

# The Connotation, Problems, and Practice of the Integration and Development of Vocational Education and Private Economy

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## Abstract

The integration and development of vocational education and private economy is an important focus and direction for the new model of vocational education. This article first clarifies the connotation and three characteristics of vocational education and private economy: deep integration, interactive development, and coordinated innovation. Then, it discusses the insufficient motivation for private enterprises to participate in vocational education, slow professional updates in vocational colleges, and imperfect linkage mechanism between vocational education and private economy. The difficulties and problems in the integration of vocational education and private economy development projects were analyzed, and finally, suggestions were put forward from the aspects of strengthening top-level design, promoting the cultivation of technical and skilled talents, strengthening the construction of dual teacher training bases, and deepening the integration of industry and education in vocational colleges, in order to provide reference for promoting the integration of vocational education and private economy development.

## Keywords

Vocational education; Private economy, Integrated development.

## 1. Introduction

Vocational education is an important component of the modern national education system, and the private economy is an important pillar for promoting economic development. Promoting the integration and development of vocational education and the private economy is not only conducive to enhancing the overall promotion and implementation of vocational education adaptation reform practice, but also further improving the quality and level of development of Zhejiang's private economy, enhancing its vitality and competitiveness, and promoting sustainable economic development. According to calculations, the added value of Zhejiang's private economy accounted for 67% of the province's GDP in 2021. The added value of industrial private enterprises above designated size increased by 13.3% compared to the previous year, much faster than the growth rate of GDP. In 2021, the registered market of private enterprises in Zhejiang accounted for 92.5% of the total number of enterprises; The tax revenue generated by private economy accounts for 73.4% of the province's tax revenue; The total export value of private economy accounts for 60.3% of the total export value of the province; Private investment accounted for 58.8% of the total fixed assets investment. The private economy plays an important role in various fields of the national economy in Zhejiang Province. In 2021, the "Opinions of the Zhejiang Provincial People's Government of the Ministry of Education on Promoting the Integration and Development of Vocational Education and Private Economy to Assist in the Construction of a Vital Warm Taiwan "(referred to as the "Opinions ") was officially issued, which precisely pointed out the need to improve the speed of establishing a diversified social education and government coordinated management situation,

and use mechanism innovation to promote the further integration and development of private economy and vocational education. Drawing on the practical experience of existing vocational colleges, as one of the main stakeholders in the integration and development of vocational education and private economy, vocational colleges should not only strengthen top-level design, coordinate the overall situation, but also pay attention to strategic methods and focus on strengthening institutional construction, clarifying the definition of rights and responsibilities, and deepening the reform of teaching management mechanisms. They should work together with enterprises to create a long-term mechanism for the integration and development of vocational education and private economy, Boost the high-quality development of vocational education and the integration of private economy.

## 2. Literature Review

Scholars have also conducted research on the integration and development of vocational education and private economy from different methods and perspectives. Throughout the current literature, it can be mainly summarized into five aspects. Firstly, research on the integration and development of vocational education and private economy. Liu (2006) believes that the structural characteristics of vocational education have improved the overall level of the local economy and promoted the optimization of the private economic structure in the district. The regional characteristics of private economy directly affect the structure and type of vocational education, and affect the development of vocational education. Timpane and McNeill (1991) detailed the characteristics of the integrated development model of vocational education and private economy in their own research report, and analyzed the areas that need to be improved for further cooperation between vocational education and private economy. Secondly, research is conducted from the perspective of the driving mechanism for the integration and development of vocational education and private economy. As Xu (2012) proposed, the internal factors of private enterprises participating in vocational education mainly stem from the essence of enterprises pursuing maximum benefits. Huo (2009) found through a questionnaire survey of 96 private companies in Hebei that the motivation for companies to participate in vocational education is first to seek improvement in talent literacy; Afterwards, there will be short-term benefits, knowledge integration, and improvement of technological resources, seeking cultural integration based on talent cultivation; Finally, the recruitment plan was finalized. Thomas Bailey (2000) proposed that the focus of a company's participation in vocational education includes three motivations: collective, individual, and charitable. Thirdly, research has been conducted on the existing problems and causes of the integration and development of vocational education and private economy. From the perspective of institutional analysis, Di and Ding (2006) believe that the lack of a favorable environment and mechanisms to safeguard the interests of enterprises is the main constraint factor for the integration and development of vocational education and private economy. He (2012) conducted an empirical survey on 102 private enterprises, indicating that in the process of integrating private enterprises with vocational education, the motivation for private companies to participate is complex and the level of participation is not deep; More inclined towards low-cost forms of participation; Participating behavior can be influenced by various factors outside and within the company. Steven G. Klein (1996), through interviews with private enterprise managers, believes that existing laws and regulations are also one of the main factors restricting the participation of the private economy in vocational education. Fourthly, research on strategies for the integration and development of private economy participation in vocational education. Liu (2006) proposed that current policy formulation should follow the principle of "categorizing and guiding according to the situation", and adopt differentiated regulatory measures. Yu et al. (2007) proposed that the integrated development of private economy and vocational education requires governments at different levels to

demonstrate their leading functions in evaluation and funding, and to leverage economic leverage and policy measures to mobilize companies' initiative in participating in vocational education. Marc S. Miller and Robert Fleegler (2000) proposed and compared supportive policy measures, using intermediaries, especially industry chambers of commerce and associations, to attract private economy to participate in vocational education is a more efficient measure.

In summary, the research on the participation of private economy in vocational education by domestic and foreign scholars has laid a good foundation for this topic. However, existing research also has the following problems: firstly, when domestic scholars explore the issue of private economy participation in vocational education, there is a lack of in-depth analysis and argumentation on the current situation and problems of private economy participation in vocational education at the theoretical and logical level, and empirical summaries are mostly used, which have not yet fully revealed the real difficulties and root causes of private economy participation in vocational education; Secondly, the mandatory and operability of countermeasures and suggestions are not strong, and some suggestions cannot be implemented on the ground. Previous studies have proposed strategies such as policy support, legislative support, financial support, and mechanism construction, which lack the effectiveness of solving practical problems; thirdly, there is a lack of research on the mixed ownership of vocational education from the perspective of private economic entities. Only a few scholars have analyzed the willingness of private enterprises to participate in vocational education through interview and questionnaire surveys, but there is a lack of systematic research on the logical path, mechanism and system of private economy participation in vocational education; Fourthly, foreign public-private partnerships in vocational education research have yielded rich results, but can only provide experience and reference. Therefore, this article conducts research on the participation of private economy in vocational education, which has both theoretical basis and practical needs for research.

### **3. The Connotation of the Integration and Development of Vocational Education and Private Economy**

The integration and development of vocational education and private economy is different from the traditional meaning of "school enterprise cooperation", with a wider scope of radiation, not limited to the standards of individual enterprises, but emphasizing the social nature of new technology diffusion under the current industrial revolution background, the degree of integration between education and teaching with national innovation systems, and the standards and requirements of social members (industries, industries, groups), involving and participating in subjects far more complex and diverse than school enterprise cooperation. Based on the analysis of the characteristics of the integration of private economy and vocational education, the author proposes that the integration of private economy and vocational education specifically involves the participation and continuous investment of vocational education units, companies, industries, and governments at different levels, the efficient integration of resources at different levels, the integration of industry education collaborative services, innovation, and education into the overall process of teaching and education reform, and the establishment of multi-party sharing, management The situation of creation and promotion is ultimately achieved, and the overall process is further integrated and permeated development, promoting the "five chain integration" of technology chain, talent chain, vocational education chain, industry chain and innovation chain, and then promoting the overall integration of industry demand side and talent cultivation supply side elements, and overall improving the quality of high-tech and skilled talent cultivation.

The core of the integrated development of vocational education and private economy is the mutual benefit and win-win situation between vocational colleges and private enterprises, and

the coordinated development of vocational education and private economy. The integrated development of vocational education and private economy should have three basic characteristics.

### **3.1. Deep integration**

The integration and development of vocational education and private economy is different from the one-way connection and unilateral participation between specific schools and enterprises in the past. The integration here is not only the integration between teaching and production, schools and private companies, but also the integration group created with the overall vocational education and private economy as the core. All vocational education methods need to be included in this scope. For example, continuing education and vocational training of employees can be regarded as the educational subject in the integrated development of private economy and vocational education. At the level of private economic subject, all activities that obtain Means of production through labor production may participate in the integrated development of private economy and vocational education.

### **3.2. Interactive development**

The structure of vocational education and the characteristics of the private economy determine the unique connection between the two parties, which is mutual development, promotion, and dependence. Moreover, this interaction and connection is more direct than any other conventional education. Therefore, vocational education is the best platform to promote the further development of private companies, and the continuous development of the private economy will have a direct impact on the category and structure of higher vocational education. The long-term healthy development of the private economy requires vocational education to provide high-quality and sufficient talents, and the results of vocational education need to be in line with the needs of industrial talents. Therefore, there is a close relationship and mutual compensation between the two parties, with equal and critical status, without any distinction between primary and secondary. This balanced interactive relationship determines the development direction and path of industry education integration.

### **3.3. Coordinated innovation**

The key to the integrated development of private economy and vocational education is to create a community of coordinated development of technology, industry, and education. Utilize stronger R&D transformation to achieve "integration" with industrial development; By doing excellent innovation and new entrepreneurship, we can achieve "integration" with talent cultivation, and by expanding technology alliances, we can achieve "integration" with various organizations, thereby providing strong support services for the development of the social economy.

## **4. The Difficulties and Problems in The Integration and Development of Vocational Education and Private Economy**

### **4.1. Insufficient motivation for private enterprises to participate in vocational education**

At present, most school enterprise collaborations involve the school actively seeking collaboration with the company by finding relationships and connections. On one hand, the school maximizes the use and exploration of different social resources to create training bases and obtain internship opportunities, but on the other hand, the company is not actively participating in school enterprise cooperation and does not take it seriously. Some private enterprises feel that such cooperation cannot benefit themselves. The profit seeking nature of private enterprises determines that all choices made by companies are made after weighing

benefits and costs. In the current projects of private companies participating in vocational education, they have invested a certain amount of equipment and cash in the form of donations, and arranged a certain number of enterprise personnel as part-time teachers. However, often in the end, students choose private companies as their preferred choice due to their lower scale and reputation compared to state-owned enterprises and central enterprises. At the same time, the vocational education market is a Market failure market, which directly leads to the problem of "high investment and low income" (or short-term low income) for private enterprises to participate in vocational education cooperation. Enterprises seeking to maximize benefits will not participate too much in the talent training system of vocational colleges under the existing production conditions. Therefore, the problem of market failure has led to a decrease in the enthusiasm of private enterprises to participate in vocational education talent cultivation, and most enterprises do not have the internal motivation and willingness to upgrade their industries. Their existing production methods do not have sufficient demand for technical and skilled talents, so they are unwilling to participate in the vocational education talent cultivation system.

#### **4.2. Slow professional updates in vocational colleges**

At present, the social economy and industrial structure are undergoing transformation and upgrading, but vocational colleges and schools have not kept up with the pace of change in terms of talent cultivation standards, quality structure, and corresponding support for the curriculum system, teaching methods, and teacher literacy during the professional adjustment process. The traditional profession is reflected in two aspects: on the one hand, the profession itself is too traditional, and on the other hand, using a less traditional professional name to cover up a actually very traditional profession. The professional layout of vocational colleges has not kept up with the pace of regional industrial adjustment in a timely manner.

#### **4.3. Imperfect linkage mechanism between vocational education and private economy, industry, academia, and research**

The disciplinary resources are highly Statistical dispersion, and the system and mechanism of multidisciplinary joint research have not been straightened out, which has not formed the agglomeration effect; The linkage mechanism between industry, academia, and research is not perfect, and the total amount of horizontal scientific and technological funding needs to be further improved. The conversion rate of scientific and technological achievements is not high enough; The cooperation between school, campus, campus industry, and school enterprise needs to be further expanded, and alumni resources have not yet been fully developed and utilized. Although the school has achieved many historic breakthroughs in national and provincial level projects and awards, the project leaders and achievement owners are relatively concentrated, and the number of national level projects and high-level awards is still insufficient compared to top domestic vocational colleges.

#### **4.4. Insufficient depth of integration development projects between vocational education and private economy**

Currently, private companies' investment in vocational education is still at a relatively shallow level, mostly creating collaborative relationships between partial levels and schools, without long-term, systematic, and holistic collaboration. Firstly, private companies have not started from their own development perspective and have not formulated long-term plans for participating in school enterprise cooperation based on actual conditions, nor have they established targeted school enterprise cooperation projects related to the company's product research and technology development. On the other hand, the current industry education integration projects in vocational colleges have diverse external entities, especially private enterprises, who lack enthusiasm and initiative in participating in the entire process of talent

cultivation, such as restructuring the professional curriculum system and developing curriculum resources. Most of them still remain at the level of jointly building practical training bases and R&D bases. The collaborative relationship created by the school and enterprise is not based on a community of shared destiny, but rather a point-to-point and scattered collaborative relationship. The stability and foundation of collaboration are weak. That is to say, the school and enterprise can sign cooperation agreements at any time according to their needs, and can also terminate relevant agreements at any time, without incurring significant contractual costs.

## **5. Practical Exploration on the Integration and Development of Vocational Education and Private Economy**

### **5.1. Strengthen top-level design and supporting system construction**

Draft and prepare school development planning documents. Vocational colleges have entered a period of high-quality connotative development. Vocational colleges should clarify a new pattern of high-quality development of schools, led by high-quality party building, breakthrough in mixed ownership, undergraduate vocational education construction, improvement of student source quality, construction of a dual teacher team, transformation of scientific and technological achievements, output of vocational education standards as the goal, and vocational education brain as the carrier. Optimize the direction of performance evaluation indicators for the integration and development of vocational education and private economy, emphasize the direction of substantive cooperation with private enterprises and industries, and further clarify specific requirements for cooperation targets, content, and effectiveness. Encourage secondary colleges to cooperate with industry leading enterprises, leading enterprises, and high-level industry associations (associations), especially increase the encouragement for secondary colleges to introduce social resources such as private enterprises to participate in school operations, refine the criteria for determining the types and values of social investment, and provide specific directions for secondary colleges to carry out vocational education and private economy integration development projects. We have revised and improved the funding management agreement for the integration of vocational education and private economy development project, emphasizing the approval and final review of vocational education and private economy integration development projects, and further improving the substantive effectiveness requirements for vocational education and private economy integration development projects. Innovative implementation methods for mixed ownership. By studying the spirit of higher-level documents and the underlying difficulties of mixed ownership, we will innovate the mechanism for promoting mixed ownership work, and collaborate to improve the new mechanism for the integration and development of vocational education and private economy through governance collaboration, subject collaboration, relationship coordination, and risk control.

### **5.2. Promote the cultivation of technical and skilled talents**

Cooperation between schools and enterprises to promote the construction of practical teaching. By refining the achievements of base construction, reorganizing the relevant venues for virtual simulation teaching, and organizing secondary colleges to uniformly transfer the original virtual simulation training projects to the virtual simulation training base. Form a virtual simulation teaching venue for site co construction and resource sharing. Establish a virtual imitation course research and development center, fully reflecting the educational philosophy of "learning, training, research, and application". Actively connect with regional pillar industries and quickly and accurately layout. Adhering to the educational philosophy of "developing at the same frequency as the country, connecting with regional industries, interacting with the private economy, win-win with industry enterprises, and aligning with

international top tier", actively connecting with the regional industrial chain, further sorting and adjusting the logic of group formation, improving the professional (group) development plan, further tapping into the inherent potential of the profession, and "strengthening majors within the group, and doing majors outside the group".

### **5.3. Strengthen the construction of dual teacher training bases**

Select a batch of high-quality "double qualified" teacher training bases at the school level from the existing "double qualified" teacher training bases, improve the mechanism of joint training with industry enterprises for teachers, master the new measures, processes, skills and knowledge applied in specific or production work for the positions taught, strengthen further understanding of the company's industrial development and production, combine with the company's specific practical achievements, and promote professional construction, Improve classroom teaching. Show the key role of local leading companies in cultivating high-level "double qualified" teachers. Vocational colleges can stipulate through documents that full-time teachers must meet a certain amount of practice time in enterprises each year and be included in the annual assessment of departments (secondary colleges).

### **5.4. Enhancing the Integration of Vocational Education and Private Economy in the Development of Social Service Capacity Construction**

Vocational colleges should enhance their ability to integrate vocational education with the development of private economy and provide social services, which is to improve the quality of talent cultivation, technological services, vocational training, and other aspects of strength. Promote the construction of practical teaching for the cultivation of technical and skilled talents. By refining the achievements of base construction, reorganizing the relevant venues for virtual simulation teaching, and organizing secondary colleges to uniformly transfer the original virtual simulation training projects to the virtual simulation training base. Form a virtual simulation teaching venue for site co construction and resource sharing. Establish a virtual imitation course research and development center, fully reflecting the educational philosophy of "learning, training, research, and application". Actively connect with regional pillar industries and quickly and accurately layout. Adhering to the educational philosophy of "developing at the same frequency as the country, connecting with regional industries, interacting with private economy, win-win with industry enterprises, and aligning with international top tier", actively connecting with the regional industrial chain, further sorting and adjusting the logic of group formation, improving professional (group) development plans, further tapping into the inherent potential of the profession, and "strengthening the profession within the group, doing the profession outside the group" to expand and strengthen the vocational training brand. In close combination with the needs of regional economic and social development, we will fully leverage the advantages of vocational colleges in professional technology and talent gathering, and provide various training programs for private enterprise employees, highly skilled talents, and other groups. A training pattern has been formed with a focus on training projects derived from existing assessment bases, vocational skills training projects certified by the Human Resources and Social Security Bureau as the expansion direction, and certification, exams, and various short-term customized training projects commissioned by government agencies, enterprises, institutions, industry associations, etc. as auxiliary..

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