

The Construction and Optimization of the Cross-border E-commerce Practical Teaching System from the Perspective of Industry-Education Integration

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Abstract: With the rapid development of globalization and the digital economy, cross-border e-commerce, as a new form of global trade, is increasingly becoming an important driving force for economic growth in various countries. However, issues such as the shortage of cross-border e-commerce talent and the lagging education system continue to restrict the sustainable development of the industry. In particular, in China, cross-border e-commerce education is still in the exploratory stage, and traditional educational models have failed to effectively adapt to the rapid development of the industry and the ever-changing technological innovations. Based on this, this study explores the construction and optimization paths of the cross-border e-commerce practical teaching system from the perspective of industry-education integration. The aim is to enhance the practical skills and international vision of cross-border e-commerce professionals through school-enterprise cooperation and innovative educational models. The paper first analyzes the current status of cross-border e-commerce education, revealing the main problems and challenges it faces. Then, based on the concept of industry-education integration, it proposes a framework for the construction of the cross-border e-commerce practical teaching system, including innovations in course design, skill development, and the construction of practical platforms. Finally, it suggests optimization measures such as deepening school-enterprise cooperation, optimizing teaching evaluation systems, and improving teacher qualifications to address the shortcomings in educational implementation. The study shows that the industry-education integration model can effectively bridge the gap between education and industry, providing a more precise path for cross-border e-commerce talent development.

Keywords: cross-border e-commerce, industry-education integration, practical teaching system, talent development, educational innovation, school-enterprise cooperation.

Introduction

With the acceleration of global economic integration, cross-border e-commerce has become an important force in driving global trade. As one of the largest cross-border e-commerce markets in the world, China faces a shortage of high-quality talent with practical skills. The existing education system has certain lag in course design, practical teaching, and international vision. Industry-education integration, as an important approach to improving talent cultivation quality, has attracted widespread attention in recent years. By strengthening cooperation between schools and enterprises and aligning curricula with industry needs, the aim is to cultivate compound talents with practical and innovative capabilities. This paper, from the perspective of industry-education integration, explores the construction and optimization paths of the cross-border e-commerce practical teaching system, aiming to address the shortcomings of the current education system, improve educational quality, and promote the development of the cross-border e-commerce industry.

1. The Current Status of Cross-border E-commerce Education

1.1 Development Trends of the Cross-border E-commerce Industry and Talent Demand

Cross-border e-commerce, as an important part of the global economy, is experiencing rapid growth driven by technological innovation, policy support, and consumer upgrading. The global cross-border e-commerce market is continuously expanding, especially showing significant growth potential in the Asian market. With its vast consumer market, well-established supply chain system, and mature e-

commerce platforms, China has taken a crucial position globally, promoting the transformation of international trade models and the rapid growth of cross-border consumption.

As the cross-border e-commerce industry thrives, the demand for high-quality, multidisciplinary e-commerce talent is increasing. The industry urgently requires professionals with skills in cross-border logistics, international marketing, global payment systems, and overseas market expansion. Particularly under the trends of digitalization and automation, cross-border e-commerce talent needs to possess emerging technical abilities such as data analysis, artificial intelligence, and big data utilization. Therefore, the cultivation of cross-border e-commerce talent faces challenges related to the diversification of skills and interdisciplinary career paths. The education system needs to develop in sync with industry demands to enhance talent development in terms of both comprehensive quality and innovation capacity^[1].

1.2 Current Status of the Cross-border E-commerce Education System

Currently, the domestic cross-border e-commerce education system is in a rapid development stage. Some higher education institutions and vocational colleges have already introduced courses and majors related to cross-border e-commerce, covering basic e-commerce skills, cross-border logistics, international payments, and cross-border marketing. However, overall, the education system for cross-border e-commerce is still in an exploratory phase, with issues such as incomplete curriculum design, insufficient practical teaching resources, and outdated educational models.

In terms of course design, the current education system tends to focus more on basic theory and operational skills training, but lacks sufficient attention to the application of cutting-edge technologies in cross-border e-commerce, international market expansion, and the cultivation of innovative thinking. Additionally, the alignment of course content with real-world work scenarios is relatively weak, with a lack of practical teaching modules and hands-on platforms. Therefore, optimizing educational content and strengthening students' practical abilities and innovative thinking through industry-education integration has become a key issue in the construction of the cross-border e-commerce education system.

Moreover, the school-enterprise cooperation model is gradually becoming an important part of cross-border e-commerce education. More and more universities are establishing close partnerships with cross-border e-commerce platforms, logistics companies, and other enterprises. Through building joint practice bases, co-developing courses, and jointly cultivating talent, they have achieved alignment between education and industry needs. However, school-enterprise cooperation still faces issues such as uneven resource allocation and insufficient depth of cooperation, which affect educational quality and training outcomes.

1.3 Main Problems and Challenges Facing Cross-border E-commerce Education

Despite some progress in cross-border e-commerce education, it still faces numerous problems and challenges in practical implementation. Firstly, the issue of outdated educational systems is particularly prominent. The existing courses and teaching content often lag behind industry development, lacking timely responses to the rapid changes in cross-border e-commerce. For example, policy changes in global e-commerce platforms, innovations in cross-border logistics systems, and updates to international payment technologies have not been incorporated into the curriculum, leading to graduates being ill-prepared for the industry's high demands.

Secondly, the lack of practical teaching resources is a major bottleneck for cross-border e-commerce education. Although some universities offer cross-border e-commerce programs, student practical skills are often not effectively developed due to low enterprise involvement and insufficient practical platform construction. Particularly in the complex and diverse context of cross-border e-commerce, weak practical teaching links make it difficult for students to gain sufficient experience through real cases and real-world environments^[2].

Additionally, the shortage of qualified faculty and the disconnect between professional educators and the industry are also significant challenges. Although some universities have invested in faculty development, the rapid development of the cross-border e-commerce industry and the fast pace of technological updates far outstrip the frequency at which traditional educational models are updated. As a result, faculty's practical experience and industry knowledge often fail to keep pace with changes. The lag in updating teaching methods and educational philosophies makes it difficult for the curriculum to meet students' future career development needs.

Finally, the internationalization of cross-border e-commerce education is relatively low. Currently, many universities focus their cross-border e-commerce courses on domestic market content, lacking in-depth discussion on global e-commerce trends, cross-cultural marketing, and international laws and regulations. Since cross-border e-commerce inherently involves strong international attributes, the education system urgently needs to focus on cultivating students' international vision, cross-cultural communication skills, and global market operational abilities.

Overall, the cross-border e-commerce education system faces structural, content-related, and resource-related challenges, which need to be comprehensively optimized and innovated through industry-education integration to better meet the industry's development needs and students' career growth.

2. The Construction of the Cross-border E-commerce Practical Teaching System

2.1 Course Design of Cross-border E-commerce under the Industry-Education Integration Model

Under the context of industry-education integration, the course design for cross-border e-commerce should fully consider industry demands and the development of academic disciplines, establishing a curriculum system closely aligned with market needs. The course design should organically integrate basic knowledge and cutting-edge skills. Basic courses such as enterprise visits, international trade, e-commerce principles, and cross-border logistics should provide students with the core concepts and operational frameworks of cross-border e-commerce, while advanced courses should cover global e-commerce platform operations, cross-border payment solutions, international digital marketing, and international regulatory compliance. This will help students keep pace with the latest industry trends. Furthermore, cross-border e-commerce courses should advocate for project-based, modular, and case-driven teaching models. By designing project-oriented courses, students can combine theoretical knowledge with real-world problems, thereby enhancing their comprehensive application abilities. Real industry cases should be embedded in the curriculum, and industry experts should be invited to explain the cases or collaborate with enterprises to co-develop courses. This will help students gain valuable industry experience through practical involvement. Additionally, the course design should strengthen interdisciplinary integration, particularly the combination of information technology, data analysis, and e-commerce applications, to cultivate students' e-commerce operations abilities in a digital environment.

2.2 Teaching Objectives and Framework for the Development of Professional Competencies in Cross-border E-commerce

The teaching objectives of the cross-border e-commerce major should closely align with industry development needs and focus on cultivating multifaceted e-commerce professionals with an international perspective, practical skills, and innovative thinking. Firstly, the teaching objectives should emphasize cultivating students' international perspectives, enabling them to gain an in-depth understanding of global market operations, particularly the operations of cross-border e-commerce, international regulations, and cultural differences, thereby enhancing their global competitiveness. Secondly, the course content should focus on developing core skills in cross-border e-commerce, such as e-commerce platform operation, global payment settlement, and cross-border logistics management, ensuring that students are proficient in operating cross-border e-commerce platforms and navigating the complexities of international markets. Thirdly, the teaching framework should emphasize data analysis and the application of digital tools. With the widespread use of big data, artificial intelligence, and other technologies in the e-commerce industry, the curriculum should incorporate data analysis and digital marketing to enhance students' abilities to optimize e-commerce operations using emerging technologies. Lastly, the teaching objectives should include fostering students' innovative thinking and practical skills through project-based training, enterprise collaboration, and industry practice. This will enable students to effectively address industry challenges in practice and improve their overall quality^[3].

2.3 Construction of a Diversified Cross-border E-commerce Practical Teaching Platform

To enhance the practical and operational nature of cross-border e-commerce education, constructing a diversified practical teaching platform is crucial. Firstly, the enterprise cooperation practice platform is an essential form of industry-education integration. Schools should collaborate with cross-border e-commerce platforms, logistics companies, payment companies, and other enterprises to build multi-platform cross-border e-commerce training bases, providing targeted training based on the different job

demands of enterprises, such as B2B, B2C, and C2C models. Enterprises can participate in course design and provide industry cases, and students can gain valuable industry experience through practical opportunities provided by these enterprises, thereby enhancing their practical abilities. Secondly, virtual simulation practice platforms should also become an important part of cross-border e-commerce education. By constructing virtual simulation platforms, students can engage in activities such as setting up e-commerce platforms, market expansion, and product marketing in simulated environments, thus enhancing their real-world operational capabilities. Project-based practical training in cross-border e-commerce is also a key teaching model. Schools should collaborate with various industries to establish teams composed of professional teachers, enterprise mentors, and student groups. These teams can work on real projects involving e-commerce platform construction and operation, covering market research, product promotion, cross-border logistics, and other aspects. At the same time, reasonable evaluation and incentives should be provided during the actual project operation to increase participation and motivation among both teachers and students. Through these diversified practical platforms, cross-border e-commerce education can offer students broader learning spaces and career development opportunities, driving deeper integration between education and industry needs^[4].

3. Optimization of the Cross-border E-commerce Practical Teaching System

3.1 Improvement of the Deep Collaboration Mechanism between Schools and Enterprises

Deep collaboration between schools and enterprises is the core of industry-education integration, particularly in the cross-border e-commerce sector. Establishing a close and efficient collaboration mechanism is crucial. Firstly, school-enterprise cooperation should focus on "talent cultivation" rather than direct benefits. The collaboration should aim at jointly cultivating outstanding talent and establishing a deep mechanism based on "co-construction, co-management, co-education, and co-sharing." Enterprises, with their practical experience, can provide industry insights for course updates, ensuring that the courses align with market demands and cover cutting-edge technologies such as cross-border e-commerce platform operations, international payment, and cross-border logistics.

In addition, school-enterprise cooperation should focus on the deep integration of practical components. Realistic teaching environments for cross-border e-commerce, such as laboratories and training bases, should be jointly built, offering students a genuine cross-border e-commerce operational environment to improve their hands-on skills and problem-solving abilities. For example, Zhejiang Yuexiu Foreign Languages College collaborates with cross-border e-commerce platforms like Alibaba and Amazon to establish "Cross-border E-commerce Collaborative Education Base Classes" and "Alibaba Digital Trade Academy." The enterprise not only provides internship and employment opportunities but also jointly develops textbooks and offers courses, enhancing the practicality and foresight of the curriculum.

By strengthening school-enterprise cooperation, schools can ensure that talent training closely aligns with industry needs, improving the quality of education and students' employability. The cooperation model at Zhejiang Yuexiu Foreign Languages College provides a successful example for cross-border e-commerce talent cultivation.

3.2 Optimization and Innovation of the Teaching Evaluation System

The teaching evaluation system for cross-border e-commerce education should meet the requirements of modern education, focusing on process evaluation and the assessment of comprehensive abilities, breaking away from the traditional reliance on exam scores. Firstly, the teaching evaluation should place greater emphasis on cultivating students' practical abilities, innovation capabilities, and teamwork spirit, among other comprehensive qualities. As cross-border e-commerce is a highly practical and innovative industry, traditional theoretical exams can no longer fully reflect students' practical abilities. Assessment methods such as project evaluations, enterprise practice performance, and real-world case analyses can be used to comprehensively evaluate students' problem-solving and application abilities in a cross-border e-commerce environment. For example, setting up cross-border e-commerce platform construction and operation projects to evaluate students' abilities in market analysis, product promotion, cross-border logistics, and other aspects through their performance in the project^[5].

Secondly, the teaching evaluation system should consider the demands of emerging technologies and frontier developments in cross-border e-commerce. Technologies such as big data analysis, artificial intelligence, and digital marketing have become integral to the cross-border e-commerce sector.

Educational evaluation needs to incorporate the application of these technologies to assess students' innovative application abilities in a digital environment. Therefore, the evaluation system should be further refined to include assessments on students' abilities in big data analysis, data-driven decision-making, and digital marketing.

Furthermore, innovative assessment methods should be widely applied. Multi-dimensional evaluation mechanisms, such as peer evaluation, self-assessment, and enterprise mentor evaluation, can be added to the traditional evaluation system. This encourages students to reflect on and improve their learning process, boosting their awareness of independent learning and self-improvement.

3.3 Enhancement of Teacher Professional Competency and Innovation of Teaching Methods

Teachers play a crucial role in cross-border e-commerce education, and their professional competency and innovative teaching methods directly affect the quality of teaching and the improvement of student abilities. Firstly, teachers' professional competencies should be continuously improved. Cross-border e-commerce is a dynamically developing industry, and teachers need not only a solid theoretical foundation but also the latest industry knowledge. Schools can strengthen collaboration with enterprises, encourage teachers to participate in industry projects, lectures, and seminars, helping them stay informed about market changes, technological innovations, and industry trends. For example, Zhejiang Yuexiu Foreign Languages College collaborates with multiple enterprises to provide industry practice opportunities for teachers and offers free training opportunities to enhance their professional competencies.

Secondly, teachers' teaching methods should be more diversified. Traditional classroom teaching is no longer sufficient to meet the needs. Interactive and heuristic teaching methods can better stimulate students' innovative thinking and practical abilities. Through case analysis, team collaboration, and other methods, students can better understand the operational models of cross-border e-commerce.

An example of innovative teaching methods is the "3+1" cross-border e-commerce entrepreneurship experimental class at Zhejiang Yuexiu Foreign Languages College. The school collaborates with numerous platform enterprises and manufacturing companies, implementing project-based training centered around real platforms and products, setting up multi-platform e-commerce operation classes and live-streaming e-commerce directions. This approach combines practice with teaching, allowing students to master cross-border e-commerce skills while engaging in hands-on operations.

In addition, cross-border e-commerce education should integrate information technology, such as virtual simulation and online platforms, to enhance students' learning experiences and operational capabilities. Overall, improving teacher competency and innovating teaching methods are key to enhancing the quality of cross-border e-commerce education^[6].

3.4 Internationalization and Frontier Development of Teaching Content

The internationalization and frontier development of teaching content are key to adapting to industry needs and enhancing the quality of education in cross-border e-commerce. Firstly, the teaching content should be more internationalized. Cross-border e-commerce is essentially a global business activity, and educational content should cover the dynamics of the global e-commerce market, cross-cultural communication skills, e-commerce operational models in different regions, and the operation of international e-commerce platforms, helping students fully understand the international market environment of cross-border e-commerce and diverse consumer demands. Schools can offer internationalized courses in cross-border e-commerce, such as cross-cultural communication, and invite foreign teachers and industry experts to give lectures, increasing students' understanding of global e-commerce trends and cultivating their cross-cultural communication and international business capabilities.

Secondly, the teaching content should keep up with the frontiers of industry development. With technological advancements and changing market demands, cross-border e-commerce is constantly evolving. For example, digital marketing, big data applications, and artificial intelligence-driven e-commerce platform optimization have become core competitive advantages in cross-border e-commerce. The teaching content should be updated in a timely manner to incorporate these cutting-edge technologies, helping students master the latest e-commerce operation techniques and industry development directions. Cross-border e-commerce education should stay highly synchronized with industry dynamics, promoting continuous innovation in teaching content to ensure that students can tackle various challenges in the industry upon graduation.

In conclusion, the internationalization and frontier development of teaching content not only help enhance students' global perspectives and innovative abilities but also improve the market adaptability of the educational system, enabling the cross-border e-commerce talent it cultivates to stand out in global competition.

Conclusion

This paper, from the perspective of industry-education integration, proposes the construction and optimization path of the cross-border e-commerce practical teaching system, addressing issues such as outdated course content, insufficient practical teaching resources, and the disconnect between education and industry needs. By updating course content, building practical teaching platforms, and deepening school-enterprise cooperation, the practical and innovative abilities of cross-border e-commerce talent have been enhanced. The research indicates that industry-education integration can effectively compensate for the deficiencies of the traditional education system and improve students' market adaptability. However, as the industry develops and technologies advance, the education system needs to be continuously optimized. In the future, cross-border e-commerce education should focus more on global perspectives, the introduction of cutting-edge content, and continuous teacher training to further drive innovation in industry development and talent cultivation.

Fund Project

Project Source: The Second Batch of Zhejiang Province's "14th Five-Year Plan Undergraduate Education and Teaching Reform Projects. Project Name: Exploration of Reform of Cross-border E-commerce Practice Teaching Based on PBL. Project Number: (JGBA024825)

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