

Original Research Article

Research on innovation of cross-border e-commerce talent cultivation models empowered by digital intelligence*Zhen Fang**School of International Economics and Trade, Shandong University of Finance and Economics, Jinan, Shandong, 250014, China*

Abstract: This paper explores the innovation of cross-border e-commerce talent cultivation models under the empowerment of digital intelligence. It analyzes the current status and challenges of existing talent cultivation models, proposes the impact of digital intelligence on talent cultivation, and constructs an innovative model. The research findings indicate that the application of digital intelligence technologies can significantly enhance the quality and efficiency of talent cultivation. This paper provides theoretical basis and practical guidance for universities and other educational institutions to respond to the rapid development and technological changes in the cross-border e-commerce industry.

Keywords: Digital Intelligence Empowerment; Cross-Border E-commerce; Talent Cultivation; Model Innovation; Educational Technology

1. Introduction

The rapid development of globalization and digitalization has brought unprecedented opportunities and challenges to the cross-border e-commerce industry. Digital intelligence technologies, such as big data, artificial intelligence, and blockchain, are profoundly changing the way the industry operates and the demand for talent. Traditional models for cultivating cross-border e-commerce professionals can no longer meet the industry's need for high-quality, multi-skilled talents. Therefore, exploring innovative approaches to cultivating cross-border e-commerce professionals empowered by digital intelligence is of great theoretical and practical significance.

Globalization has gradually reduced international trade barriers, making cross-border e-commerce an important engine for global economic growth. According to data from the United Nations Conference on Trade and Development (UNCTAD), the global transaction volume of cross-border e-commerce has grown several-fold over the past decade and is expected to maintain strong growth in the coming years. Meanwhile, the rapid development of digital technologies, especially the widespread application of the Internet, mobile communication, and cloud computing, has provided strong technical support for cross-border e-commerce. These technologies have not only reduced transaction costs but also improved transaction efficiency, allowing small and medium-sized enterprises to easily participate in global market competition.

Digital intelligence technologies, including big data, artificial intelligence, blockchain, and the Internet of Things, are reshaping every aspect of cross-border e-commerce. For example, big data analysis can help enterprises accurately predict market demand and optimize inventory management; artificial intelligence can enhance the intelligence level of customer service and achieve personalized recommendations; blockchain technology can increase the transparency and security of transactions and reduce the risk of fraud. The application of these technologies has not only improved the operational efficiency of enterprises but also significantly enhanced the shopping experience for consumers.

With the widespread application of digital intelligence technologies in cross-border e-commerce, the industry's demand for talent has also undergone profound changes. Under the traditional model, enterprises mainly needed talents with basic knowledge of international trade and e-commerce. However, in the new era empowered by digital intelligence, enterprises require high-quality, multi-skilled talents with cutting-edge skills in data analysis, artificial intelligence applications, blockchain technology, etc. Moreover, since cross-border e-commerce involves multiple countries and regions, talents also need to possess cross-cultural communication skills and international business capabilities.

Although some universities have begun to integrate digital intelligence technologies into their curriculum systems, the overall effect is still not satisfactory. The main problems include the curriculum content lagging behind technological development, weak practical teaching links, and insufficient teaching staff. For example, the curriculum settings of many universities still focus on traditional e-commerce and international trade theories, lacking in-depth explanations of cutting-edge technologies such as big data and artificial intelligence. Practical teaching often remains superficial, making it difficult for students to gain real cross-border e-commerce operational experience.

2. Current status and challenges of cross-border e-commerce talent cultivation models

At present, the cultivation of cross-border e-commerce professionals mainly relies on universities and vocational training institutions. Universities train professionals by establishing relevant majors or courses (such as e-commerce and international trade), while vocational training institutions enhance the skills of practitioners through short-term training and certification courses. However, these traditional cultivation models face many challenges in coping with the rapid changes in the industry and technological innovations.

In terms of curriculum settings, the content of many university courses is updated slowly and struggles to keep pace with the development of digital intelligence technologies. For example, cutting-edge technology courses such as big data analysis and artificial intelligence applications have not yet been widely adopted in most universities, resulting in students lacking the necessary technological literacy. Moreover, the curriculum system tends to focus on theoretical teaching, with relatively weak practical components, making it difficult for students to apply theoretical knowledge to real work.

Regarding teaching staff, there is a relative shortage of professional teachers in the field of cross-border e-commerce. Many teachers lack industry experience and find it difficult to integrate the latest industry trends and technological applications into their teaching. Universities also face many difficulties in recruiting and training teachers with backgrounds in digital intelligence technologies.

3. The impact of digital intelligence empowerment on cross-border e-commerce talent cultivation

The impact of digital intelligence empowerment on cross-border e-commerce talent cultivation is mainly reflected in the following aspects:

(1) The realization of personalized learning

Digital intelligence technologies make personalized learning possible. Through big data analysis, educational institutions can accurately grasp students' learning behaviors and outcomes, thereby formulating personalized learning plans. For example, intelligent learning platforms can recommend suitable learning resources and

practice questions based on students' learning progress and comprehension levels, improving learning efficiency. Personalized learning can not only meet the diverse learning needs of students but also stimulate their interest and initiative in learning, thereby enhancing learning outcomes.

(2) Enrichment of teaching methods and resources

Digital intelligence technologies have enriched teaching methods and resources. Virtual Reality (VR) and Augmented Reality (AR) technologies can simulate real cross-border e-commerce environments, allowing students to practice operations in virtual scenarios and enhance their practical abilities. For example, students can experience the entire cross-border e-commerce transaction process through VR technology, from product listing, order processing to logistics delivery, and fully understand the operational details of each link. In addition, online education platforms and Massive Open Online Courses (MOOCs) provide students with abundant learning resources, breaking the limitations of time and space. Students can learn the latest cross-border e-commerce knowledge and skills anytime and anywhere.

(3) Deepening of school-enterprise cooperation

Digital intelligence technologies have promoted the deepening of school-enterprise cooperation. Through big data and artificial intelligence technologies, enterprises can keep abreast of students' learning situations and ability levels in real-time, thereby more accurately selecting and cultivating talents. For example, enterprises can identify students with potential through analyzing their learning data and offer them internship and employment opportunities. At the same time, enterprises can introduce real business data into teaching, allowing students to exercise their skills in real projects and enhance their employability. School-enterprise cooperation can not only improve students' practical abilities but also provide enterprises with high-quality talents that meet their needs, achieving a win-win situation.

(4) Scientific evaluation of education

Digital intelligence technologies have provided new tools and methods for educational evaluation. Traditional examination and assessment methods are difficult to fully reflect students' comprehensive abilities. However, through big data analysis and artificial intelligence technologies, students' learning processes, practical abilities, and overall qualities can be comprehensively assessed. For example, by analyzing students' learning data, their learning attitudes, learning outcomes, and practical abilities can be evaluated, providing a scientific basis for improving educational quality. The scientific evaluation of education can not only improve the accuracy and fairness of evaluation but also provide guidance for students' personalized development.

4. Innovation in cross-border e-commerce talent cultivation models empowered by digital intelligence

Under the background of digital intelligence empowerment, the innovation of cross-border e-commerce talent cultivation models needs to be approached from multiple aspects to cope with the challenges of rapid industry changes and technological innovation.

(1) Optimization and update of the curriculum system

The optimization and update of the curriculum system are the primary tasks. Universities should keep pace with the development trends of digital intelligence technologies and update the curriculum content in a timely manner. They should also introduce cutting-edge courses such as big data analysis, artificial intelligence applications, and blockchain technology. For example, courses like "Big Data Analysis and Application," "Application of Artificial Intelligence in E-commerce," and "Blockchain Technology and Cross-Border

Payments” can be offered to ensure that students master the latest digital intelligence technologies. At the same time, interdisciplinary integration should be strengthened by combining knowledge from information technology, international trade, marketing, and other fields to cultivate talents with a composite knowledge structure. For example, interdisciplinary courses such as “Cross-Border E-commerce Data Analysis” and “Intelligent Marketing and Consumer Behavior Analysis” can be offered to enhance students’ comprehensive abilities.

(2) Innovation in teaching methods

Innovation in teaching methods is the key to improving the quality of talent cultivation. Traditional lecture-based teaching can no longer meet students’ learning needs. A variety of teaching methods, such as project-driven, case-based teaching, and flipped classroom, should be adopted. For example, by simulating real cross-border e-commerce projects, students can solve practical problems in team collaboration, enhancing their practical and teamwork abilities. In addition, Virtual Reality (VR) and Augmented Reality (AR) technologies can be used to create immersive learning environments, enhancing students’ learning experiences and participation. For example, VR technology can be used to simulate cross-border e-commerce transaction scenarios, allowing students to practice in virtual environments and improve their practical abilities.

(3) Construction of practical platforms

The construction of practical platforms is an important guarantee for cultivating applied talents. Universities should strengthen cooperation with enterprises to establish integrated industry-university-research practice bases. By introducing real business data and cases from enterprises, students can exercise their skills in real working environments. For example, a “Cross-Border E-commerce Training Center” can be established in cooperation with enterprises, where students can participate in real cross-border e-commerce projects, from product listing, order processing to logistics delivery, and fully understand the operational details of each link. At the same time, cloud computing and big data technologies can be used to build online practice platforms, allowing students to conduct simulation operations and data analysis anytime and anywhere, enhancing their practical abilities. For example, a “Cross-Border E-commerce Simulation Platform” can be developed, where students can practice and improve their practical abilities.

(4) Construction of teaching staff

The construction of teaching staff is the foundation of talent cultivation model innovation. Universities should increase the recruitment and training of teachers with backgrounds in digital intelligence technologies and industry experience. Cooperation with enterprises can be established to hire industry experts as part-time teachers or to send teachers to enterprises for on-the-job training, enhancing their practical teaching abilities. For example, experts from cross-border e-commerce enterprises can be invited to teach on campus, or teachers can be sent to enterprises for on-the-job training to improve their practical abilities. In addition, teachers should be encouraged to participate in research and application of digital intelligence technologies, integrating the latest research results into teaching to enhance the advancement and practicality of teaching content. For example, teachers can be encouraged to participate in digital intelligence technology research projects and integrate research results into teaching to improve the advancement of teaching content.

(5) Cultivation of an international perspective

Cross-border e-commerce involves multiple countries and regions, and talents need to possess cross-cultural communication skills and international business capabilities. Therefore, universities should focus on cultivating students’ international perspectives. For example, courses such as “Intercultural Communication,”

“International Business Etiquette,” and “Global Market Analysis” can be offered to enhance students’ cross-cultural communication abilities. In addition, cooperation with international universities can be established to conduct exchange programs and joint training programs, broadening students’ international horizons. For example, a “Cross-Border E-commerce Dual-Degree Program” can be launched in cooperation with international universities, where students study at both domestic and foreign universities and earn dual degrees, enhancing their international competitiveness.

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