

A Study on the Institutional Compatibility of Education Liberalization in Free Trade Ports: An Analysis of the Governance Effectiveness of the “Large Sharing + Small College” Model in Lingshui, Hainan

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Abstract: Against the backdrop of profound adjustments in the global education governance landscape and the accelerated advancement of China’s free trade port construction, institutional innovation in education openness has become a core issue for regional development. The “large-scale sharing + small-scale institutions” model explored by the Hainan Lingshui International Education Innovation Pilot Zone breaks down administrative barriers and resource segmentation in cross-border education, establishing an education governance system with free trade port characteristics. This paper, based on the institutional adaptability theoretical framework, systematically analyzes the internal logic of this model in terms of the flow of educational elements, the restructuring of governance structures, and the realization of functions, revealing its governance effectiveness and practical value in the education opening-up of free trade ports. The study finds that the “large-scale sharing + small colleges” model achieves dynamic adaptability with the free trade port’s “4+12” industrial system through institutional flexibility design. Its governance effectiveness manifests in three dimensions: improved resource allocation efficiency, deepened cross-border education collaboration, and optimized precision in talent supply. This provides theoretical references and practical pathways for institutional innovation in education openness within China’s free trade ports.

Keywords: free trade port; education openness; institutional adaptability; “large-scale sharing + small colleges”; governance effectiveness

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1. Introduction

Globally, educational internationalization is transitioning from “scale expansion” to “quality enhancement,” and innovative governance models for cross-border education have become a key driver for countries competing in the international education arena. As a “pilot zone” for China’s deepening reform and opening-up, the Hainan Free Trade Port bears the mission of exploring a development path that combines “Chinese characteristics with world-class standards” through educational openness. Since 2020, the Lingshui International Education Innovation Pilot Zone (hereinafter referred to as the “Lingshui Pilot Zone”) has adopted a core model of “large-scale sharing plus small colleges,” introducing 22 domestic and international universities to engage in cooperative education. This has formed a new governance structure

characterized by “cross-campus course selection, credit recognition, and resource sharing,” providing a vivid example of education openness for the Free Trade Port ^[1]. However, there is an inherent tension between the special policy environment of the free trade port and the complexity of educational openness: on the one hand, the free trade port needs to break through the constraints of the traditional education management system to meet the demand for the free flow of cross-border educational elements; on the other hand, the public and ideological attributes of the education sector require the institutional design to maintain necessary normativity and controllability. Under these circumstances, how can the “large-scale sharing + small-scale colleges” model achieve compatibility with the institutional environment of the free trade port? What are the mechanisms and boundary conditions for the generation of its governance effectiveness? The answers to these questions hold significant theoretical and practical implications for improving China’s institutional framework for education openness in free trade ports.

2. The Institutional Compatibility Logic of Education Liberalization in Free Trade Ports

Existing research primarily focuses on three dimensions: First, studies on the institutional logic of education liberalization in free trade ports emphasize the driving role of policy benefits in promoting education internationalization. For example, scholars have pointed out that Hainan Free Trade Port’s “zero tariffs and low tax rates” policies provide institutional conveniences for foreign universities to establish campuses there; Second, comparative studies on cross-border education governance models, focusing on cases such as the EU’s “Bologna Process” and Singapore’s “Global Campus,” reveal the core value of resource sharing in enhancing the level of education internationalization; Third, practical descriptions of the “large-scale sharing + small-scale colleges” model, which primarily analyze its role in interdisciplinary collaboration and talent cultivation from the perspective of educational outcomes, but theoretical explanations of its institutional adaptability and governance effectiveness remain insufficient ^[2]. Building on existing research, this paper introduces the theory of institutional adaptability, systematically analyzes the “large-scale sharing + small colleges” model within the institutional environment of a free trade port, and focuses on exploring the underlying mechanisms of its governance effectiveness, addressing the gap between theoretical depth and practical analysis in existing research.

2.1. Core Connotation of Institutional Compatibility

Institutional compatibility refers to the degree of coordination between specific institutional arrangements and external environments and internal structures. Its core lies in achieving a dynamic balance between institutional functions and environmental demands through flexible design. In the context of free trade ports, the institutional compatibility of educational openness encompasses three dimensions: First, compatibility with the objectives of the free trade port’s industrial system, meaning that educational supply must precisely align with regional economic development needs; Second, alignment with the mechanisms of cross-border education, meaning that institutional design must conform to the intrinsic logic of educational internationalization; Third, alignment with the boundaries of national educational sovereignty, meaning that security and autonomy in the educational sector must be maintained during the opening-up process ^[3].

2.2. Institutional Demand Characteristics of Educational Opening-Up in Free Trade Ports

The “domestic yet overseas” special regulatory model of free trade ports imposes differentiated demands on educational opening-up institutions: First, the demand for “highly free” flow of elements requires breaking through traditional approval barriers for Sino-foreign cooperative education to achieve cross-border flow of faculty, curricula, and research resources; Second, the demand for “diverse and collaborative” governance structures requires the construction of a governance network involving government, universities, and market entities; Third, the demand for “bottom-line thinking” in risk prevention requires safeguarding against risks such as ideological infiltration and declining educational quality while expanding openness.

2.3. Institutional Adaptability Framework of the “Large Sharing + Small College” Model

The core of the “Large Sharing + Small College” model in the Lingshui Pilot Zone is to achieve institutional adaptability through a two-tier structure of “sharing platforms” and “college autonomy.” “Large Sharing” refers to the integration of public resources at the pilot zone level, including shared laboratories, cross-campus course platforms, and public service systems, to address the issue of scattered resources in cross-border education. “Small Colleges” refers to universities retaining their autonomy in education, with flexibility in areas such as curriculum design and talent cultivation programs. This structural design not only meets the Free Trade Port’s demand for efficient flow of educational resources but also preserves universities’ autonomy through the principle of “sharing without centralized management,” forming an institutional adaptation pathway that combines centralization and decentralization ^[4].

3. Institutional Structure and Operational Mechanisms of the “Large-Scale Sharing + Small Colleges” Model in Lingshui, Hainan

3.1. Institutional Structure — The Construction of a Two-Tier Governance System

The institutional structure of the “large-scale sharing + small colleges” model features a three-tiered framework of “macro-level coordination — meso-level coordination — micro-level autonomy.” At the macro level, the Hainan Provincial Government and the Ministry of Education jointly established the Experimental Zone Management Committee, responsible for formulating development plans and policy standards. For example, the “Overall Plan for the Lingshui International Education Innovation Experimental Zone” clearly stipulates breakthrough policies such as “allowing universities to independently determine admission standards and establish interdisciplinary programs”; At the meso level, a Shared Resource Management Center has been established to coordinate the use of public facilities such as laboratories and libraries, and to build an information platform for “course selection and credit recognition.” By 2024, this platform had accumulated over 1,200 course resources, covering all disciplines of the participating universities ^[5]; At the micro level, each “small college” develops its own talent cultivation plan based on its unique educational characteristics. For example, the “Marine Engineering College” established through a collaboration between Coventry University in the UK and Hainan Tropical Ocean University combines the strengths of both institutions to offer interdisciplinary programs such as “Shipbuilding and Marine Engineering” and “Marine Environmental Protection.” This structural design breaks through the traditional governance dilemma of universities operating in isolation, reduces institutional transaction costs through a “shared platform,” and responds to diverse educational needs with the flexibility of “small colleges,” thereby achieving the dual advantages of “concentrating resources to tackle major tasks” and “stimulating vitality to promote innovation.”

3.2. Operational Mechanism — Collaborative Governance Based on the “Five Mutuals and One Shared” Principle

The Lingshui Pilot Zone ensures the efficient operation of the “large-scale sharing + small colleges” model through the “Five Mutuals and One Shared” mechanism (mutual learning between east and west, integration of disciplines, interdisciplinary communication between arts and sciences, free course selection, mutual recognition of credits, and shared management). In terms of resource sharing mechanisms, a cost-sharing and benefit-sharing rule of “who invests, who benefits” has been established. For example, in the “Marine Electronics Laboratory” jointly established by the University of Electronic Science and Technology of China and the University of Glasgow in the UK, equipment investments are shared by both parties in a 6:4 ratio, and research outcomes are distributed based on contribution levels; In terms of the quality assurance mechanism, international accreditation bodies (such as the UK’s Quality Assurance Agency for Higher Education, QAA) are involved in evaluations, and a three-tier quality monitoring system is established, comprising “university self-assessment—shared center spot checks—supervision by the management committee”; In terms of the risk prevention mechanism, courses involving ideology are subject to a “filing system,” and overseas textbooks are managed through a “expert review + dynamic adjustment” approach to ensure the safety of educational openness. The core of the

“Five Mutuals and One Common” mechanism is to break down cross-border education collaboration barriers through rule innovation. For example, in terms of credit recognition, the pilot zone has developed the “International Course Credit Conversion Guidelines,” converting credit systems from different countries into “pilot zone standard credits,” addressing the “credit conversion challenges” faced by universities in Europe and the United States. By 2024, over 800 students have utilized this mechanism to take courses across institutions^[5].

3.3. Institutional Flexibility—The Ability to Adapt to Changes in Free Trade Port Policies

The dynamic adjustment of free trade port policies requires that the education opening-up system possess corresponding flexibility. The “large-scale sharing + small-scale colleges” model achieves institutional flexibility through three design features: first, an approval model combining a “negative list” with a “commitment system,” which allows for “approval after implementation” for cooperative education initiatives not listed on the negative list, reducing the approval cycle from six months to 30 working days; second, an “annual assessment + dynamic adjustment” entry and exit mechanism, which initiates an exit procedure for universities that fail to meet educational standards for two consecutive years. In 2023, one overseas university was suspended from admissions due to insufficient enrollment; third, an “policy experimentation + experience consolidation” iteration mechanism, which elevates pilot experiences such as “course recognition” and “cross-border faculty mobility” into institutional norms. For example, the 2024 “Hainan Free Trade Port Cross-Border Education Talent Management Measures” extended the faculty recognition standards of the Lingshui Pilot Zone to the entire province. This flexible design enables the “large sharing + small college” model to respond quickly to changes in free trade port policies. For example, in the context of the 2023 free trade port “digital economy” industrial upgrade, the pilot zone completed the approval and enrollment of new majors such as “digital trade” and “artificial intelligence” in just three months, demonstrating the dynamic alignment of institutional norms with industrial needs.

4. Evaluation of the Governance Efficiency of the “Large-Scale Sharing + Small Colleges” Model

4.1. Resource Allocation Efficiency

The “large-scale sharing + small colleges” model breaks down administrative barriers and spatial divisions in cross-border educational resources, achieving the intensive utilization of educational elements. In terms of hardware resources, shared facilities such as laboratories and libraries have transcended the boundaries of single-institution use, forming a “one-time investment, multi-party benefit” sharing framework. For example, the laboratory jointly established by the University of Electronic Science and Technology of China and the University of Glasgow serves the teaching and research needs of both universities while also providing equipment support to other participating universities, transforming high-end research resources from “exclusive” to “socialized,” effectively avoiding duplicate construction and resource idleness. In terms of human resources, channels for cross-border faculty mobility have been expanded. Overseas university faculty can teach at multiple institutions through shared platforms, while domestic faculty can participate in joint research and teaching at overseas partner institutions. This liberates high-quality faculty from “inter-institutional barriers,” establishing a “one person, multiple roles, shared across multiple institutions” mobility mechanism. This configuration not only enriches the structure of faculty supply but also promotes the cross-cultural dissemination of teaching concepts and methods. In terms of course resources, the cross-institutional course selection mechanism breaks down the closed nature of traditional major settings, allowing students to independently choose advantageous courses from different institutions based on their interests and development needs. This expands course resources from “intra-institutional circulation” to “regional sharing,” driving the dissemination and expansion of high-quality teaching content.

4.2. Collaborative Governance Efficiency

This model provides systematic support for cross-border educational cooperation through the institutionalized design of

the “five mutuals and one common” mechanism, driving the transformation of cooperation from “shallow integration” to “deep integration.” In terms of cooperation breadth, the geographical coverage of participating institutions has expanded from initially focusing on European and American universities to gradually including institutions from ASEAN and other “Belt and Road” countries, forming a diversified international education network. This network layout not only enriches the diversity of educational offerings but also builds bridges for regional educational cooperation. In terms of cooperation depth, collaboration has expanded from single-course partnerships to encompass the entire value chain, including joint research and talent cultivation. For example, the University of Alberta in Canada is collaborating with local universities in Hainan on joint research in marine science and technology, while Coventry University in the UK is participating in the development of talent cultivation programs for tourism management, deepening cooperation from the “teaching level” to the “research and industrial service level.” In terms of cooperation mechanisms, the “joint management” principle has established a governance network involving governments, universities, and industries. Through regular consultations and interest coordination, conflicts in cooperation are resolved, transforming cross-border education from “spontaneous cooperation” to “institutionalized collaboration,” thereby enhancing the stability and sustainability of cooperation.

4.3. Talent Supply Efficiency

The “large sharing + small college” model achieves precise alignment between talent cultivation and regional development through dynamic coordination between disciplinary layout and industrial demand. In terms of disciplinary setup, the model focuses on the “4+12” key industrial system of the free trade port, targeting critical areas such as deep-sea technology, southern seed breeding, and tourism management. By establishing specialized colleges through cross-institutional collaboration and offering interdisciplinary programs, it addresses the limitations of traditional single-discipline education. For example, the Lingshui Pilot Zone centers on tourism management while expanding into fields like digital economy and marine technology, forming a disciplinary cluster highly aligned with the free trade port’s pillar industries. In terms of capability development, the “course selection and credit recognition” mechanism promotes the integration of multidisciplinary knowledge, enabling students to master both professional core skills and cross-disciplinary comprehensive competencies. This has cultivated a group of composite talents with both international vision and local practical capabilities. These talents break through disciplinary barriers in their knowledge structure and are more inclined to serve the key industries of the free trade port in their career choices. In terms of industry-education integration, universities and enterprises collaborate through joint laboratory construction and project research to closely align talent cultivation with industrial practice. Students can participate in real projects during their studies and quickly adapt to job requirements upon graduation, providing a stable talent pool for free trade port development.

5. Conclusion

The practice of the “large-scale sharing + small-scale colleges” model in Lingshui, Hainan, demonstrates that the institutional adaptability of education openness in the free trade port must be achieved through “structural flexibility, mechanism coordination, and functional precision.” This model addresses the challenge of resource fragmentation in cross-border education through a “large-scale sharing” platform while preserving institutional autonomy through “small-scale colleges,” thereby achieving dynamic adaptation to the institutional environment of the free trade port; Its governance effectiveness is reflected in three dimensions: improved resource allocation efficiency, deepened collaborative governance, and precise talent supply, providing effective support for the opening-up of education in the free trade port. The study also found that the effectiveness of the “large-scale sharing + small colleges” model depends on three conditions: first, the sustained release of policy dividends, with the delegation of approval authority and fiscal support from the free trade port serving as the foundation for the model’s operation; second, the modernization of governance capabilities, requiring a professional management team to coordinate the interests of multiple parties; third, the improvement of risk prevention and control systems to ensure educational safety in the process of opening up. For China’s free trade port education opening-

up, the implications of the “large-scale sharing + small-scale colleges” model are as follows: First, institutional design must adhere to a “problem-oriented” approach, focusing on pain points such as resource barriers and insufficient coordination in cross-border education, and enhancing governance efficiency through structural innovation; Second, it is necessary to maintain “flexibility,” granting local authorities a certain degree of autonomy for reform within the framework of national strategy; Third, it is essential to strengthen “systemic thinking,” integrating education opening-up with industrial development and talent cultivation to form a virtuous cycle of “institutions-industry-talent.”

Disclosure statement

The author declares no conflict of interest.

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