

Research on the Mechanism of Connecting the Training and Employment Market of Maritime Talents in Hainan Free Trade Port

Xinyi Ma¹, Yufei Liu^{2*}, Wang Hu², Yuan Yuan²

1Key Laboratory of Philosophy and Social Science in Hainan Province of Hainan Free Trade Port International Shipping Development and Property Digitization, Hainan Vocational University of Science and Technology, Haikou, 571126, China

2Haikou Geological Survey of Marine Center, China Geological Survey, Haikou, 571126, China

**Corresponding author: liuyufei123@163.com*

Abstract: *Under the background of the construction of Hainan Free Trade Port, the mechanism of connecting the training and employment market of maritime talents is particularly important. This paper analyzes the current demand of the employment market for maritime talents in Hainan Free Trade Port and the specific requirements of enterprises for talents. It explores the existing docking mechanisms and their shortcomings, and proposes optimization suggestions such as strengthening school-enterprise cooperation, improving information sharing mechanisms, enhancing the quality of talent training, and optimizing policy support and incentives. The aim is to provide a theoretical foundation and practical guidance for the high-quality development of maritime talents in Hainan Free Trade Port.*

Keywords: *Hainan Free Trade Port, maritime talents, talent training, employment market, docking mechanism*

Introduction

With the advancement of the Hainan Free Trade Port construction, the shipping industry, as one of the key supporting industries, has an increasing demand for high-quality maritime talents. Currently, the mechanism for connecting the training of maritime talents and the employment market in Hainan Free Trade Port is not yet perfect, with issues such as the imbalance between talent supply and demand and the disconnect between training models and market needs. This paper aims to systematically analyze the mechanism of connecting the training and employment market of maritime talents in Hainan Free Trade Port and propose optimization strategies to enhance the quality of talent training, meet market demand, and promote the sustainable development of Hainan Free Trade Port.

1 Analysis of the Employment Market Demand for Maritime Talents in Hainan Free Trade Port

1.1 Current Market Demand

The rapid advancement of the Hainan Free Trade Port construction has driven the vigorous

development of the regional shipping industry (Xiu & Li, 2023)^[1], significantly increasing the demand for high-quality maritime talents. With the deepening implementation of the "Belt and Road" initiative and the strategic positioning of Hainan Free Trade Port, the status of international shipping hubs has been further consolidated, and the demand for professional shipping talents continues to rise. Hainan Free Trade Port not only needs traditional maritime technical talents but also requires compound talents with an international perspective and cross-cultural communication skills to cope with the increasingly complex international trade and shipping environment.^[2]

In this context, the demand for maritime professionals from shipping companies, port management agencies, and logistics enterprises has been increasing year by year. These enterprises need not only operational talents proficient in maritime technology and maritime regulations but also senior management talents with strategic thinking and management capabilities. Moreover, with the development of intelligent shipping and green shipping, there is an increasing demand for innovative talents proficient in big data analysis, artificial intelligence, and environmental protection technologies. Therefore, the maritime talent market in Hainan Free Trade Port exhibits multi-level and diversified demand characteristics.^[3]

1.2 Enterprise Requirements for Talents

Facing the changes in market demand, shipping-related enterprises in Hainan Free Trade Port have put forward higher and more specific requirements for talents (Cao et al., 2023).^[4] Firstly, in terms of professional knowledge and technical abilities, enterprises require talents to have solid maritime knowledge and skills, be familiar with international maritime regulations and standards, and be able to operate and maintain modern shipping equipment. At the same time, enterprises also require talents to have certain management capabilities, effectively coordinate and organize crew members, and handle various issues arising during shipping operations.

Secondly, in terms of professional quality and comprehensive abilities, enterprises have more comprehensive requirements for talents. In an international context, cross-cultural communication and coordination abilities are particularly important (Dauber & Spencer-Oatey, 2023).^[5] Enterprises hope that talents can work in multicultural environments, have good language abilities, and cross-cultural communication skills. Additionally, enterprises value the innovation and learning abilities of talents, hoping that they can continuously learn and master the latest technologies and knowledge to promote the technological innovation and management optimization of enterprises.

Finally, in terms of adaptability and sense of responsibility, enterprises have also raised their requirements for talents. The shipping industry's work environment is complex and changeable. Enterprises hope that talents can adapt to high-intensity and high-pressure work environments, have strong stress resistance and problem-solving abilities (Bouwmeester et al., 2021).^[6] At the same time, enterprises also require talents to have a high sense of responsibility and professional ethics, adhere to industry norms and enterprise systems, and ensure shipping safety and efficiency.

2 Analysis of the Docking Mechanism between Maritime Talent Training and Employment Market

2.1 Existing Docking Mechanisms

Currently, the docking mechanism between the training of maritime talents and the employment

market in Hainan Free Trade Port mainly relies on various forms such as school-enterprise cooperation, internships, and government support. School-enterprise cooperation is the most common docking model. Through establishing long-term stable cooperative relationships, colleges and shipping enterprises jointly formulate talent training programs to ensure that the training goals align with enterprise needs. For example, colleges cooperate with shipping companies to develop courses and jointly build training bases, allowing students to get involved in key aspects of enterprise operations during their studies, thereby enhancing their practical skills and employment competitiveness.

Internships are also an important part of the existing docking mechanism. Many colleges have signed cooperation agreements with shipping enterprises to arrange regular internships for students. Through internships in enterprises, students can apply theoretical knowledge learned in the classroom to practical operations, familiarize themselves with enterprise workflows and culture, and accumulate valuable practical experience. Meanwhile, enterprises can discover and absorb excellent talents through internships, achieving talent reservation and cultivation in advance.^[7]

Additionally, government support and coordination have played a significant role in connecting talent training with the market. The Hainan Provincial Government has introduced a series of policies to encourage colleges and enterprises to strengthen cooperation and jointly promote the alignment of talent training with market demand. For instance, the government provides special funds to support school-enterprise cooperation projects, establishes scholarships and internship subsidies to attract more outstanding students to choose maritime majors, and offers policy support to enterprises, encouraging their participation in talent training.

2.2 Deficiencies in the Docking Mechanism

Despite the existing docking mechanism promoting the connection between maritime talent training and market demand to a certain extent, there are still some deficiencies that need to be improved and perfected. Firstly, the depth and breadth of school-enterprise cooperation are insufficient. Although many colleges and enterprises have established cooperative relationships, most of the cooperation remains at the superficial level of internships and short-term projects, lacking deep cooperation and long-term planning. Enterprises' enthusiasm for participating in talent training is not high, and they have not fully played their role in cultivating practical talents.^[8]

Secondly, the information sharing and feedback mechanisms are imperfect. Currently, there is a lack of effective information-sharing platforms between colleges and enterprises, resulting in information asymmetry in talent demand and training. The actual needs of enterprises are not promptly conveyed to colleges, causing colleges' talent training goals and curriculum settings to lag behind market changes. Furthermore, colleges lack systematic collection and analysis of enterprise feedback during the talent training process, making it difficult to adjust training programs based on actual enterprise needs promptly.

Additionally, the strength of government policy support needs to be strengthened. Although some encouraging policies have been introduced, there are issues with inadequate implementation and limited coverage during specific implementation. Some colleges and enterprises lack understanding and utilization of government policies, failing to fully leverage the supportive role of policies. Meanwhile, the government's supervision and evaluation mechanisms for promoting school-enterprise cooperation, internships, and other aspects are not sound, affecting the effectiveness and sustainability of the docking mechanism.

3 Recommendations for Optimizing the Docking Mechanism between Maritime Talent Training and the Employment Market

3.1 Strengthening School-Enterprise Cooperation

Strengthening school-enterprise cooperation is an important way to optimize the docking mechanism between maritime talent training and the employment market. Firstly, a deep cooperation mechanism should be established, where colleges and shipping enterprises jointly formulate talent training plans to ensure that the curriculum content is closely aligned with market demands. For example, enterprises can participate in course design and the teaching process, providing practical cases and projects, allowing students to learn in real-world contexts. The actual needs of enterprises and cutting-edge technologies can be directly reflected in the teaching, enabling students to acquire the skills and knowledge required by the market during their studies. Furthermore, both parties should jointly develop training bases to enhance students' practical abilities through regular rotations and project practices. Training bases should be equipped with advanced shipping equipment and simulation systems to ensure that students can conduct safe and efficient training while being exposed to real environments.

Secondly, promoting joint research between schools and enterprises to solve practical problems in the shipping industry is crucial. Colleges can leverage their research advantages to collaborate with enterprises in technological innovation and applied research, driving industry technological progress. For example, both parties can jointly apply for research projects and carry out cutting-edge research in areas such as marine environmental protection and intelligent shipping system development to enhance the overall technological level of the industry. During joint research, students can participate in various stages of the projects, from problem discovery and solution design to experimental verification, fully cultivating their research capabilities and innovative thinking. This not only enhances students' research literacy but also allows them to accumulate valuable practical experience in solving real-world problems.

In addition, school-enterprise cooperation should encompass various aspects of talent training, such as talent recruitment, career planning, and continuing education. Enterprises can participate in college career planning courses, providing career guidance and employment training to help students better adapt to the workplace environment. Colleges can provide continuing education and professional development training for enterprise employees, enhancing their professional capabilities and management levels, achieving bidirectional talent flow and common development.

To ensure long-term stability in school-enterprise cooperation, both parties should establish regular communication mechanisms to provide timely feedback and resolve cooperation issues. For example, a joint management committee can be established to hold regular meetings to discuss and evaluate the progress and existing problems of cooperation projects, ensuring efficient operation and continuous improvement of the cooperation. By establishing long-term cooperation mechanisms, colleges and enterprises can achieve resource sharing and complementary advantages, jointly promoting the quality of maritime talent training.

3.2 Improving Information Sharing Mechanisms

A well-established information-sharing mechanism is crucial for ensuring seamless alignment between talent training and market demand. Firstly, a talent demand database should be established to regularly collect and update information on enterprise needs for maritime talents, including job

requirements, skill demands, and salary levels. This database should not only cover current demands but also predict future trends so that colleges can proactively adjust their training plans. For example, with the development of intelligent shipping and green shipping, colleges should add relevant content to the curriculum in advance to equip students with cutting-edge technologies and sustainable development concepts. Colleges can use this data to promptly adjust course settings and teaching content, ensuring that students acquire the skills and knowledge needed by the market.

Secondly, an information exchange platform should be constructed to facilitate information flow between colleges and enterprises. By combining online and offline methods, regular talent supply and demand meetings, industry forums, and school-enterprise negotiation meetings should be held to promote communication and cooperation between both parties. For example, colleges can publish graduate information through the school-enterprise cooperation platform, and enterprises can post recruitment needs, allowing for direct communication and interaction through the platform, enhancing talent matching efficiency. This platform can not only promote graduate employment but also help current students find internship and practice opportunities, gaining early insight into industry trends and enterprise needs.

Additionally, the information exchange platform can provide a venue for resource sharing and experience exchange between colleges and enterprises. Regular industry forums and seminars can be held to invite industry experts and enterprise executives to share the latest industry trends and technological developments, helping college teachers and students understand the forefront of industry development. School-enterprise negotiation meetings can lead to more cooperative projects such as joint course development and collaborative research, further deepening school-enterprise cooperation.

To ensure the effective operation of the information-sharing mechanism, colleges and enterprises should establish regular communication mechanisms. For example, setting up a school-enterprise cooperation office specifically responsible for coordinating and promoting information-sharing work. Colleges can regularly release updates on talent training progress and achievements to enterprises, while enterprises can provide feedback on their latest needs and suggestions, jointly optimizing talent training programs. Additionally, an evaluation system for information sharing should be established to regularly assess the effectiveness of information sharing, identify problems, and make timely adjustments to ensure the quality and effectiveness of information sharing.

Lastly, policy support is needed to perfect the information-sharing mechanism. The government can encourage and support colleges and enterprises to establish and improve information-sharing mechanisms through related policies. For example, providing financial support and rewarding colleges and enterprises that excel in information sharing and school-enterprise cooperation to create a positive collaboration atmosphere. The government can also set up higher-level information-sharing platforms to integrate resources from various parties and promote the widespread application and continuous improvement of the information-sharing mechanism.

3.3 Enhancing the Quality of Talent Training

Enhancing the quality of talent training is the core to meet market demands and increase students' employment competitiveness. Colleges should take a series of measures to ensure that their curriculum systems and teaching methods are closely aligned with industry development trends and technological advancements.^[9]

Firstly, colleges should continuously update and optimize their curriculum systems to ensure that the teaching content is always at the forefront of the industry. For example, with the rapid development of emerging fields such as intelligent shipping, big data analysis, and environmental protection, it is crucial to add relevant courses. By offering these courses, students can master the latest technologies and concepts, equipping them to face future challenges. Additionally, colleges should regularly evaluate and adjust existing courses to ensure that teaching content keeps pace with market demand changes. For example, adding courses on green shipping technologies and sustainable development policies enables students to acquire not only professional skills but also an understanding of industry trends and social responsibilities.

Secondly, enhancing the practice teaching aspect is key to improving students' practical operation abilities (Serevina et al., 2022).^[10] Colleges should provide abundant practice opportunities through various means such as simulation experiments, training projects, and on-site internships. For instance, in simulation laboratories, students can operate virtual shipping systems to experience actual operation processes, cultivating their ability to solve real-world problems. By cooperating with enterprises to develop training projects, students can practice in real work environments, accumulating valuable practical experience. Additionally, colleges should collaborate with enterprises to establish stable internship bases, regularly arranging for students to intern at enterprises to understand operational processes and actual demands, enhancing their professional adaptability and employment competitiveness.

Enhancing the quality of the teaching staff is a vital guarantee for improving talent training quality. Colleges should strengthen teacher training through various methods to enhance their professional competence and teaching abilities. For example, inviting industry experts to conduct specialized lectures and training sessions to share the latest industry trends and technological advancements, thereby improving teachers' professional knowledge levels. Additionally, organizing teacher secondments to enterprises allows them to participate in actual projects and management work, enhancing their practical experience in the industry. Colleges should also encourage teachers to participate in research projects and teaching reforms to enhance their innovation capabilities and research levels. Through research projects, teachers can grasp the latest research results and integrate these into teaching, providing higher-quality teaching resources and guidance.

To motivate teachers to continuously improve their quality, colleges should establish a comprehensive incentive mechanism. For example, setting up teaching and research awards to reward teachers who excel in teaching reforms and research projects, boosting their enthusiasm and innovation capabilities. Colleges should also provide career development support, such as offering further education opportunities and career development planning guidance, helping teachers continuously enhance their quality and professional competitiveness.

3.4 Policy Support and Incentives

Government policy support and incentives are crucial to optimizing the docking mechanism between maritime talent training and the employment market. Firstly, the government should increase support for school-enterprise cooperation projects by setting up special funds and providing tax incentives to encourage enterprises to actively participate in talent training. For example, establishing school-enterprise cooperation awards to recognize and reward outstanding enterprises and colleges in talent training, enhancing their participation enthusiasm. Special funds can be used to support joint curriculum

development, training base construction, and collaborative research projects between colleges and enterprises, deepening and broadening school-enterprise cooperation. Tax incentives can alleviate the economic burden of enterprises participating in cooperation, stimulating their enthusiasm for participation.^[6]

Secondly, the government should improve regulatory and evaluation mechanisms to ensure the effective implementation of various policies. By regularly evaluating the effects of school-enterprise cooperation and talent training, identifying and solving existing problems, and promoting the continuous optimization of the docking mechanism. Specifically, the government can establish specialized evaluation agencies to conduct comprehensive evaluations of school-enterprise cooperation projects, including cooperation quality, talent training effectiveness, and market alignment. Evaluation results should be open and transparent and serve as the basis for policy improvement and optimization. Additionally, the government should establish feedback mechanisms to encourage colleges and enterprises to provide opinions and suggestions for timely adjustment and improvement of relevant policies.

Furthermore, policy publicity and training should be strengthened to enhance colleges' and enterprises' understanding and utilization of policies, ensuring that various policy measures are effectively implemented. The government can detail relevant policies, application procedures, and specific requirements through policy briefings, training sessions, and policy interpretation documents. The government should also establish policy consultation services to provide timely policy explanations and guidance to colleges and enterprises, helping them better understand and utilize policies and facilitating the smooth implementation of cooperation projects.

To ensure the continued effectiveness of policies, the government should also engage in policy innovation and dynamic adjustment. As the shipping industry and talent market continue to develop, existing policies may face new challenges and issues. Therefore, the government should closely monitor industry and market changes, adjusting and innovating policies to address new situations and demands. For example, with the rise of intelligent shipping and green shipping, the government can introduce special policies supporting relevant talent training and technological innovation, promoting the industry's transformation and upgrading.

Conclusion

This paper analyzes the current demand status of the employment market for maritime talents in Hainan Free Trade Port, the requirements of enterprises for talents, and the existing docking mechanisms, revealing problems such as insufficient depth and breadth of cooperation, imperfect information sharing mechanisms, and inadequate policy support. To address these issues, the paper proposes recommendations for strengthening school-enterprise cooperation, improving information-sharing mechanisms, enhancing talent training quality, and providing policy support and incentives. Future research should further explore specific implementation strategies and evaluation methods to continuously optimize the docking mechanism between maritime talent training and the employment market, providing a solid talent guarantee for the development of the shipping industry in Hainan Free Trade Port.

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