

Research on Training of E-Commerce Professionals in Higher Vocational Colleges Under the Background of Digital Economy

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Abstract: In recent years, with the rapid development of the Internet, big data, and cloud computing technology, China has gradually entered the era of the digital economy. E-commerce, as an important product of this era, serves as a powerful driving force to promote national economic and social development^[1]. Therefore, higher requirements are being placed on e-commerce talents. Vocational colleges, as the main institutions for training e-commerce talents, need to align with the developmental needs of the digital economic era. They should further optimize the training of e-commerce professionals and cultivate the high-quality talent required by the industry. This paper thus investigates the training of e-commerce professionals in higher vocational colleges against the backdrop of the digital economy, aiming to provide valuable insights for relevant education researchers.

Keywords: Digital economy; Higher vocational colleges; Electronic commerce major; Talent training

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1. Introduction

Currently, the development of the e-commerce industry and the progression of the digital economy are mutually reinforcing and complementary. With the rapid advancement of the digital economy, higher demands have been placed on the skills and qualities of e-commerce professionals. It is evident that training high-quality e-commerce talents required by the industry has become a top priority^[2]. Therefore, to foster the sustainable development of the e-commerce industry, higher vocational colleges need to revise their teaching concepts, proactively adapt to the current social and economic changes, innovate, and optimize the training methods for e-commerce talents. They should establish a fair, open, and healthy e-commerce teaching environment and promote the deep integration of e-commerce with traditional industries. Consequently, the quality of training for e-commerce professionals must be continuously enhanced.

2. Analysis of the change in demand structure of e-commerce professionals under the backdrop of the digital economy

2.1. Increase in the proportion of e-commerce operational positions

Traditional e-commerce roles can be broadly categorized into three groups: technology, business (operations, sales), and general management. In the early and expansion stages of e-commerce development, the employment needs of e-commerce enterprises primarily revolved around the ability to construct e-commerce platforms and design visually appealing store websites. However, with the onset of the digital economy era, China's information infrastructure is becoming increasingly sophisticated, leading to the continuous advancement and popularization of e-commerce. Consequently, e-commerce enterprises now require a deeper understanding of e-commerce operations and promotion, causing a decline in the demand for technical positions ^[3]. Therefore, from the perspective of job demand within e-commerce enterprises, operational roles have become the primary requirement, constituting a significant portion of enterprise recruitment needs. Furthermore, with the rapid expansion of e-commerce enterprises, there is a particularly urgent demand for high-level e-commerce operational talents.

2.2. Growing demand for data analysis and application talents

In the digital economy landscape, big data technology has emerged as the most dynamic new production factor, serving as a crucial element and strategic resource for enterprise operations. Unlike the traditional retail sector, e-commerce possesses the advantage of real-time monitoring and improvement through mathematical analysis. Data serves as the cornerstone for enterprise decision-making processes. Through effective data analysis, e-commerce enterprises can gain precise insights into customer behavior, optimizing fund allocation, inventory management, and maximizing sales ^[4]. Consequently, enhancing students' abilities in data analysis and application has become a focal point for e-commerce professionals.

2.3. Emergence of new e-commerce roles

Within the rapidly evolving digital economy, new e-commerce models have emerged, such as social e-commerce, live streaming e-commerce, and interest-based e-commerce, spawning a variety of novel e-commerce roles. For instance, platforms like Taobao, Jingdong, and Douyin utilize short videos or live broadcasts to promote products, significantly boosting sales performance within short durations. This phenomenon has propelled the rapid growth of the e-commerce live-streaming industry, driving an increase in demand for related roles. However, the rate of job seekers exceeds the growth in job demand. Hence, educators should tailor training content for e-commerce talents based on current industry developments ^[5].

3. Challenges in training e-commerce professionals in higher vocational colleges amidst the digital economy

3.1. Obsolete teaching materials

Currently, there are several issues plaguing the educational landscape, including the disparity between teaching materials and the digital economy era, as well as the sluggish pace of content updates. Furthermore, the theoretical nature of the teaching content coupled with its lack of practical application renders it abstract and outdated. Consequently, it fails to address the current developmental needs of students. For instance, while students exhibit a keen interest in emerging e-commerce models, few textbooks incorporate relevant content. Moreover, due to educators' reluctance to adapt their teaching methodologies, textbook content remains stagnant for extended periods, resulting in the failure of e-commerce teaching materials to align with the

evolving demands of the digital economy era.

3.2. Underutilization of information technology

In the digital economy era, the integration of information technology is imperative throughout the training process of e-commerce professionals in higher vocational colleges. However, in practice, educators seldom leverage information technology for relevant training activities. Despite vocational schools' efforts to promote information teaching methods and procure simulation and practical training software, educators lack proficiency in their application. Additionally, the utilization of information technology fails to cater to students' learning preferences or meet the requirements of e-commerce teaching. Therefore, educators must proactively embrace information technology to train e-commerce professionals ^[6].

3.3. Deficiency in digital literacy among educators

As digital technology undergoes rapid advancements, the operational landscape of the e-commerce industry evolves correspondingly. Consequently, educators specializing in e-commerce must continuously update their professional knowledge and proficiently utilize digital technology to effectively cultivate practical e-commerce talents ^[7]. However, under the traditional teaching paradigm, educators struggle to leverage digital technology effectively due to their inadequate digital literacy. This deficiency inevitably hampers the training of e-commerce talents to meet the developmental demands of the digital economy era.

4. Strategies for training e-commerce professionals in higher vocational colleges amidst the digital economy

4.1. Maximizing information resources and enhancing the development and application of tailored textbooks

Firstly, the creation of specialized textbooks is essential. Establishing a dedicated team for research and development of teaching materials, centered on vocational skills training, is paramount. These materials should encompass new knowledge, trends, and technologies in the e-commerce industry within the digital economy era, incorporating the latest, exemplary, and cutting-edge case studies to enrich content. Moreover, modern information technology and mobile devices should be effectively integrated by teachers, coupling text with multimedia resources such as audio, images, and video. This enriches the presentation of textbook content, enhances student immersion and engagement, and fosters active and efficient learning ^[8].

Secondly, diversification of digital teaching resources should be pursued to achieve resource sharing. Teachers should leverage the resources and technology advantages of e-commerce enterprises, aligning them with the curriculum for e-commerce professionals. Digital teaching resources, including electronic textbooks, courseware, practice guides, short video lessons, online quizzes, and worksheets, should be developed in various formats and media types ^[9]. This supports the entire talent training process, providing teachers with multifaceted teaching programs for different learning scenarios, and fostering educational and learning method innovations to enhance the quality of e-commerce talent training.

4.2. Enrichment of training methods and models to foster student initiative

Firstly, adopting a multi-talent training model is imperative. The application of digital technology has transformed student learning methodologies, shifting them toward student-centered approaches. In classrooms, students assume a more prominent role, with teachers acting as guides and tailoring teaching plans to individual student characteristics. Emphasizing student-centric approaches promotes teaching and research, enriches

teaching content, and enhances talent training outcomes ^[10].

Secondly, fostering institution-enterprise collaboration is crucial for talent cultivation. Deep integration between vocational colleges and enterprises facilitates resource and interest sharing. Moving practical classes to e-commerce enterprises, inviting exemplary employees as instructors, and employing cutting-edge technology for “transmission, assistance, and guidance” in practical training promote hands-on learning. This cultivates students’ professional ethos emphasizing innovation, rigor, and practicality, thereby realizing the objectives of educational collaboration between institutions and enterprises.

Lastly, integrating digital technology into e-commerce professional training is essential. In the digital economy context, teachers must flexibly employ digital technology to enhance training efficiency. Digital technology should be seamlessly integrated into talent training content, with learning resources deployed on online platforms using technologies such as cloud computing, big data, and virtual reality. This enables students to engage with diverse teaching content effectively ^[11].

4.3. Subdivision of talent training modules to enhance comprehensive literacy

Firstly, the implementation of practical training modules is crucial. Practical training modules are integral to specialized personnel training, encompassing comprehensive training in e-commerce digital operations and decision-making. For instance, the e-commerce digital operation and decision-making module furnishes students with authentic data and basic analysis services to facilitate store analysis, product analysis, store planning, and related operations, enabling students to grasp theoretical knowledge and apply it practically ^[1].

Secondly, the digital operation module should be integrated with e-commerce platforms. Through data operation modules, students conduct detailed analyses of the e-commerce industry, competitive products, stores, and consumer sentiment. Utilizing big data technology, students extract necessary data from vast e-commerce information sources, enabling them to plan store operations and development direction logically. Additionally, students employ data analysis and visualization methods to create e-commerce operation data reports for online platform reference, fostering collaboration and knowledge sharing.

Lastly, the big data analysis module focuses on professional construction and industry applications. It integrates campus resources efficiently, classifying them based on e-commerce industry development data ^[1]. Furthermore, it establishes an intelligent training platform based on big data analysis, enabling students to enhance their big data analysis and application abilities in realistic training scenarios, and fostering e-commerce-centric thinking.

4.4. Enhancing “research and development” and “learning and innovation” levels to elevate talent training outcomes

As a nascent economic form, the rapid development of the digital economy is fundamentally driven by scientific and technological innovation. Traditional e-commerce is Internet-based, whereas, in the digital economy environment, e-commerce is artificial intelligence (AI)-driven. Therefore, vocational schools and teachers must prioritize scientific and technological innovation to elevate students’ theoretical and practical proficiency, thereby prompting internal reforms in e-commerce professional training ^[14].

Initially, vocational schools should establish conducive environments for student scientific and technological innovation, bolstering economic support and expanding innovation scopes. Moreover, they should create external environments conducive to student innovation. Secondly, “research and development” extends beyond technological innovation to include course design, professional integration, and competition mechanisms. Timely verification of research results and efficient transformation of research outcomes enhance e-commerce professional training in the digital economy.

Finally, promoting “learning and innovation” leverages the abundance of student ideas and numbers. Vocational schools should institute effective selection mechanisms to encourage student-driven scientific and innovative research. Various forms of recognition, such as publications, competition results, and entrepreneurial projects, should incentivize students, further enriching the training outcomes for e-commerce professionals ^[15].

5. Conclusion

In conclusion, amidst the ongoing digital economy-driven social development, the training of innovative e-commerce professionals in higher vocational schools necessitates a multifaceted approach. This includes maximizing the utilization of information resources and fortifying the development and application of specialized textbooks. Furthermore, enriching training methods and models is essential to fully engage students in learning. Subdividing talent training modules is crucial to effectively enhance students’ overall competency. Moreover, elevating the levels of “research and development” and “learning and innovation” is imperative to enhance the effectiveness of personnel training. These measures not only contribute to the ongoing refinement of the e-commerce professional training mode but also serve to elevate the quality of higher vocational e-commerce professional training. Ultimately, they provide robust support for the development of China’s e-commerce industry, thereby fostering its prosperity and growth.

Disclosure statement

The author declares no conflict of interest.

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