional system that is closely connected with the industrial chain and innovation chain, so as to ensure that disciplines follow the industry and professional circles demand changes." and launched a policy combination of "finance + finance + land + credit". Obviously, the guidance on cooperative education in the "Plan" is more systematic, clear, standardized and authoritative, and can provide vocational universities with Cooperative education provides more effective institutional guarantees.

# 2. The industrial transformation and upgrading of Shandong Province and Jinan City have a more urgent need for technical and skilled talents

As the direct producers of products and direct providers of services, technical and skilled talents are one of the important factors that determine whether my country's economic structural transformation can proceed smoothly. Their quantity and quality directly affect the core competitiveness and independent innovation capabilities of enterprises. (Yang Fan, 2014). At present, the transformation and upgrading of Shandong's traditional industries, the cultivation of strategic emerging industries, the healthy development of advanced manufacturing, the development and expansion of modern service industries, and the development of cultural creativity and design industries all require a large number of innovative, high-skilled, high-quality A team of talented people to support it (Wang, 2016).

On May 7, 2023, eight departments of Shandong Province jointly issued the

"Notice on the Establishment of the Industry-Education Integration Community of the "Top Ten" Advantageous Industrial Clusters" (Lu Jiaozhihan [2023] No. 13), which clearly stated: We must closely focus on the talent shortage To meet the demand for technical positions, we will build a field engineer college and a modern industrial college. university and enterprises will jointly cultivate field engineers who have the spirit of craftsman, are skilled in operation, understand technology, know management, are good at collaboration, and can innovate. Support the development of "3+4" secondary vocational and undergraduate education and "3+2" higher vocational and undergraduate education in areas suitable for long-term education, and strengthen the coordinated linkage between upper and lower school periods. Facing shortage areas in the industry, expand the enrollment scale of applied undergraduate colleges and vocational undergraduate colleges in the vocational education college entrance examination, and support the joint cultivation of vocational education undergraduates by higher vocational colleges, vocational undergraduate colleges and applied undergraduate colleges with the right to grant master's degrees. Bachelor's degree, professional master's degree. Adapt to industrial changes and technological progress, organize the development of technical standards, product standards, process standards, professional teaching standards, curriculum standards, and teaching evaluation standards, develop professional core courses and practical ability projects, and develop and promote teaching equipment. Encourage enterprises to set up apprenticeship positions according to a certain proportion of the total number of positions and accept students for internship training.

Therefore, accelerating cooperative education in vocational universities, achieving market-oriented integration, and cultivating various technical and skilled talents that are in line with the development of emerging industries and the transformation and upgrading of the economic structure are the keys to promoting economic development. The talents cultivated by vocational education must not only have technical adaptability, but more importantly, have the ability to participate in the design and creation of the future technology and labor world in a socially, economically and environmentally responsible manner (Zhang, 2014).

#### **4.1.1.4** Threats

# 1. Bound by traditional social concepts, university development is under pressure

Shandong Province is the hometown of Confucius and Mencius. Especially in the field of education, public universities are more recognized by society. Although Shandong Engineering Vocational and Technical University has been promoted to an undergraduate university, due to its late establishment, its school-running qualifications and school-running capabilities have not yet received widespread trust and recognition from society. Even though Article 33 of Chapter 4 of the "Private Education Promotion Law" of the People's Republic of China clearly stipulates: "Educees in private universities enjoy the same benefits as those in public universities

at the same level in terms of further education, employment, social preferential treatment, and participation in advanced selections." Educators have equal rights." However, society's recognition of graduates from private universities is still not as good as that of public universities.

Low social recognition will trigger a series of chain reactions in Shandong Engineering Vocational and Technical University in terms of enrollment, school running and cooperative education. Enterprises have a habitual distrust and disapproval of universities' talent cultivation capabilities, and prefer public universities with strong financial resources in talent introduction and cooperation partner selection. The helpless social reality and inescapable social concepts have seriously affected the overall development of cooperative education in Shandong Engineering Vocational and Technical University, and also have a huge impact on the long-term effectiveness of cooperative education in universities.

## 2. Competition is intensifying, and cooperative education faces new challenges

Huge competitive pressure has made Shandong Engineering Vocational and Technical University treading on thin ice. On the one hand, due to the successive introduction of national policies to encourage private capital to enter the field of education, which has stimulated a large amount of private capital to enter the field of higher vocational education, the university has clearly felt the competition from brother universities and has blindly increased its investment. The hardware investment in infrastructure ignores the investment in soft power such as the quality of university education and teaching, which is not conducive to the improvement of the university's connotation and accumulation of heritage, and is not conducive to its long-term development; on the other hand, after the university upgrades to bachelor's degree, direct competitors More have been transformed into state-run vocational universities, while the government focuses on supporting and giving priority to the development of public universities. Relatively speaking, the government's support for private universities is very small, which to a certain extent has caused unfair competition between universities and state-run universities. . Since public colleges and universities have a lot of government investment and support, they will obtain better educational resources, including teachers and students, and a herd effect will emerge where the strong will become stronger. Cooperative education is a long-term cooperation process, and both parties need to carry out With the investment in manpower, financial resources, technology, and space, Shandong Engineering Vocational and Technical University will definitely lack overall competitiveness in the short term, and cooperative enterprises will definitely prefer to choose those strong state-run universities.

### 4.2 Conclusion

### 4.2.1 Matrix diagram of SWOT analysis

It is not difficult to see from Table 4.2 that Shandong Engineering Vocational and Technical University cooperative education has the following four types of development strategy options:

Table 4.2 Shandong Engineering Vocational and Technical University Cooperative Education SWOT Matrix Diagram

	Strengths	Weaknesses
	Excellent school conditions,	Insufficient capital investment.
		Management needs to be further
exterior circumstance analysis	reasonable and closely connected with the industry. Cooperative education has diverse models and a solid foundation.  The cooperative education	standardized The teaching staff is unstable and the overall quality is low. Lack of in-depth cooperation between schools and enterprises.
Internal factor analysis	system is sound and complete.	
opportunities	SO	WO
The state vigorously	Seize the historical	Seize the historical opportunity,
promotes vocational	opportunity,	overcome its own shortcomings,
undergraduate	give full play to its flexible	especially internal mechanisms
education.	and efficient management	and management systems,
Shandong Province and	advantages, carry out in-	support the cooperative
Jinan City have urgent	depth cooperative	education strategy, and avoid its
needs for industrial	education,	own shortcomings.
transformation and	innovate models and	
upgrading.	systems, and improve the	
	quality of talent training.	
Threats	ST	WT
Bound by traditional	We will do a good job in	Strict management, quality for
concepts, development	internal quality projects,	survival,make up for
is under pressure.	standardize management,	shortcomings, innovate the
Competition is	improve the quality of	cooperative education model,
intensifying, and	teaching management, and	and be brave in innovation and
cooperative education	improve parent and student	practice.
faces new challenges.	satisfaction.	

Strengths-Opportunities (SO) strategy is a strategy for a university to leverage its internal strengths while taking advantage of the external opportunity environment. Based on this strategic thinking, Shandong Engineering Vocational and Technical University should firmly grasp the good overall situation and good situation of social development, firmly grasp the opportunities of various policies and regulations issued by the state on the development of higher vocational education, and base on the loose and favorable conditions provided by the state. Excellent development opportunities, give full play to the flexibility of its own university-running mechanism, base on market demand, establish social shortage majors closely around social needs, boldly innovate talent training models, reform teaching models, improve social service capabilities, base on regional economic construction, and do something in the talent training system Article; In terms of the development of cooperative education, we should formulate a complete internal incentive mechanism, standardize the internal management system, promote cooperative education, build a loose and equal platform for attracting enterprises to enter the university, deepen the original cooperation, and carry out various activities around the needs of enterprises. Sexual cooperation.

Weaknesses-opportunities (WO) strategy is a strategy for universities to use external opportunities to avoid or make up for their own internal shortcomings, so that the university can change its shortcomings and seize opportunities. Shandong Engineering Vocational and Technical University, like other private vocational universities, also has many problems such as weak foundation, shortage of funds, incomplete teaching staff, imperfect management mechanism, poor quality of students, etc. There are still many deficiencies in management, teaching and other aspects. Therefore, external forces and resources are urgently needed to make up for the above shortcomings in enhancing students' employment competitiveness, and cooperative education is an effective way to solve the above problems. Therefore, Shandong Engineering Vocational and Technical University should firmly grasp the market orientation and actively learn and implement the national Regarding the guidelines and policies of vigorously developing private higher vocational education, we understand and grasp the spiritual essence, take advantage of the situation, actively carry out order training with enterprises, and jointly build a cooperative model of oncampus productive training bases. Students' practical abilities have been greatly enhanced. The university The implementation of this strategy has achieved positive results, as teachers' hands-on teaching abilities have been improved, while also making up for the university's inability to build internship sites due to insufficient funds.

Strengths-Threats (ST) strategy is for the university to use its own advantages to resist or reduce the impact of external adverse factors on itself. Private vocational colleges have been riddled with hardships since the first day of their birth, and have suffered constant setbacks during their 20-year development. To this day, they are still subject to discrimination and injustice. The development history of Shandong Engineering Vocational and Technical University, which lasted more than 30 years,

was full of difficulties. Faced with a development environment characterized by imperfect external laws and regulations and unstandardized management, faced with social doubts, peer pressure, and a sharply reduced student market, the college actively leveraged its flexible university-running mechanism, firmly grasped the pulse of the market, and kept up with Market development direction, actively implement the cooperative education model, run universitys in strict accordance with corresponding laws and regulations, standardize management, respect facts, and never engage in fraud to fool students, parents, and society. With its excellent teaching quality, standardized management, and high internship employment rate, it gives back to students, parents and society, and has won praise from the society, respect from peers, and recognition from enterprises.

Weaknesses-threats (WT) strategy is a defensive strategy designed to compensate for one's own shortcomings and avoid or resist threats from the external environment. Faced with the gradually decreasing student market, the increasingly severe employment pressure, and the increasingly harsh competitive environment, Shandong Engineering Vocational and Technical University is based on its own reality, faces its own problems and shortcomings, adheres to running the university in accordance with the law, strict management, and strives for survival by quality., seek development through quality, actively expand cooperative education channels, practice cooperative education models, and actively explore new ways and methods to enhance students' skills and improve students' employment quality under the new situation. Resolutely resist illegal activities, maintain the image of the industry, and aim to build a higher vocational college that satisfies the people. We must work hard, be brave in innovation, and dare to practice. Through the joint efforts of teachers and students of the university, we will use the achievements achieved in all the work of the college to Won unanimous praise from society.

#### 4.2.2 Choice of strategy

Through the above SWOT strategic analysis, Shandong Engineering Vocational and Technical University has completely and comprehensively analyzed its own strengths and weaknesses based on its own reality, and has become a confidant. Through detailed analysis of the opportunities and threats in the external environment, we have clarified the key factors that have an important impact on our own development, and achieved knowing the enemy. Based on this analysis, the school will comprehensively consider the college itself and various factors affecting its development, formulate and implement various strategic implementation measures, and achieve good results. Despite this, universities still have many shortcomings today, especially the disadvantages described when based on the SWTO model and will continue to be an important factor affecting and restricting their development in the long term. At the same time, various cooperative education models adopted by universities to improve the quality of running schools, enhance student employment, and improve teachers' teaching standards have achieved relatively good results in a

certain period of time. However, with the rapid development of social economy, the market economy is increasingly Maturity and the continuous progress of the times, for private universities with inherent deficiencies, there is still a lot that needs to be summarized and improved in the cooperative education strategy.

In summary, through comparative analysis of each strategy, the school's current strategic choices are summarized. At present, the university is in a very favorable external environment where the country attaches great importance to and vigorously develops cooperative education. The opportunities are very rare; at the same time, the university itself and cooperative education have many advantages. Therefore, this article believes that: SO-expansion development strategy is the most suitable development strategy for Shandong Engineering Vocational and Technical University.

Shandong Engineering Vocational and Technical University should seize the historical opportunity, give full play to its own advantages and make up for its shortcomings. Under the university's established strategy of vigorously developing cooperative education, we will actively promote cooperative education with the help of government guidance and cooperative guidance from industry associations. The various functional departments of the university should allocate assets, stabilize existing cooperative education achievements, improve the internal management and operation mechanism of the university, create a platform to attract cooperation between enterprises and universities, formulate a loose and equal cooperative education system, and carry out diversified and diversified development. Cooperative education, while boldly innovating to build an in-depth and sustainable cooperative education competition strategy.

### **Chapter 5 Recommendation**

Cooperative education is an important force in improving the core competitiveness of private universities and an important way to promote talent reserves for social and economic development. Whether they are enterprises or private universities, they must actively seize opportunities, achieve strong alliances, share resources, reform cooperation methods, strive to establish long-term cooperation mechanisms, and strive to achieve win-win results. Based on the university's SWOT analysis results and drawing on typical cooperation models from China and abroad, this article makes the following suggestions for Shandong Engineering Vocational and Technical University:

# 5.1 The university should establish a school-enterprise integrated management model with enterprises to effectively enhance the core competitiveness of universities

The Ministry of Education pointed out in 2017 that "it is necessary to continue to deepen the transformation and development reform of universities, comprehensively promote the construction projects of applied universities, and build a cooperative education platform for applied universities on this basis to improve the overall education and teaching level of universities." (Meng, 2018)

Currently, private universities are facing unprecedented opportunities. The rapid development of regional economy and the establishment of an innovative society require more application-oriented talents who are adapted to modern science, technology and production methods. This is inseparable from the support of local private universities. Cooperative education can integrate the respective advantages of universities and enterprises and "learn from each other's strengths and weaknesses" in terms of resources and advantages of both schools and enterprises. This feature has also become an inevitable choice for the transformation and development of private universities, the establishment of applied technology universities, and the cultivation of applied talents. To solve the various problems existing in the school-enterprise cooperation model and seek a new model of school-enterprise cooperation, it is necessary to transform external policy pressure into its own internal demand motivation and realize the transformation of the cooperative education model from the current government-led to market-oriented. This is the current school-enterprise cooperation model. Cooperation is the key to opening a new chapter. By improving and formulating relevant policies and regulations, we will clarify the responsibilities and obligations of private universities, enterprises and governments in cooperative education, and use the means of market competition and regulation to transform cooperative education into the intrinsic needs of both schools and enterprises, and promote cooperative education from both internal and external sides. healthy growth.

Even with various guarantee mechanisms in place, if the university's cooperative education model wants to remain invincible in the face of the current complex external competitive environment, it must reform and innovate on the basis of summarizing the successful experience of the existing model and try to Build a deep-level cooperation model that integrates schools and enterprises. Based on small and medium-sized enterprises, try to establish a market-oriented, diversified and in-depth cooperation model of private vocational education groups.

# 5.2 The university should establish and stabilize a high-level teaching staff, which is a key factor in their own development

Through research, it is found that most private universities currently do not pay enough attention to teacher training. Factors such as the lack of high-level teachers and the weak scientific research capabilities of private universities have also become an important factor restricting the long-term effectiveness of cooperative education in private universities. Although Shandong Engineering Vocational and Technical University has adopted a series of measures to introduce talents, it still needs to strengthen the training and improvement of its own teachers. In the next step, universities should be innovative and enterprising with enterprises in co-building faculty, talent training programs, professional courses, a new culture of schoolenterprise integration, and student classrooms, so as to create high-level private vocational education. Undergraduate university and work hard.

Due to limited time, manpower, and material resources, and also limited to my own level and height of vision, although I conducted a large number of relevant theoretical literature, and conducted detailed research and on-site inspections of the survey objects, I was still unable to find cooperation with Shandong Engineering Vocational and Technical University. There may still be incompleteness or deficiencies in educational issues and analysis of the causes of problems, and the selection of research angles may not necessarily be scientific, especially the ideas for solving problems are not yet complete. But focusing on the analysis and research of cooperative education models, especially the cooperative education models of private universities, will be my main research direction in the future.

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