

# Path dependence and breach of Vocational Education internationalization in The Belt and Road Initiative background

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**Abstract.** " The Belt and Road Initiative " strategy requires occupation education to further improve its international level and international competitiveness and cultivate more international talents. Since the reform and opening up, China's vocational education has formed a unique system, but there are multiple imbalances and path locking in the process of internationalization. Based on the path dependence theory, this paper analyzes its root causes: the retention of scale effect, the restriction of coordination effect, the restriction of adaptive expectation, the restriction of increasing returns, the obstruction of vested interests, the bondage of traditional ideas and so on. In order to realize the path transcendence of the internationalization of vocational education, we should constantly improve the internationalization support system, innovate the internationalization development mode and improve the internationalization co construction mechanism. The Belt and Road Initiative and one occupation, will be promoted.

**Keywords:** The Belt and Road Initiative; Internationalization of vocational education; Path dependence.

## 1. Introduction

With the in-depth implementation of the vision and action of promoting the co construction of the Silk Road Economic Belt and the 21st century Maritime Silk Road, the concept has been transformed into action, and the vision has been transformed into reality, which provides a broad development space for the internationalization of vocational education and urgently needs to provide strong talent and intellectual support for vocational education. At present, "there are still some problems in China's vocational education, such as imperfect system construction, imperfect system standards, and supporting policies conducive to the growth of technical and skilled talents to be improved" [1]. Occupation occupation is The Belt and Road Initiative occupation development is a dynamic evolution process. Based on the path dependence theory, this paper analyzes the multiple imbalance and path locking factors of the internationalization of Vocational Education under the "one belt and one road", and explores the long-term path of internationalization of China's vocational education, and achieves the path surpassing. Promote vocational colleges to "go global" and shoulder their due political, economic and cultural missions.

## 2. Path dependence: There are multiple imbalances of the internationalization of vocational education in The Belt and Road Initiative background

Path dependence refers to the "inertia" of technological evolution or institutional change in human society, which is similar to physics. This theory is proved to be an effective method to study problems in the social field. Under The Belt and Road Initiative exists multiple imbalance and path locking in the internationalization of occupation education.

Path dependent mechanism: Choice - self reinforcement - locking

In the 1970s, the phenomenon of "stagflation" appeared in the process of world economic development. The new institutional economics school represented by American economist Douglas North incorporated the "system" into the theoretical analysis framework of "cost-benefit", and believed that there was a periodic law of "equilibrium imbalance rebalancing" between institutional demand and supply in a certain social environment, The path dependence theory is established: after the initial "accidental event" selects a path in a variety of paths, the increasing return causes the path

self-strengthening mechanism to rely on this path. "The mechanism of initial condition triggering state selection can be characterized by non-ergodic Markov process. The number and characteristics of the initial state and absorption state of the system determine the equilibrium result" [2]. The continuous operation of the path produces scale effect, coordination effect, learning effect and expected effect, forms an increasing return, continuously increases the marginal income of the path, continuously improves the path support system and continuously strengthens itself. When this strengthening exceeds the "critical capacity", it can be solidified, that is, "locking". The "locking" is the result of multiple equilibria. It is difficult to "unlock" without the impact of structural factors outside the system. This theory explains "why the initial system choice will have a significant impact on the current system operation and future system construction", and provides countermeasures to solve "stagflation".

## **2.2 Path locking effect: Suboptimal or inefficient state**

The path is selected by the initial "accidental event", so it is not necessarily optimal. Path dependency has a gradual "non separability" "Inverse" does not necessarily develop along a benign track of getting better and better. Once selected, it is difficult to switch to another path (reversal requires a very high cost). It may enter a suboptimal state to obtain continuous optimization; it may be locked in a low cost Efficiency, even inefficiency, has become an obstacle to development. Therefore, the initial path selection must be comprehensive, objective and careful. In the early stage of operation, if any problem is found, it shall be adjusted in time to minimize the loss and avoid being "locked" in an inefficient or ineffective state for a long time. The Belt and Road Initiative, occupation education internationalization is based on the internationalization of China's occupation education, and there is path dependence. From "bringing in" to "going out" of internationalization, vocational education must break through the harmful path dependence and break through the path lock.

As a rule system with certain stability, the system can reduce uncertainty and restrict the subject's excessive pursuit of welfare or utility maximization [3]. The improvement and renewal of the system can survive in response to the demands of historical development and reform. Although China has become the largest international market and importer of education service trade, and has formed a vocational education system based on the needs of domestic economic and social construction, in the new era, "we should constantly adapt education to the development requirements of the party and the country with a higher historical position, a broader international vision and a deeper strategic vision". The Belt and Road Initiative, is the multiple imbalance of occupation education. First, under the policy of "giving full play to the decisive role of the market in the allocation of resources", the great environment of occupation education has changed greatly. Internationalization needs to innovate and develop occupation education, and it is unbalanced in time series. Two, The Belt and Road Initiative, the "international" and "Vocational Talents" training objectives of higher occupation standards need to be balanced between supply and demand. Occupation The Belt and Road Initiative, three occupation education interaction, should further enhance the degree of coupling between the two, there is imbalance between supporting system and vocational education internationalization. Therefore, we need to explore the Countermeasures of multiple imbalances.

## **3. Reason for locking: The Belt and Road Initiative, the path dependence of occupation education internationalization**

The occupation occupation internationalization under The Belt and Road Initiative is not only a major measure to implement the national comprehensive opening up strategy, but also the expectation of "going out" of our enterprises, and also an inevitable choice for vocational colleges to participate in international competition and survival. Based on the path dependence theory, this paper analyzes the multiple imbalance and path locking factors of the internationalization of Vocational Education: the retention of scale effect, the restriction of adaptive expectation, the restriction of coordination

effect, the restriction of increasing returns, the restriction of traditional ideas and the obstruction of vested interests.

### **3.1 Scale effect retention**

Since the reform and opening up, China's vocational education has developed vigorously, "has built the world's largest vocational education system, with more than 13300 vocational colleges, nearly 30 million students and nearly 10 million annual graduates, and has trained more than 200 million employees" [4]. It has accumulated a large bonus of vocational education system, such as mature management system, operation mechanism and school running mode, and the economies of scale are becoming more and more obvious. The main body of vocational education has formed a path dependence on the existing system, which increases the resistance of international reform. Meanwhile, The Belt and Road Initiative construction needs more international people, international transformation of large scale occupation colleges, infrastructure construction, management system revision, and operation mechanism improvement. There is no historical experience and reference for reference. We can only go along and try to find a way to cross the river, increasing the cost of International time and slowing down the reform process.

### **3.2 Coordination effect containment**

As a node of the whole social system network, vocational education system will be affected by the embeddedness of macro institutional environment. With the support of national macro policies, the development of Vocational Education in China benefits from social progress and the continuous enhancement of comprehensive national strength, forming a good coupling effect with the macro system it depends on. At the same time, local governments at all levels have formulated a series of favorable supporting measures to support the development of Regional Vocational Education in combination with the needs of regional economic development and interaction with vocational colleges. The Belt and Road Initiative, occupation education internationalization should be integrated with international rules. These formal rules and informal rules are stacked up and form a perplexing system network system, which has promoted the occupation education foundation, but also increased the difficulty of solving the imbalance of internationalization process.

### **3.3 Adaptive expectation constraints**

After a long-term operation of China's vocational education system, people have gradually adapted, psychological identity, natural acceptance, generated good expectations and reached a balance. The improvement of adaptive expectation magnifies the advantages, enhances the authority of the system, masks the defects and eliminates the panic caused by uncertainty. When good expectations become a consensus, behavioral inertia will be formed, and the result will further strengthen expectations. "The Belt and Road Initiative" occupation education "go out" innovative development, facing higher market uncertainty risk, how to integrate, how to cooperate, how to share risks and how to allocate benefits, such as industry, enterprise and school, how to allocate the benefits and so on, and the contradictions are perplexing and risk hidden. The instinct of "risk aversion" restricts the internationalization of vocational colleges.

### **3.4 Restriction of increasing returns**

Learning effect is a process in which actors accept and gradually improve the system by learning and mastering the system rules [5]. It is conducive to promoting the popularization of system application, reducing implementation costs and increasing profit opportunities. The vocational education system with Chinese characteristics has become a social consensus and has been widely studied, popularized and applied by vocational colleges. Under the effects of scale effect, learning effect, coordination effect and adaptive expectation, it will produce increasing returns and bring good social and economic benefits, so it will produce a certain international innovation inertia. The Belt and Road Initiative, occupation education "going out" requires understanding the social, political,

economic, legal and cultural aspects of the countries along the border, formulating new operational mechanisms, management systems, changing inappropriate habits and habits. Both material level and institutional level, it is necessary to invest huge cost in creating, which will certainly weaken the driving force of internationalization of occupation education.

#### **4. Breakthrough unlock: "The Belt and Road Initiative" occupation education internationalization development path surpass**

Under The Belt and Road Initiative occupation education internationalization is a dynamic evolution process. In order to break through and unlock the internationalization construction and realize the path transcendence, we must further emancipate the mind, take the market as the guidance, take the problem as the starting point, and get rid of the adverse factors affecting internationalization. Deepen reform and "promising government" guidance, and improve the internationalization support system of vocational education; Opening up competition and promoting "effective market" to innovate the international development model of vocational colleges; Cross border integration, "multi-agent" coordination, and improve the mechanism of internationalization and joint construction of vocational education. Promote vocational colleges to actively participate in international competition and continuously improve their international level and international competitiveness.

##### **4.1 Improve the internationalization support system of Vocational Education**

The internationalization of vocational education is a process from shallow to deep, from low to high, from point and surface to adapt and improve gradually. The Belt and Road Initiative, occupation education, from one way "Introduction" to "going out" service enterprises, involves many aspects of the macro political aspects, such as politics, economy, society, and human environment at home and abroad. It involves human resources, finance, taxation, and foreign affairs. It is difficult to achieve without the structural support from outside occupation institutions. In the new era, reform is the core driving force of social development. With the support of the "promising government", we will deepen the reform of vocational education and constantly improve the internationalization support system: public opinion guidance, firm faith, policy support and positive incentives, build channels, strengthen communication, set up platforms for demonstration and guidance, and comprehensively promote the internationalization of vocational education, The Belt and Road Initiative and one occupation, will be brought into full play.

First, public opinion guidance and firm faith. Deeply understand the "whole church" spirit, vigorously publicize the social value of vocational education, break the shackles of traditional ideas and improve the social status of vocational education. Earnestly implement the objectives of vision and action, firmly adhere to the direction of international reform, establish good development expectations, improve the internationalization adaptability of Vocational Colleges and expand their international influence and attraction.

Second, policy support and positive incentives. Improve the financial, fiscal, tax, education and other support policies for the internationalization of vocational education, formulate the incentive mechanism and welfare compensation mechanism for the internationalization of vocational colleges, eliminate the resistance from vested interest groups, and stimulate the innovation vitality of the internationalization of vocational education subjects.

Third, build channels and strengthen communication. Improve the foreign contact and communication mechanism, negotiation and consultation mechanism, domestic coordination and linkage mechanism and information sharing mechanism for the internationalization of vocational education, so as to form the international coordination effect. Human resources, foreign affairs departments, overseas Chinese enterprises and other participants are included in the international interest community of vocational education. Promote bilateral or multilateral dialogues and exchanges at home and abroad, reach development consensus and achieve win-win cooperation.

Fourth, set up a platform for demonstration and guidance. Coordinate national foreign aid projects in a unified manner, build an international demonstration platform for vocational education and establish learning benchmarks, such as "Luban workshop" and "Confucius Institute", relying on major national construction projects, so as to promote the effect of international learning. Make good use of the National Social Science Fund and the key scientific research fund of the Ministry of education, build an international scientific research platform for vocational education, and promote the research team to lead or participate in the formulation of international vocational education standards, so as to lay a theoretical foundation for internationalization and provide reference experience.

#### **4.2 Innovating the international development model of Vocational Education**

In the new era, China has formed a complete, standardized and efficient science, technology and culture trading market, human resources market and capital market. The Belt and Road Initiative occupation, is to open up to the outside world and give full play to the role of "effective market" in optimizing allocation of resources for vocational education, such as people, money and goods, and promote occupation colleges to focus on the "one belt and one way" strategy, docking the "world-class" standards, and plan a scientific, clear and unique international strategy. Connect with market demand, constantly optimize international talent training programs, specialty settings and teaching staff, establish an international path of vocational colleges that is more open, competitive and more in line with market demand, and improve the international running ability of vocational colleges. Training international talents with The Belt and Road Initiative with international cultural intercourse and familiar with international practice and rules of industry, and solving the contradiction between supply and demand of talents under the "one belt and one road".

First, optimize the governance system and eliminate development resistance. Set up special international institutions to promote the internationalization of the governance structure of Vocational Colleges and eliminate the resistance to international reform. Actively carry out two-way foreign exchanges, expand the global vision of teachers and students, and improve the popularity of vocational colleges.

Second, build foreign-related situations and improve learning effect. Expand the opening of education, benchmark international professional standards, select international general teaching materials, and employ international excellent teachers to provide students with good and cross-cultural learning scenarios and improve the international learning effect of vocational colleges.

Third, flexible specialty setting to expand the scale effect. The Belt and Road Initiative and The Belt and Road Initiative, should be set up to expand the source of students and attract more foreign students to study in China. We can also entrust training according to China's investment projects to gradually form the scale effect of internationalization of vocational colleges.

Fourth, innovate talent training programs to improve students' adaptability. According to the actual one along the "The Belt and Road Initiative", we innovate the training mode of internationalized talents which is different from different nationalities and regions, so that students can match the actual demand of international industry and improve their international adaptability. Encourage students to practice overseas with enterprise projects, and talents to follow the projects, so as to improve the pertinence and effectiveness of international running of vocational colleges.

Fifth, improve the teaching system and give play to the coordination effect. Actively integrate with the international mutual recognition system, optimize the international teaching quality evaluation and guarantee system of vocational colleges, and the market transformation mechanism of teaching achievements, so as to promote the smooth operation of education and teaching and form the coordination effect of internationalization of vocational colleges.

Sixth, focus on the construction of teachers and promote increasing returns. Teachers are the core competitiveness of vocational education. High-level teachers can produce good social and economic benefits. Set up an international teaching team of Vocational Colleges with cross-cultural communication ability, so that teachers can stay and use them well, and teachers can "go out" to learn, experience and grow

#### **4.3 We will improve the international co construction mechanism of vocational education**

In the new era, vocational education has a significant cross-border nature [6]. To promote the internationalization of vocational education, we should give full play to the cross-border advantages. Under the joint action of macro policy environment and micro stakeholders, deepen the reform of supporting systems and rules, integrate the construction forces at home and abroad such as government, industry, industry, enterprises, schools, families and students, establish an international interest community of vocational education, and integrate the school running ideas and interest demands of participants into the scope of internationalization of vocational education, The Belt and Road Initiative occupation strategy, is to improve the internationalization of vocational education. Give full play to the competitive advantages of national secondary vocational demonstration (key) schools, national demonstration (backbone) higher vocational colleges and applied technology universities, "multi-body" coordination, cross-border research, cross-border cooperation, cross-border promotion and cross-border joint construction, enrich the global effective supply of China's vocational education and create an international advantageous brand.

First, cross-border research to reduce internationalization risks. The Belt and Road Initiative occupation, occupation experts and related participants gathered from various disciplines to get rid of the past misunderstanding of Vocational Education in vocational colleges, and to jump out of the simple empirical reasoning mode, and carry out the empirical research of multi dimension and multi-level "one belt and one road" + occupation education internationalization, and reduce the internationalization risk of occupation colleges.

Second, cross border cooperation and consolidate the foundation of internationalization. The Belt and Road Initiative, is to win the cooperation and win win. This is the main theme of the times. It further promotes the integration of occupation education and school enterprise cooperation at home and abroad, and actively participates in the International Vocational Education Alliance Organization. Build an international community of destiny for vocational education and promote the seamless connection between the international development of Vocational Colleges and the needs of enterprises to "go global".

Third, promote cross-border and forge the power of internationalization. Under the "The Belt and Road Initiative", we should not only play a role in occupation colleges, but also emphasize the unique role of enterprises in educational product R & D and marketing services, and create an international driving force. With the overseas influence of well-known enterprise brands, seize development opportunities, promote high-quality vocational education products and services to the world, and establish international influence and voice.

Fourth, build cross-border cooperation and create international brands. The Belt and Road Initiative occupation, is to diversify its main body, and give full play to its advantages in the internationalization of vocational education, such as collectivization, occupation and shareholding, and vigorously promote the development of high level cooperation with world-class resources, and encourage vocational schools with mature conditions to set up foreign branches to attract domestic and foreign forces who are interested in building the "one belt and one way" project. Be the "leading goose" of China's vocational education on the world stage.

## **5. Conclusion**

The Belt and Road Initiative has provided unprecedented opportunities for vocational education. Occupation colleges should deepen their reform and guide the government in a more cost-effective manner. They must adhere to the principle of "open competition", "effective market" micro integration, cross boundary integration and multi subject cohesion, break through the path and achieve the path beyond. one with international communication and international influence will be built.

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