

Research on the Teaching System and Innovative Talent Development in E-Commerce Major

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Abstract: As an evolving and dynamic field, e-commerce requires professionals with comprehensive knowledge and innovative capabilities to adapt to market changes and challenges. This article aims to explore strategies for improving the educational system in e-commerce majors and key elements and strategies for cultivating innovative e-commerce talents. The article begins by analyzing the current state of the e-commerce major's educational system and proposing optimization strategies. It then delves into the key elements of e-commerce talent development and strategies for nurturing innovative talents, with the goal of producing superior e-commerce professionals.

1. Introduction

E-commerce has become a vital component of today's business world, offering unprecedented convenience and opportunities for businesses and consumers. However, the rapid growth and transformation in this field also present new challenges to the education system. In order to meet the demand in the e-commerce sector for versatile professionals with outstanding innovative capabilities, e-commerce major education needs continuous adjustments and improvements. By continually refining the educational system and nurturing innovative skills, we are confident in producing e-commerce professionals with comprehensive knowledge and innovative thinking, making contributions to the industry's sustainable development and innovation.

2. Analysis of the Current Status of the E-commerce Major Educational System

2.1. Traditional E-commerce Courses

This course typically covers the core concepts, historical development, and industry trends of e-commerce. Students will learn the definition, background, and evolution of e-commerce, understanding its impact on traditional business models and why it is crucial. Additionally, the course usually introduces fundamental terms and concepts of e-commerce, such as B2B, B2C, C2C transactions, and more. This course helps students establish a fundamental understanding of e-commerce, laying the groundwork for more in-depth studies.[1] E-commerce involves numerous legal and ethical issues, such as privacy rights, data security, consumer rights, and online advertising. The focus of this course is to educate students on identifying, comprehending, and adhering to relevant laws and regulations related to e-commerce, as well as the ability to address ethical

challenges. Students will learn about legal issues in e-commerce, including e-commerce contracts, intellectual property rights, online consumer protection, and ethical concerns such as data privacy and ethical advertising. The goal of this course is to ensure that e-commerce professionals comply with legal and ethical standards in their business endeavors. This course aims to cultivate students' mastery of e-commerce marketing strategies and skills. Students will learn how to develop and execute online marketing plans, including search engine optimization (SEO), social media marketing, email marketing, and content strategies. Additionally, they will gain insights into key areas such as online advertising, online brand building, and consumer behavior analysis. E-commerce marketing courses emphasize marketing skills in the digital market environment to help students stand out in the competitive e-commerce field.[2]

2.2. Latest Trends and Developments

Blockchain is a decentralized distributed ledger technology that can be used to securely record transactions and assets. In e-commerce, blockchain technology can enhance transparency, security, and traceability of transactions. Students need to understand how to apply blockchain technology to areas such as supply chain management, payment processing, and smart contracts to adapt to this trend. Artificial intelligence plays a significant role in e-commerce, including automated customer service, personalized recommendations, and product searches. Students need to learn how to use machine learning algorithms and natural language processing techniques to provide better user experiences and improve sales efficiency. Big data analytics in e-commerce is used to understand consumer behavior, market trends, and inventory management. Students need to learn how to collect, process, and analyze big data to make data-driven business decisions. Social media has become a vital part of e-commerce, with selling and advertising through social platforms being a common business model. Students need to understand how to establish a brand image on social media, interact with customers, and utilize social media for marketing. [3]

2.3. Practical Courses

These courses typically require students to analyze real e-commerce cases, identify key issues, and propose solutions. Through real-world cases, students can integrate classroom learning with actual business challenges, cultivating analytical and decision-making skills. These practical courses enable students to understand the application of e-commerce principles in real-world scenarios. Students can engage in various practical projects such as creating e-commerce websites, devising online advertising campaigns, conducting market research, or developing mobile applications. These projects require students to integrate classroom learning with practical work, thereby fostering problem-solving, innovation, and collaboration skills. Practical projects also help students build their portfolios, enhancing their competitiveness in the job market. Some e-commerce courses employ simulated business games or experiments to replicate real market environments. Students can play the role of operators in these environments, formulating strategies, making decisions, and observing outcomes. This helps students understand market dynamics, competitive strategies, and risk management.[4] Schools can collaborate with e-commerce companies to provide internship opportunities for students. Internships give students the chance to gain firsthand experience in the e-commerce industry, establish professional connections, and acquire practical work experience. This is crucial for post-graduation employment, as employers often favor candidates with internship experience.

3. Optimization Strategies for the E-commerce Major Educational System

3.1. Providing Industry-Academia Collaboration Opportunities

Schools should actively establish partnerships with companies and organizations in the e-commerce industry. This can be achieved through connections with industry associations, businesses, startups, and small and medium-sized enterprises. Building partnerships requires time and effort, but it can provide students with opportunities for real-world experience. Collaborate with e-commerce companies to offer internship opportunities for students. Students can apply their knowledge and skills in real work environments, gaining insights into the industry's internal operations. This practical experience not only enhances students' career readiness but also helps them better understand the requirements and expectations of a career in e-commerce. Collaborate with industry partners to provide students with opportunities to participate in real projects. These projects can be contractual projects with companies or projects jointly planned by the school and industry partners. By engaging in real projects, students can apply the knowledge they have learned in the classroom to solve real problems and enhance their practical skills. Establish a mentorship system that allows students to connect with professionals in the e-commerce industry. Mentors can provide guidance, advice, and career direction for students, helping them better plan their careers. Mentors can also share their experiences and insights, offering valuable career advice to students. [5]

3.2. Promoting Interdisciplinary Education

Integrate business studies with e-commerce to help students understand principles of business management, such as marketing, finance, strategic management, and supply chain management, and how they apply in an e-commerce environment. This helps students understand how e-commerce decisions impact the overall strategies of organizations while fostering their business insights. E-commerce majors require knowledge in computer science and information technology to understand the development, maintenance, and security of e-commerce systems. This includes skills such as website development, database management, network security, and mobile application development. Interdisciplinary integration helps students combine these technical skills with e-commerce practices, allowing them to better grasp the impact of technology on business. Big data analytics plays a significant role in e-commerce. Students need to learn how to collect, process, and analyze big data to support business decisions. Interdisciplinary integration can combine data science with e-commerce knowledge, enabling students to apply data analytics skills more effectively. Encourage students to participate in interdisciplinary competitions and practical projects, such as business plan competitions, to motivate them to integrate knowledge from multiple fields to solve real problems. Interdisciplinary education not only helps students gain more comprehensive knowledge and skills in e-commerce but also nurtures their abilities to solve complex problems, innovate, and collaborate across disciplines. This prepares them to adapt to the rapid development and continuous changes in the e-commerce industry.

3.3. Strengthening Technical Training

Design a course that focuses on teaching students how to create and maintain e-commerce websites. This includes front-end development, which involves website user interface design and user experience, as well as back-end development, covering website functionality, database integration, and performance optimization. Students should learn to use popular website development tools and frameworks such as HTML/CSS, JavaScript, React, Node.js, etc. Emphasize students' understanding and practical experience with electronic payment systems. This includes researching different types

of payment gateways, third-party payment integration, and payment security. Students should be able to configure and manage online payment systems to ensure security and reliability. E-commerce relies on databases to store product information, customer data, and order details. Therefore, students need to learn the fundamental principles of database management, including database design, query optimization, backup, and recovery. They should also be familiar with various types of database systems such as MySQL, MongoDB, PostgreSQL, etc. Security is crucial for e-commerce. Students need to understand how to protect online transactions, customer data, and company information. The curriculum should include principles of network security, authentication and authorization, data encryption, firewall configuration, and strategies for dealing with cyberattacks. Students should also be knowledgeable about data privacy protection measures that comply with legal regulations.

4. Key Elements in E-commerce Talent Development

4.1. Curriculum Design and Content Updates

To cultivate e-commerce professionals with comprehensive knowledge, the curriculum should cover multiple areas. Students should study fields such as market research, marketing strategy, brand management, and digital marketing to understand how to attract and retain customers. The curriculum should include technical aspects such as website development, database management, electronic payment systems, and mobile application development, enabling students to build and maintain e-commerce systems. Students need to understand e-commerce regulations, intellectual property rights, privacy protection, and ethical issues to ensure that their business operations are legal and ethical. Students should learn strategic planning, supply chain management, risk management, and business development strategies to make strategic decisions for organizations' success. Foster students' skills in data analysis and business intelligence to utilize big data for decision-making and improving business performance. Technology and trends in the e-commerce field are constantly evolving, including artificial intelligence, blockchain, virtual reality, etc. Educators and curriculum designers should closely monitor the latest trends and promptly incorporate them into the curriculum. Textbooks and case studies should be based on real-world situations, reflecting the challenges and opportunities in today's e-commerce industry. Inviting industry experts to share their experiences and insights helps students gain a better understanding of the industry's actual conditions. Curriculum design should have some flexibility to allow adjustments based on changes in the industry, which may include offering elective courses on specific topics or modules focusing on emerging technologies.

4.2. Learning Resources and Technical Support

Schools should provide state-of-the-art e-commerce labs equipped with high-performance computers, network devices, and development tools. These labs can be used for students' practical learning activities such as programming, website development, and database management. To support students' practical learning, virtual lab environments can be provided, allowing students to remotely access and operate lab equipment and software tools. This is especially important for students engaged in remote or online learning. The school's electronic library should offer a wide range of electronic resources, including academic journals, e-books, industry reports, and market research. These resources can be used for students' research and project work. Students need access to various databases to support their data analysis and research, including market data, consumer behavior data, and business data. Providing technical support help desks allows students to seek assistance with hardware and software issues. Additionally, offering online support helps resolve technical challenges students may encounter during remote learning or project work. Providing regular technical training and workshops helps students become proficient in using e-commerce tools and software. These

training sessions can also cover skills related to network security and data analysis. Schools should provide the necessary software licenses for students to practice and develop projects on their personal computers. This includes website development tools, database management systems, and analytical software.

4.3. Cultivating Holistic Skills

Introduce team projects that require students to collaborate in groups to complete tasks. This will help students improve their communication and collaboration skills while simulating collaborative situations in real work environments. Encourage students to participate in activities such as public speaking, presentations, and debates to enhance their public speaking and communication skills. This is crucial for effective communication with clients, colleagues, and supervisors. Design course modules that require students to analyze real-world cases and propose solutions. This will cultivate students' problem-solving abilities and critical thinking. Encourage students to engage in innovative projects, allowing them to propose new e-commerce business models, product ideas, or services. This will foster their innovation and entrepreneurial spirit. Rotate leadership roles in team projects to help students exercise leadership and team management skills. This can enhance their flexibility in leadership and collaboration. Introduce cases involving leadership and decision-making, requiring students to make wise decisions in complex situations. This will develop their decision-making abilities and risk management skills. Offer courses in holistic skills development, covering communication, innovation, leadership, problem-solving, and teamwork. These courses can provide students with interdisciplinary skill development, making them better prepared to address challenges in the e-commerce field. Utilize real-world scenario simulations, allowing students to apply holistic skills in authentic situations. This can be achieved through role-playing, simulated business meetings, and real case studies. Encourage students to set personal development goals, including improving communication skills, fostering innovative thinking, etc. Schools can provide guidance and resources to help students formulate and implement these plans.

5. Innovative Talent Development Strategies

5.1. Practice-Oriented Curriculum Design

The curriculum can include the analysis of real e-commerce cases, requiring students to identify issues, propose solutions, and discuss the reasons for the success or failure of the cases. Through case studies, students can learn about the challenges and approaches in real business scenarios. Collaborate with companies in the e-commerce industry to jointly develop case study projects. These cases can be based on actual industry challenges, providing students with deeper insights. Schools can establish partnerships with e-commerce enterprises to provide students with real project opportunities. Students can participate in these projects, solve real-world problems, and gain practical experience. Design simulated business projects that require students to play the roles of managers or team members in e-commerce enterprises, formulate strategies, make decisions, and observe the results in a virtual market. Such simulations help students understand the complexity of business operations. Arrange for student visits to e-commerce companies to learn about their operational models, technological infrastructure, and market strategies. These visits allow students to get up close and personal with industry practices. Invite professionals from the e-commerce field to campus to hold lectures and exchanges. They can share their experiences and insights, discussing the latest trends and issues with students.

5.2. Innovation Thinking Training

Innovation workshops are regular activities designed to stimulate students' innovative thinking, foster their creative abilities, and help them solve complex problems. These workshops can include the following elements: **Creative Thinking:** Students receive creative thinking training, learning to break conventional thinking patterns and propose novel viewpoints and solutions. **Problem Solving:** Students engage in real-case problem-solving and simulation activities, learning to systematically analyze problems, formulate solutions, and assess their feasibility. **Design Thinking:** Students are guided to understand user needs and design user-centered solutions, a key to success in e-commerce. **Collaboration and Innovation:** Workshops can be team-based, encouraging students to explore innovative ideas and collaborate to solve problems. **Feedback and Improvement:** Students learn how to accept feedback and use it to improve their innovative ideas. This helps cultivate resilience and adaptability in students. **Innovation Challenges:** Innovation challenges are competitive activities designed to inspire students' innovative spirit. These challenges can be team projects or individual competitions, encouraging students to think of new ways to address real-world problems. **Problem-Oriented:** Students face specific challenges or problems, such as improving the user experience of an e-commerce platform or addressing new competitors in the e-commerce market.

5.3. Innovation Communities and Networks

Innovation communities and establishing connections with the e-commerce industry are crucial components of cultivating innovative e-commerce talent. Students can be placed in environments filled with inspiration and resources, encouraging them to actively participate in innovative activities and interact with industry professionals. Schools can create student innovation communities aimed at bringing together students interested in innovation. These communities can be on-campus or online, providing a platform for students to share their innovative ideas, project experiences, and resources. The communities can regularly host innovation events, such as creative competitions, innovation salons, and entrepreneurship sharing sessions. These activities facilitate communication and collaboration among students and provide opportunities for them to showcase and test their innovative ideas. Community members can share information about innovative tools, materials, and books to help other members develop their innovation projects. Schools can invite professionals from the e-commerce industry to serve as mentors, providing students with personal guidance and innovative advice. Additionally, hosting regular industry expert lectures allows students to gain insights from successful entrepreneurs and innovators. Schools should establish close connections with e-commerce companies, arranging field visits and internships for students. This gives students the opportunity to gain firsthand experience in industry practices and learn about the latest innovation trends. Collaborate with e-commerce companies on projects and invite students to participate. Such collaborative projects provide students with opportunities to work with industry professionals in solving real-world problems.

6. Conclusion

E-commerce has become the core of the modern business world, and the demand for professionals in this field continues to grow. To meet this demand and adapt to the evolving nature of the e-commerce industry, the education system for e-commerce majors must undergo continuous improvement and innovation. The enhancement and innovation of the e-commerce education system are crucial for nurturing innovative e-commerce talent. By integrating the latest trends, practice-oriented teaching, and industry connections, educational institutions can provide students with a more enriching learning experience, equipping them with the capabilities to address the challenges in the

e-commerce field. These innovative educational strategies will contribute to driving progress in the e-commerce industry, creating more opportunities for students' career development and the industry's sustainable growth.

References

- [1] Le, J. J. (2022). *Research on the Construction of Practical Teaching System for Cultivating Talents in Higher Vocational Colleges' E-commerce Majors*. *Modern Vocational Education*, (22), 76-78.
- [2] Zhao, R., & Shui, J. M. (2021). *Research on the Innovative Talent Training System of E-commerce Majors in Applied Undergraduate Colleges Based on New Enterprise Demands*. *Marketing World*, (31), 163-166.
- [3] Luo, J. H. (2011). *Exploration on the Construction of the Practical Teaching System for E-commerce Majors from the Perspective of Innovative and Entrepreneurial Talents*. *Science & Education Digest (Biweekly)*, (31), 65-66.
- [4] Peng, J. H., & Zou, D. S. (2007). *Research on the Innovative Talent Training System and Curriculum System of E-commerce Majors in Independent Colleges*. *Higher Agricultural Education*, (11), 50-52.
- [5] Jin, Y. A. (2006). *Constructing a Reasonable Teaching System for E-commerce Majors—Looking at the Cultivation of E-commerce Talent from the Perspective of Student Employment*. *Journal of Hubei University of Economics (Humanities and Social Sciences Edition)*, (08), 155-156.