

# Research on the Development Path of Vocational Education Internationalization under the Background of Hainan Free Trade Port Construction

Rui Hu\*

Hainan Vocational University of Science and Technology, Haikou 571126, Hainan Province, China

\*Corresponding author: Rui Hu, huuruii@163.com

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**Abstract:** In recent years, the establishment and continuous promotion of the Hainan Free Trade Port has made its strategic position increasingly prominent. In order to cope with the opportunities and challenges brought by the free trade port, the demand for high-quality practitioners in Hainan Free Trade Port is imminent. As a highly open free trade port in the world, Singapore has promoted the rapid improvement of national strength by promoting the international development of vocational education, which provides important enlightenment for the research on the development path of the internationalization of vocational education in Hainan Free Trade Port. This study uses case analysis and comparative analysis to analyze the successful experience of the internationalization of vocational education in Singapore, clarify the current situation and shortcomings of Hainan Free Trade Port in the internationalization of vocational education, and suggest feasible development paths from four aspects: institutional environment, teaching system, teachers, and cooperation mode.

**Keywords:** Hainan; Free trade port; Vocational education; Internationalization

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## 1. Introduction

In recent years, with the establishment and continuous promotion of the free trade port strategy, Hainan's strategic position has become increasingly prominent, and its influence on the national economic pattern has gradually expanded. Currently, China is facing a great change unseen in a century. As the vanguard and main force of development in the new era, Hainan has an urgent need for high-quality employees<sup>[1]</sup>.

As Hainan and Singapore are comparable in geographical location, similar in industrial structure and the internationalization needs of vocational education, Hainan can actively learn from the internationalization experience of higher vocational education in Singapore. The purpose of this study is to deeply study the excellent

cases of the internationalization of vocational education in Singapore, compare and discuss the current situation and shortcomings of the internationalization of vocational education in Hainan Free Trade Port, and try to provide reference and inspiration for the development path of vocational education in Hainan Free Trade Port <sup>[2]</sup>.

## **2. Literature review**

In 2018, the 30th-anniversary conference of the Hainan Special Economic Zone proposed to fully support the construction of a pilot free trade zone on the whole island of Hainan. Since then, the construction of Hainan Free Trade Port has become the focus of scholars at home and abroad. Scholars pointed out that the construction of Hainan Free Trade Port requires a large number of talents in various aspects, and it is necessary to attract domestic famous universities to set up branches in Hainan, develop applied higher vocational schools focusing on an export-oriented economy, and increase the cultivation of local industrial talents <sup>[1,3,4]</sup>.

Vocational education is a form of education that provides advice, preparation, and skill training for individuals to engage in socially required and personally recognized occupations. Internationalization of vocational education refers to the state and process of international flow or interaction of material, energy, and information of vocational education. With the deepening of global economic integration, in order to meet the growing demand for skilled talents, the internationalization of vocational education is becoming more and more important to China's social and economic development. The construction of the free trade port cannot be without the support of talent, and Hainan faces prominent problems such as fewer native residents, fewer colleges and universities, and fewer returning talents. Therefore, it is urgent to take the introduction of talent as the focus of the construction of the free trade port <sup>[5]</sup>. Improving the mode, strategy, and quality of vocational education and training is crucial to the establishment of the Hainan Free Trade Port <sup>[3]</sup>.

## **3. Research methods**

This paper used case analysis and comparative analysis to learn from the successful experience of the internationalization of vocational education in Singapore, so as to deeply explore the strategy and practice of talent training in Hainan Free Trade Port. First, this study used case analysis to sort out the specific practices and effects of Singapore in the institutional environment, teaching system, teachers, and cooperation mode of the internationalization of vocational education. Then, through comparative analysis, it compared the differences between Hainan Free Trade Port and Singapore in talent training, identified the shortcomings of Hainan Free Trade Port in various aspects, and explored the development path of internationalization of vocational education under the background of Hainan Free Trade Port construction.

## **4. Cases of internationalization of vocational education in Singapore**

### **4.1. The institutional environment of internationalization**

At the beginning of the founding of Singapore in 1965, the Singapore government put forward the goal of "building the country through education" and "running education to revitalize the state." In the 20th century, Singapore took "enabling students to have a global vision of going international and facing the world" as one of its four educational goals. In the 21st century, Singapore issued the "Ideal Educational Outcomes" program, which put forward a new educational goal, requiring all students receiving post-secondary education to carry out "cross-cultural cooperation." In order to better achieve the goal, the government has also relaxed the policy

to implement a “dual registration system” for all foreign universities and other types of schools running schools in Singapore, lowering the entry threshold, and increasing the internationalization ratio of vocational colleges <sup>[6]</sup>.

## **4.2. An international education system**

Singapore’s teaching system is “interchange,” which is divided into four levels: primary school, junior high school, college, and university. After the completion of college study, students can enter the university in a variety of ways, undergraduate university education is not a single general education and vocational education, but belongs to the mixed type of general vocational education, students can choose their own level of education according to their own learning. On the basis of the multi-level teaching system, Singapore’s vocational colleges have made international improvements to their teaching methods. For example, the Teaching Factory, by integrating the actual factory environment into the teaching environment, makes students feel like they are in various departments of a large enterprise and receive various business skills training, thereby stimulating their interest and ability to learn <sup>[7]</sup>.

## **4.3. International teaching staff**

In order to meet the needs of international students, Singapore attaches great importance to the development of international teachers. The number of foreign teachers in Singapore’s polytechnics has exceeded 10% of the total teaching staff; Temasek Polytechnic’s 29 specialties are all taught by experienced teachers from various countries. In addition, Singapore actively introduces advanced and cutting-edge international knowledge, supports teachers to pay attention to and participate in professional exhibitions and training, and encourages in-service teachers to study abroad to broaden their international horizons.

## **4.4. International mode of cooperation**

In terms of school-school cooperation, Singapore is actively working with developed countries to build international campuses. Nanyang Polytechnic of Singapore has established three international cooperation schools in cooperation with Germany, France, and Japan, respectively, to create a competitive international atmosphere. In terms of school-enterprise cooperation, Singapore has actively developed good relations with international enterprises. Nanyang Polytechnic has signed school-enterprise cooperation agreements with famous enterprises such as FESTO in Germany, Mitsubishi in Japan, and IBM in the United States, which has broadened students’ international vision and promoted their common development and progress with enterprises <sup>[8]</sup>.

# **5. Current situation and deficiency of international development of vocational education in Hainan Free Trade Port**

## **5.1. Institutional environment**

In 2023, Hainan Province issued the Interim Regulations on Overseas Higher Education Institutions Running Schools in Hainan Free Trade Port, clarifying the access conditions for overseas higher education institutions and granting them an exclusive preferential system for free trade ports. In order to enhance the international diversification of vocational education, Hainan has actively introduced Hainan Bielefeld University of Applied Sciences and set up five other cooperative educational institutions, such as Hainan University and Arizona State University Joint School of International Tourism, etc. Although the colleges and universities in Hainan strive to promote the process of internationalization and actively set up cooperative colleges and programs, achieving a breakthrough of “zero” in Hainan, there is still a big gap between the quantity and quality of Hainan and Singapore, and the pace of internationalization is still far behind developed countries and regions <sup>[9]</sup>.

## 5.2. Teaching system

Overall, there are 25 universities and colleges in Hainan, of which 16 are junior colleges, accounting for 64%. However, there is only one vocational college with a single level. If junior college students want to continue their studies, they can enter the undergraduate school after the completion of the course through the entrance examination, and obtain the bachelor's degree certificate after graduation. Compared with Singapore's "flyover" teaching system, Hainan's vocational college students have a single channel for further study, which does not conform to the development trend of the international era<sup>[10]</sup>. From the perspective of professional opening, in 2023, Hainan has a total of 14 higher vocational colleges, offering 55 professional groups, and the total number of majors offered by each school is 502, an increase of 6.81% over last year. Most of these majors are concentrated in the tourism industry, lacking open international majors. From the perspective of teaching methods, most of Hainan's higher vocational colleges still implement traditional teaching methods, only focus on strengthening the talent training of a certain professional knowledge structure, and do not introduce international teaching mode into the school, which cannot meet the increasing demand for international teaching in the free trade port<sup>[11]</sup>.

## 5.3. Teaching staff

By 2023, there will be 5,319 full-time teachers in Hainan's higher vocational colleges, among whom 1,438 have senior professional titles, accounting for 27.04%, and 2,555 are "double-qualified" teachers, accounting for 48.04%. However, compared with Singapore, Hainan still lacks measures to attract talent, and the high-end international education talents it can attract are limited, and there is still a large room for improvement in the proportion of international teachers. In addition, Hainan vocational colleges and universities have organized international cooperation training courses and exchange and study in foreign countries for teachers, and employ foreign experts and teachers to study in Hainan. However, most colleges and universities have not set up positive encouragement policies, which makes teachers fail to absorb the knowledge of international lectures or exchanges for various reasons, and their internationalization ability and technology have not been significantly improved<sup>[12]</sup>.

## 5.4. Cooperation mode

In recent years, Hainan Free Trade Port has gradually begun to expand its mode of international cooperation. In terms of school-university cooperation, the undergraduate tourism management education program jointly organized by Hainan Tropical Ocean University and University of Applied Technology, Krems International Management Center, Austria, has introduced high-quality education resources such as talent training programs from Austrian University of Applied Technology, but has not yet established an international campus cooperation model similar to Singapore. Compared with Singapore, there is still a big gap in the quality, scale, and influence of cooperation. In terms of school-enterprise cooperation, Hainan Vocational and Technical College of Economy and Trade has set up two overseas training centers in Pakistan and Indonesia, with a total of 139 people and 508 class hours of training for countries along the "Belt and Road." However, compared with the comprehensive school-enterprise cooperation in Singapore, Hainan's cooperation with international enterprises lacks depth<sup>[13]</sup>.

# 6. The path of international development of vocational education under the background of Hainan Free Trade Port

## 6.1. Building an international institutional environment

Hainan still has great room for improvement in the diversity of institutional support, the process of

internationalization, and the employment competitiveness of vocational education graduates. The Hainan provincial government needs to thoroughly implement the 20 spirit of the CPC National Congress, implement the Opinions on Deepening the Reform of the Construction of the Modern Vocational Education System issued by the General Offices of the CPC Central Committee and The State Council, formulate diversified education internationalization plans, lower the entry threshold of overseas colleges and universities, and orderly and effectively promote the construction and reform of the modern vocational education system. In addition, from the perspective of education level and employment competitiveness, the government needs to increase financial investment to support the professional construction of vocational colleges and improve the employment rate and recognition of graduates <sup>[14]</sup>.

## **6.2. Deepening the reform of international teaching**

In terms of education system construction, colleges and universities should actively promote the construction of a complete international vocational education system, and appropriately lower the threshold between different academic levels, so that students can choose different levels of education according to their personal interests and abilities. In terms of the reform of teaching methods, colleges and universities should expand their professional offerings, not only to meet the needs of local industries, but also to pay attention to open international majors. Secondly, more international teaching models, such as “teaching factories” and problem-driven teaching methods, should be introduced to cultivate students’ critical thinking and problem-solving skills to meet the growing international needs of the free trade port <sup>[15]</sup>.

## **6.3. Improving the level of international teachers**

From the perspective of teacher demand, Hainan should establish a more positive incentive mechanism to encourage teachers to participate in international cooperation and exchange programs, such as setting up special funds to support teachers to study abroad and participate in international conferences and seminars. At the same time, an open and inclusive academic atmosphere should be created within colleges and universities to promote knowledge sharing and experience exchange among teachers <sup>[16]</sup>. From the perspective of teacher supply, Hainan needs to further optimize the talent introduction policy to enhance the attractiveness of foreign teachers and high-end education talents, for example, providing more competitive salaries, career development opportunities, and life support, while strengthening the international training of local teachers to enhance their international vision and teaching ability.

## **6.4. Enriching international cooperation models**

Compared with Singapore, Hainan has much room for improvement in the breadth, depth, and influence of international cooperation. In terms of school-university cooperation, Hainan vocational colleges need to establish international campus cooperation models with more developed countries to jointly build a high-level international education platform. In terms of school-enterprise cooperation, colleges and universities should strengthen cooperation with international enterprises, expand cooperation areas and deepen cooperation content, achieve deep integration of school and enterprise, and promote the close combination of teaching and practice. Finally, colleges and universities can actively cooperate with the “going global” strategy of enterprises, learn successful cases such as “Luban Workshop” and Confucius Institute, explore the field of overseas education and foreign aid education, and show China’s responsibility as a major country <sup>[16]</sup>.

## Disclosure statement

The author declares no conflict of interest.

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