

Developing Strategic Guidelines of E-Commerce Instruction and Management for Beijing Open University

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Abstract: *The research objectives were: 1) to investigate problems and needs of e-commerce instruction and management for Beijing Open University, 2) To analyze strengths and weaknesses of e-commerce instruction and management for Beijing Open University, and 3) to develop strategic guidelines for e-commerce instruction and management. The sample size of 222 students was determined using the Yamane formula to ensure representativeness within stratified random sampling. The 10 teachers and 10 administrators were obtained through purposive sampling at Beijing Open University. The research instruments were questionnaires and questions for focus group discussion. This study employed a mixed-methods approach combining quantitative and qualitative research to identify gaps in e-commerce education and developed strategic guidelines to address these challenges. The content analysis method, percentage, mean, and standard deviation were used to analyze the collected data.*

The results show that: 1) most respondents rated the problems and needs of e-commerce instruction and management for Beijing Open University at a high level. 2) The weaknesses of e-commerce instruction and management included outdated textbooks and difficulties integrating new technologies with legacy systems, resulting in operational disruptions and inefficiencies. 3) The strategic guidelines of e-commerce instruction and management comprise five strategies: Managing E-commerce Instruction; Skills for E-commerce, Curriculum design and development, Learning Resources, and Technology.

Keywords: Strategic Guidelines, E-Commerce, Instruction and Management

Introduction

As e-commerce reshapes global business practice, educational institutions must adapt their teaching strategies to meet industry demands, especially in developing practical skills. However, a reoccurring issue in higher education is the disconnect between theoretical comprehension and practical application (Li, 2008, pp. 65-66). Many institutions focus a large deal of focus on teaching e-commerce theories rather than on developing practical abilities, which makes students unprepared to deal with e-commerce situations that happen in the real world (Li, 2012, pp. 15-16). There is typically a gap between industry expectations and educational achievement as while students may understand theoretical topics, they frequently struggle with practical applications.

According to research, it is essential to include practical components in e-commerce training. For instance, Li Yan (2022, p. 1) highlights the disparity between industry demands and educational possibilities in Internet advertising and recommends that higher education institutions enhance their methods, curriculum, and evaluation systems. Fewer e-commerce institutions integrate these strategies effectively; however, scholars emphasize the significance of students practicing real-life scenarios in developing practical skills (Pang, et al., 2024, pp. 1-27).

The rapid rise of e-business operations has increased the demand for professionals who can apply academic knowledge to real business environments. Unfortunately, many universities produce graduates who lack these critical skills and struggle to meet employment expectations. Because of this, the guidelines for teaching and managing e-commerce can help close the gap. Using operational concepts, standards of excellence, and real-world examples, the guidelines aim to educate students with the practical skills needed to thrive in the field. As is well known, e-commerce is an interdisciplinary field involving network technology, global trade, advertising, and other areas. Because of the breadth and complexity of e-commerce education, teaching methods must emphasize both the development of practical skills and the transfer of knowledge. By integrating theory and practice, colleges and universities may better prepare students to operate businesses using modern technologies like the Internet. As a result, students will have more marketability. This approach will also enhance students' professionalism, innovation, and critical thinking skills, all of which are essential in today's e-commerce.

Institutions of higher education must adapt their teaching methods to the expanding e-commerce marketplace. Universities can help students succeed in the new economy while contributing to its continued growth by emphasizing the practical application of academic knowledge and developing the skills needed to meet business expectations (Zheng, 2005, p. 3).

In conclusion, the research and exploration of appropriate teaching models is a requirement of social development, and the practical application of classroom e-commerce teaching can help students efficiently master the key knowledge and skills of "E-commerce", while cultivating the basic practical skills required to be e-commerce talents, possessing the critical thinking and expression skills required for excellent e-commerce talents. At the same time, students' professional literacy, core literacy, and innovation ability can also be cultivated to a certain extent.

Literature Review

1. E-commerce Instruction and Management

With the rise of the concept of e-commerce instruction and management, more and more research is focusing on how to address the requirements of diverse students through developing strategic guidelines of e-commerce instruction and management. The development of e-commerce instruction and management concepts has always been one of the important fields of e-commerce research. Kumar and Sharma (2021, pp. 23-40) studied traditional management and e-commerce, structured through stages like initiation, planning, execution, control, and closure. Smith and Brown (2023, pp. 101-115) conducted a comprehensive exploration of the field emphasizing website management, digital marketing, supply chain operations, and customer relationship management (CRM),

supported by data analytics and cybersecurity measures.

However, despite the tremendous transformative power demonstrated by e-commerce management, it still faces rapidly iterating technological challenges, growing cybersecurity threats, and increasing consumer expectations that follow it, as Riley and Wong's (2023, pp. 77-90) analysis in 2023 reveals. It is therefore particularly important to adopt an agile and innovation-driven methodology, not only as a direct response to the challenges but also as an inherent requirement for the industry's continued growth.

From the perspective of education, the field of e-commerce education still has room for improvement in terms of curriculum flexibility, professional growth of teachers, and innovation of practical teaching methods, especially in the key area of vocational education. The traditional curriculum system tends to lag behind the rapid pace of development of the e-commerce industry, while the practical teaching system faces a lack of modernized resources and insufficient industry cooperation, as pointed out in Ma's study in 2008 and Huang's study in 2011. Fortunately, some innovative teaching strategies, such as the incorporation of the Outcome-Based Education (OBE) model and the construction of a human-centered teaching framework, have shown great potential in enhancing students' professional competence and practical skills, as verified by Liu and Shi's studies in 2021, respectively.

2. Learning Resources

In the process of education and management of e-commerce, the effective integration of learning resources is a key bridge to success. Starting from basic resources, textbooks, and e-books are like the cornerstones of knowledge, which systematically introduce the core theories of e-commerce, marketing strategies, sales techniques, and management methods. For example, works such as *E-Commerce: Business Models and Market Practices* not only analyze a variety of business models in detail but also closely tie in with real-world applications, providing learners with invaluable industry insights (Li & Wang, 2019).

Additionally, interactive simulations, video tutorials, blog posts, software, and apps such as Shopify training, YouTube tutorials, Hootsuite, and other tools not only enhance learners' hands-on skills but also allow them to hone their skills in a safe environment. Hands-on projects and internships, such as creating an online store or corporate internships, are even more critical steps in translating theoretical knowledge into practical practice. Academic journals in libraries and archives provide in-depth research in the field of e-commerce, helping learners maintain a cutting-edge perspective on the industry. By integrating these resources, individuals and organizations can more effectively master e-commerce knowledge and enhance their competitiveness.

3. Curriculum Design

The key to designing an e-commerce teaching and management course is to impart theoretical knowledge and practical skills in a structured manner to ensure that students are competitive in the digital marketplace (Zhong, 2024, pp. 163-168). Courses need to have clear objectives covering e-commerce fundamentals, digital marketing strategies, and operation management, and incorporate practical experience to develop a full range of skills from basic knowledge to platform management, data analysis, and marketing campaign planning (Li & Wang, 2019). To design an e-commerce curriculum, Menascé (2000, pp. 82-85) proposed a model of e-commerce curriculum that should be

balanced across the levels of business, customer behavior, and IT-resources. Studies highlight the importance of integrating theoretical and practical knowledge. Ferwerda, et al. (2024) stress user-centered systems, while Güngör and Çadırcı (2023, pp. 65-92) focus on consumer-centric digital marketing. Digital payment systems also influence learning strategies and technology-supported personalized learning enhances engagement.

Therefore, the curriculum design should emphasize both theory and practice to meet individualized needs through the core areas of learning such as introductory modules, digital marketing, and web development, combined with practical projects, case studies, and elective modules.

In terms of teaching strategies, blended learning combines online and face-to-face teaching to enhance interactivity; group discussion, problem-solving, and project-based learning promote in-depth learning (Farooq, et al., 2022, pp. 60341-60361). The assessment system takes into account both the process and the result to ensure that students can improve through continuous feedback and practical assessment to check their ability to apply in real scenarios. The curriculum needs to be continuously optimized and adjusted according to the feedback from students and the industry, keeping up with the technology and industry trends to ensure that what students learn is in sync with the market demand, and to lay a solid foundation for success in the digital market.

4. E-commerce Skills

Driven by globalization and technological advances, the competitiveness of digital firms and the employability of the workforce are increasingly dependent on the skills of employees (European Commission, 2017). COVID-19 accelerates remote working and digital transformation, and the rise of Industry 4.0 & Marketing 4.0 requires e-commerce talent with higher skills (Kovács, 2021, pp. 25-36). Big data, internationalization, and digital proficiency have become important factors influencing employees' digital competence (Thiebaut, et al. 2019, pp. 191-219; Peng, et al., 2021, pp. 1148-1167).

The labor market is actively adapting to these changes, and teaching concepts and curriculum design are critical to enhancing graduate employability (Amoako, 2022, pp. 75-94). Soft skills, especially meta-skills such as self-awareness, creative problem-solving, and resilience, are seen as key to improving employability (Barkas, et al., 2021, pp. 545-561). New technologies in e-commerce are both a challenge and an incentive for employers and employees, especially millennials, who desire flexible, innovative work environments and leadership styles that support skill development.

5. Technology

According to the systematic literature review of e-commerce implementation research (Paris, et al., 2016, pp. 422-438), e-commerce adoption research is based on two main frameworks: diffusion of innovations (DOI) and technology acceptance model (TAM). The DOI framework emphasizes the characteristics of the innovation itself, such as comparative advantage, compatibility, sophistication, trial ability, and observability that determine its adoption. The TAM, on the other hand, focuses on user perceptions, particularly perceived usefulness (the extent to which it improves job performance) and perceived ease of use (the degree of difficulty in using it). However, TAM extends its predictive power by introducing additional variables (e.g., TAM2, TAM3, and UTAUT) to account for the effects of the external environment.

DOI emphasizes that innovation characteristics determine adoption, while TAM focuses on user perceptions, especially perceived usefulness and ease of use. However, both focus on technological perspectives, ignoring the influence of organizational and environmental factors. Therefore, the Technology-Organization-Environment (TOE) framework has been widely used to explain e-business adoption intentions from three perspectives: technological, organizational, and environmental, and has become a useful model for understanding and interpreting user behavior in technology implementation.

Conclusion

The e-commerce teaching and management literature emphasizes the need for a comprehensive and adaptable approach to meet the challenges of the digital environment. While frameworks such as DOI, TAM, and TOE provide important insights, there are still gaps in curriculum flexibility, teacher training, and industry collaboration. Educational practices should incorporate blended learning, hands-on experience, and advanced skills (e.g., data analytics and CRM) to maintain alignment with market needs. Enhanced collaboration between academia and industry, leveraging modern resources, is critical to developing e-business talent that is attuned to the complexities of the global digital economy.

Research Objectives

1. To investigate problems and needs of e-commerce instruction and management for Beijing Open University.
2. To analyze the strengths and weaknesses of e-commerce instruction and management for Beijing Open University.
3. To develop strategic guidelines for e-commerce instruction and management for practical use by teachers, administrators, and students.

Research Methodology

Research Design

This study adopted a mixed-methods approach, combining quantitative and qualitative research methods to comprehensively address the multifaceted research problem and highlight their unique contributions. The mixed-methods approach was chosen to integrate statistics trends from quantitative data with nuanced insights from qualitative focus groups, providing a holistic view of the research problem.

Population and Sample Groups

Population

This research was conducted at Beijing Open University. The population in this research project was divided into 3 groups; namely, 1) 500 students, 2) 10 teachers, and 3) 10 administrators.

Sample Groups

In this research project, the sample groups were divided into 3 groups; namely, 1) 222 students, obtained through the Yamane formula (Yamane, 1973), and stratified random sampling technique 2) 10 teachers, and 3) 10 administrators, derived from purposive sampling.

Research Instruments

1. Questionnaires

In this research project, questionnaires were employed for the data collection. The questionnaires were divided into 3 sets; namely, 1) the students set 2) the teachers set, and 3) the administrators set. The questionnaire was divided into 3 parts: 1) general information, 2) problems of e-commerce instruction and management, and 3) needs of e-commerce instruction and management for Beijing Open University. For this part, the questionnaire was evaluated for the Index of item objective congruence scores (IOC scores) by the three specialists. Each question ranged between the IOC values of 0.67-1.00. The reliability of the questionnaire was tested using Cronbach's Alpha, resulting in a coefficient of 0.84, indicating high internal consistency (Cronbach, 1984).

2. Questions for focus group discussion meetings.

1) Questions for analyzing strengths and weaknesses of e-commerce instruction and management. The participants were 5 administrators, 5 teachers, and 3 specialists.

2) Questions and forms for evaluating the suitability and correctness of the strategic guidelines. The developed strategic guidelines were evaluated for correctness and suitability by the three specialists who were invited to the focus group discussion meeting.

Limitations of the Study

This study is limited to the context of Beijing Open University and might not be considered to be generalized to other educational institutions without similar demographic and institutional characteristics.

Data Analysis

Quantitative data were analyzed using descriptive statistics, while qualitative data underwent thematic analysis to identify recurring patterns and insights. The five-point Likert rating scale was used to evaluate the respondents' problems and needs of e-commerce instruction and management at Beijing Open University.

The criteria and defined in the range of the mean scores as follows:

4.51-5.00 = the highest level of problems and needs

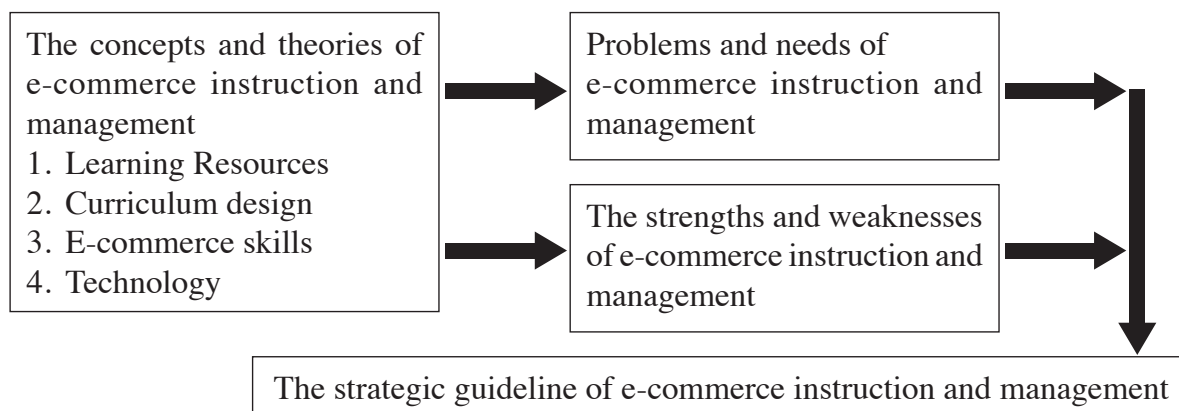
3.51-4.50 = the high level of problems and needs

2.51-3.50 = the moderate level of problems and needs

1.51-2.50 = the low level of problems and needs

1.00-1.50 = the lowest level of problems and needs

Conceptual Framework



Research Results

1. Problems of E-commerce Instruction and Management

Table 1 Problems of e-commerce instruction and management for students, teachers, and administrators at Beijing Open University

Items	Students			Teachers			Administrators		
	\bar{X}	S.D.	Level	μ	σ	Level	μ	σ	Level
Learning Resources	4.51	0.29	Highest	4.40	0.43	High	4.33	0.38	High
Curriculum Design	4.42	0.32	High	4.38	0.36	High	4.39	0.33	High
E-commerce Skills	4.37	0.33	High	4.31	0.29	High	4.31	0.29	High
Technology	4.31	0.28	High	4.34	0.30	High	4.35	0.31	High
Total	4.40	0.31	High	4.36	0.35	High	4.35	0.33	High

According to Table 1, most of students, teachers, and administrators rate the problems of instruction and management e-commerce at a high level. Beijing Open University faces four major problems: teaching resources, curriculum design, e-commerce skills, and technology.

First of all, although the university has abundant resources, it is difficult for teachers and students to find high-quality teaching materials to use. Traditional textbooks no longer reflect the changes in the higher education industry. Secondly, the curriculum is not in line with the rapidly developing e-commerce field and lacks practical opportunities. Teachers' lack of e-commerce industry experience and very limited interaction between students and teachers hinder students' e-commerce skills development. Due to the continuous advancement of science and technology, most of the data security and privacy are also threatened. Therefore, school teachers need to improve their proficiency in e-commerce tools. Improved resources, updated curricula, hands-on learning, and enhanced technical support are needed to enhance student learning outcomes.

2. Needs of E-commerce Instruction and Management

Table 2 Needs of e-commerce instruction and management for students, teachers, and administrators at Beijing Open University

Items	Students			Teachers			Administrators		
	\bar{X}	S.D.	Level	μ	σ	Level	μ	σ	Level
Learning Resources	4.45	0.28	High	4.42	0.42	High	4.37	0.32	High
Curriculum Design	4.33	0.35	High	4.38	0.37	High	4.38	0.37	High
E-commerce Skills	4.34	0.39	High	4.28	0.34	High	4.28	0.34	High
Technology	4.38	0.37	High	4.35	0.29	High	4.35	0.29	High
Total	4.38	0.35	High	4.36	0.36	High	4.35	0.33	High

According to Table 2, most of the students, teachers, and administrators rate the need of e-commerce instruction and management at a high level. Beijing Open University mainly concentrated the need of e-commerce instruction and management in four areas: learning resources, curriculum design, e-commerce skills, and technology.

From the data, although there are abundant resources, there is still a need to screen quality teaching materials and update textbooks to keep up with changes in the industry. The materials chosen must be in line with the global marketplace, and both teachers and students must be better prepared for e-commerce skills in the classroom, providing students with more practice opportunities. As science and technology continue to advance, the updating of materials is essential. In addition, teachers and students must pay more attention to data security and privacy. In conclusion, updating teaching materials, improving the quality of resources, increasing practical opportunities, and strengthening technical support are the keys to improving e-commerce education.

3. Results of Strengths and Weaknesses of E-commerce Instruction and Management

According to the opinions and ideas of 11 participants who were purposively selected based on their roles and expertise in e-commerce education (5 administrators, 3 teachers, and 3 specialists) in a focus group discussion meeting, regarding the strengths and weaknesses of e-commerce management, they mentioned the problem of students in the learning steps of e-commerce management, how to improve students' language skills, the difference instruction e-commerce management, and the resources beneficial in e-commerce teaching. To maintain the level of strengths and get rid of weaknesses, then we have to develop strategic guidelines for e-commerce management teaching, the data illustration of strengths and weaknesses is presented below.

Strengths and Weaknesses of e-commerce instruction and management:

Strengths:

By interviewing and summarizing teachers, administrators, and specialists, the strengths and weaknesses of e-commerce management are as follows:

Firstly, the e-commerce course closely meets the needs of the industry, providing the latest knowledge and practical applications through case studies, and combining expert seminars, guest lectures, and various industry tools and textbooks as teaching resources. In the classroom, teachers actively adopt interactive teaching methods such as role-playing and group projects, coupled with effective feedback mechanisms, to effectively stimulate students' interest in learning and improve their knowledge and skills.

Secondly, the e-commerce strategic plan closely integrated with the business strategic objectives, as well as the optimized allocation of capital flow, human resources, and advanced technology, provide a solid foundation for the project. In terms of operations, the dual simplification of automation tools and processes has significantly improved productivity, while the seamless integration of cutting-edge technologies such as artificial intelligence, machine learning algorithms, and big data analysis has brought higher intelligence and efficiency to the e-commerce field, leading the industry towards a new era in the future.

Finally, the expansion of infrastructure and in-depth data analysis not only adapt to market changes but also reveal consumer behavior and industry trends, injecting human intelligence and forward thinking into strategic decision-making, achieving a dual improvement in work efficiency and decision-making accuracy.

Weaknesses:

Beijing Open University still faces multiple challenges in the field of e-commerce education, including the lagging of course content, which is particularly prominent.

Firstly, textbooks are outdated and have not been updated promptly. Some textbooks have not covered emerging topics such as digital marketing, network security, and data analysis promptly.

Secondly, traditional teaching models still exist, and most teachers are still using traditional teaching models, which dominate the school and lack the innovative thinking and flexibility needed in the digital age. To adapt to this constantly changing digital world, schools urgently need to develop an e-commerce education strategic plan that not only includes a long-term educational vision and clear teaching objectives but also proposes practical implementation strategies. The school's goal is to cultivate students' innovative thinking and practical abilities.

Thirdly, e-commerce strategy also faces multiple challenges, such as lagging strategic iteration, blind spots in risk management, bottlenecks and inefficiencies in operational processes, and obstacles to technological innovation. The slow iteration of strategies, inadequate risk management, unsmooth internal workflows, and challenges in implementing new technology integration may all become stumbling blocks to the development of schools.

Therefore, when formulating e-commerce standards, Beijing Open University should focus on comprehensive curriculum development, application of innovative teaching methods, deepening industry cooperation, promotion of interdisciplinary learning, cultivation of teaching staff, strengthening entrepreneurship education, and ensuring legal compliance. Guided by human thinking, it should comprehensively respond to challenges, promote the sustainable development of e-commerce education, ensure that the school can adapt to the rapidly changing business environment, and cultivate e-commerce talents with foresight and practical abilities.

4. Strategic Guidelines of E-commerce Instruction and Management

The Strategic Guidelines of E-Commerce Instruction and Management for Beijing Open University comprised five strategies. All of the five strategies namely: 1) Managing E-commerce Instruction 2) Skills for e-commerce 3) Curriculum design and development 4) Learning resources, and 5) Technology. These strategies are designed to address specific gaps in e-commerce education, including outdated curricula and a lack of hands-on learning opportunities. Each core component of the strategy is skillfully integrated with practical exercises, aiming to ignite the spark of innovative thinking and help students transform the theoretical knowledge of e-commerce instruction and management into the ability to solve practical problems. These five technical essences have been carefully examined and rigorously evaluated by three industry authorities, and the accuracy and appropriateness of the content have been firmly guaranteed. The results of the evaluation show that the faculty and staff of Beijing Open University highly agree with these e-commerce guidance and management standards and think they are very relevant. Therefore, e-commerce lecturers are expected to further strengthen their professional quality and lead students to ride the wave of digital business.

1) Learning Resources

The quality and quantity of learning resources have a profound impact on the effectiveness of e-commerce education. Although Beijing Open University is rich in resources, teachers and students still face challenges in selecting high-quality materials, especially teaching materials that lag behind the development of the industry. To this end, universities should assemble a team of experts to regularly select and recommend resources that meet industry standards to ensure quality and diversity and implement annual updates of course content to keep up with industry trends.

2) Curriculum Design

The analysis reveals that the e-commerce course of Beijing Open University fails to keep pace with the ever-changing business rules and the global market in terms of practical projects and course iterations. To this end, there is an urgent need for universities to build a flexible and responsive mechanism to ensure that course materials are updated in real-time with legal and industry developments and technological advances. This initiative aims to equip students with the most cutting-edge ideas and technologies to tackle and solve real-world challenges in the field of e-commerce, thereby unlocking the infinite potential of human ingenuity in learning and practice.

3) E-Commerce Skills

According to the survey, there are significant shortcomings in the e-commerce curriculum, and students' abilities in core areas such as data analysis, digital marketing, and customer relationship management need to be improved urgently. To bridge this gap, universities must strengthen their hands-on education, especially in digital marketing, covering paid advertising strategies, social media marketing techniques, and search engine optimization (SEO) essentials to drive both platform traffic and conversion rates. At the same time, we will deepen data analysis training, focusing on tools such as Tableau and Google Analytics, to cultivate students' ability to gain insight into customer behavior and guide corporate decision-making, laying a solid foundation for improving the company's success rate.

In addition, customer relationship management (CRM) is another key area that requires practical exercises to help students master the CRM system, improve their customer data management skills, and innovate customized marketing campaigns. In order to stimulate a deeper level of thinking and knowledge absorption, universities should also implement interactive modes such as group discussions, personalized tutoring, and online Q&A to build a bridge for students to ask questions and explore, and promote a deep understanding and flexible application of course content.

4) Technology

This paper highlights that the rapid development of e-commerce technology makes curriculum updates challenging and that it is important to deepen data security and privacy education. To this end, cutting-edge courses such as big data, blockchain, and AI should be set up to improve students' technical strength and solve complex e-commerce problems. With the growth of e-commerce, data protection is in the spotlight and needs to be integrated into theoretical and practical training. At the same time, assistance is provided to students with technical difficulties to ensure access to resources and internet connections.

Discussion

1. The problems of e-commerce instruction and management at Beijing Open University for students, teachers, and administrators were at a “High” level.

1.1 The problems of e-commerce instruction and management in the opinions of students

Most of the students had a positive opinion of the e-commerce teaching and management of Beijing Open University but also pointed out several key issues. First of all, e-commerce resources are abundant but it is difficult to select high-quality learning materials, which greatly affects the teaching effect and management efficiency. Secondly, the lack of practical e-commerce projects and students’ practical opportunities is widely regarded as the core factor restricting the effectiveness of teaching. In addition, students reported that the quality of e-commerce teaching materials and reference materials used in the course was uneven, which also had a significant impact on the quality of teaching.

Specifically, despite the abundance of e-commerce resources, identifying and selecting high-quality learning materials has become a major challenge. (Wang & Kim, 2023, p.3). At the same time, the lack of hands-on projects and hands-on opportunities seriously hinders students’ in-depth understanding and application of e-commerce knowledge (Zhang, 2019, pp. 123-145). In addition, students have different evaluations of the quality of existing e-commerce teaching materials and reference materials but generally agree on the importance of high-quality resources to improve teaching effectiveness (Liu & Wang, 2020, pp. 90-105).

1.2 The problems of e-commerce instruction and management in the opinions of teachers

The e-commerce instruction and management of Beijing Open University has been deeply evaluated by teachers, which generally reflects that the course content lags behind the rapid development of the world, which has a significant impact on teaching quality and management. The rapid development of e-commerce technology has indeed brought great challenges to the updating of course content, which has aggravated the complexity and difficulty of teaching management. In addition, e-commerce teaching materials have failed to keep pace with the times and accurately reflect the latest developments in the industry, which has become a key factor restricting teaching quality and management effectiveness. Therefore, effective measures must be taken to ensure that the curriculum content is closely synchronized with the development of the industry to meet these challenges and improve the overall teaching and learning effectiveness.

Specifically, teachers generally agree that the lag of course content is a key problem in the current teaching of e-commerce (Li, 2012, pp. 15-16). At the same time, Sangrà, Vlachopoulos, & Cabrera (2012, pp. 145-159) also point out that in the e-learning environment, ensuring that educational content is aligned with rapidly evolving technology is a universal challenge that needs to be constantly updated to ensure its relevance and effectiveness. They emphasized the need for educational institutions to adopt flexible and adaptable strategies to respond to new technological trends to maintain the quality and relevance of their curricula. In addition, teachers emphasized the importance of updating textbooks to better reflect the dynamics of the modern industry.

1.3 The problems of e-commerce instruction and management in the opinions of administrators

The management of Beijing Open University highly recognized the teaching and management of e-commerce but also pointed out the core problems: first, the curriculum failed to keep up with the rapidly changing world, which seriously affected the quality of teaching. Second, it is difficult for students to balance course reviews when they are involved in e-commerce projects, which adds a challenge to instructional management. While the management acknowledges the high quality of e-commerce textbooks and reference materials, they emphasize that the curriculum must be updated more frequently to cope with the rapidly changing educational environment.

In a 2012 study, Sangrà, Vlachopoulos, and Cabrera (2012, pp. 145-159) highlighted the need for e-commerce learning to keep pace with technological and social change, a view that echoed the concerns of the management of the Beijing Open University about the lag in curriculum updates. Despite the high quality of the materials currently in use, the lack of up-to-date curriculum content remains a key issue that needs to be addressed urgently to ensure that the knowledge and skills taught are up-to-date and meet the real needs of the current society.

2. The needs of e-commerce instruction and management at Beijing Open University for students, teachers, and administrators were at a “High” level.

2.1 The needs of e-commerce instruction and management in the opinions of students

According to the students’ feedback, they spoke highly of the need of e-commerce teaching and management at Beijing Open University, and mainly focused on the following aspects:

First of all, most students are eager to have deeper communication with their teachers. They believe that enhanced communication with teachers is essential to enhance the learning experience. This view is in line with the research of Park & Bonk (2007, pp. 245-264), who point out that effective communication and interaction between students and teachers in online learning environments is critical to fostering student engagement and motivation. Strengthening communication channels can help reduce the distance between teachers and students, allowing for more personalized support and guidance, which is especially important in a digital learning environment.

Second, students generally emphasized that e-commerce textbooks and courses need to be updated to better reflect the current industry development. They expressed concern about the disconnect between teaching content and modern industry trends, which they believe seriously affects the quality of teaching. This is also supported by research by Zhu, Wang, & Jia (2010, pp. 218-231), who point out that updating educational content to the latest industry trends is essential to meet the needs of students and the requirements of the rapidly evolving e-commerce industry. The curriculum should integrate emerging technologies with practical applications to ensure that students are equipped with the necessary e-commerce skills and knowledge to lay the foundation for future careers in their future academic exploration and career development.

Lastly, the fact that students often use the university’s digital resources and online library to finish their e-commerce courses emphasizes how crucial these tools are to their educational process. They noted that improving the accessibility and quality of

digital resources is essential for coursework. This need dovetails with the view of Kim & Frick (2011, pp. 1-23), who argue that the availability and ease of use of high-quality digital resources play a key role in supporting student learning outcomes in both online and hybrid learning environments.

2.2 The needs for e-commerce instruction and management in the opinions of teachers

The teachers' evaluation of the e-commerce instruction and management system of Beijing Open University is very positive, and its core views focus on several core needs, which deeply reflects the close relationship between educational innovation and technological progress. First of all, teachers generally agree that the rapid development of the e-commerce field requires the curriculum content to keep up with the times, and this demand poses the greatest challenge and opportunity for teaching and management strategies. Teachers emphasized that updating the curriculum content is not only necessary to adapt to technological changes, but also the key to ensuring that the educational content is seamlessly integrated with real-world business practices. This insight is the same as that of Jones & Healing (2010, pp. 355-367), which states that the continuous updating of curriculum content is the cornerstone of coping with technological iteration and ensuring that students are equipped with practical skills, and any disconnection between technology and academic content can become a stumbling block to students' practical preparation.

Further, teachers place a high value on the indispensability of hands-on opportunities in e-commerce education, which is in line with the experiential learning concept emphasized by Nelson (2016, pp. 39-52). They point out that by providing real-world tasks and simulated environments, students can bridge the gap between theory and practice, and that this hands-on learning model not only deepens understanding but also significantly improves their career adaptability so that knowledge can be truly transformed into the ability to solve real-world problems.

In addition, teachers emphasized the importance of carefully selecting teaching materials from a large number of e-commerce resources, a view supported by the study of Wang & Lin (2012, pp. 99-117). They believe that although resources are abundant, only high-quality teaching materials that have been rigorously screened can effectively improve the quality of training and ensure the effective use of educational resources.

To sum up, the future development of e-commerce education at Beijing Open University needs to focus on the continuous innovation of course content, the expansion of practical opportunities, and the selection of teaching materials, which are not only a positive response to the needs of teachers, but also a vivid embodiment of the deep integration of educational wisdom and technological progress, intending to cultivate e-commerce talents with both profound theoretical foundation of e-commerce and practical ability.

2.3 The needs of e-commerce instruction and management in the opinions of administrators

According to the administrators' standards, Beijing Open University's e-commerce management and instruction requirements received high scores. First of all, most administrators agree that course materials need to be updated to reflect the rapid advancements in e-commerce technologies. This has the most impact on teaching and managing e-commerce. Second, most administrators believe that instructors in e-commerce

programs ought to have real-world expertise. Third, according to authorities, the curriculum has to be modified to match current global developments and to significantly impact education and e-commerce management.

Administrators emphasized that the rapid development of e-commerce technology requires curriculum materials to be updated frequently (Lee & Lee, 2015, pp. 211-229) and that it is critical to provide educators with real-world teaching experiences to enhance their hands-on teaching capabilities. Martins and Kellermanns (2017, pp. 22-36) point out that experiential learning and hands-on training can not only improve teaching effectiveness but also help teachers keep up with industry developments and better guide students to the real-world challenges of the e-commerce business. Administrators also noted that to meet the needs of contemporary e-commerce education, the curriculum must be revised to reflect the latest developments and market trends in the global economy. This is in line with research by Anderson & McCormick (2016, pp. 40-52), which highlights the importance of a dynamic curriculum to prepare students to adapt to a rapidly changing market.

3. The strengths and weaknesses of e-commerce instruction and management

A review of Beijing Open University's e-commerce management and education reveals that, despite the curriculum's many advantages, there are several challenges to be solved. One of the key benefits is the broad curriculum, which includes crucial topics like digital marketing, supply chain management, and online payment systems. This ensures that students receive a solid education, preparing them for a variety of e-commerce-related industries (Wang, 2023, pp. 22-35). A knowledgeable professor with expertise in business management and e-commerce enhances the curriculum and improves teaching quality overall (Chen, 2021, pp. 34-49). Additionally, students, particularly working adults and distance learners, have flexibility due to the availability of resources for learning online including multimedia material and e-books (Zhao, 2022, pp. 55-70).

However, the program has some problems. One significant issue is the outdated curriculum, which is unable to adapt to the rapidly evolving e-commerce industry. This limits students' access to up-to-date, relevant knowledge and skills. Another problem is the lack of opportunities for students to engage in practical projects or internships, which limits their ability to apply what they have learned in the classroom to real-world situations. There are fewer guest speakers, case studies, and internship opportunities due to the program's limited exposure to the e-commerce industry and its precarious partnerships with e-commerce companies (Chen, 2021, pp. 45-60). Additionally, there is a lack of interdisciplinary integration, which affects how well students understand how business, technology, and marketing intersect in e-commerce (Zhang, 2023, pp. 75-90). Lastly, faculty members who don't get enough professional development struggle to stay up to date with new instructional techniques and e-commerce technologies, which might lower the standard of instruction.

4. Strategic Guidelines of E-Commerce Instruction and Management for Beijing Open University

The Strategic Guidelines of E-Commerce Instruction and Management for Beijing Open University comprised five strategies. All of the five strategies; namely, 1) Managing E-commerce Instruction 2) Skills for e-commerce 3) Curriculum design and development 4) Learning resources for E-Commerce Instruction and Management, and

5) Technology. To effectively address the current challenges and meet the expectations of faculty and students, Beijing Open University urgently needs to develop a set of strategic guidelines for e-commerce management and teaching. Due to the rapid development of the e-commerce industry, it is important to adopt an advanced education model. The aim is to help improve the quality of teaching and ensure that students can keep up with the times and master the most cutting-edge knowledge and skills. By establishing a clear and specific vision and strategic goals, Beijing Open University can carefully construct a comprehensive curriculum that covers the core topics of e-commerce and skillfully integrates interdisciplinary learning. This well-designed curriculum will provide students with a solid foundation for a diverse career path that will prepare them for their future careers.

Further, Liu (2024, pp. 45-60) makes it clear that to provide students with rich hands-on experience and real-world experience, it is essential to build strong industry partnerships and adopt novel teaching methods. These elements complement each other and together shape the skills students need to thrive in the digital economy. Beijing Open University needs to constantly adjust its teaching and learning programs to ensure the relevance and effectiveness of course content with a continuous evaluation and evaluation system to cope with the rapid changes in the industry (Zhao, 2022, pp. 55-70). In addition, it is also essential to provide continuous professional development opportunities to support teachers' professional growth. This will greatly enhance teachers' ability to keep up with developments in the e-commerce space and flexibly adopt best teaching practices (Zhang, 2023, pp. 75-90). Through these comprehensive measures, Beijing Open University will be able to more effectively cultivate e-commerce talents that meet the needs of the digital economy.

Promoting an entrepreneurial culture and including ethical and legal considerations into the curriculum will further prepare students to navigate the complexities of the e-commerce world. To sum up, the development of these strategic guidelines is a crucial first step in Beijing Open University's e-commerce curriculum transformation, ensuring that it meets the needs of both teachers and students and produces graduates who are capable, adaptable, and ready to thrive in the e-commerce industry (Wang, 2023, pp. 12-29).

Recommendations

Recommendation for Implementation

To effectively implement e-commerce instruction and management at Beijing Open University, consider the following:

1. Create an interdisciplinary curriculum: Establish an interdisciplinary curriculum development team: An interdisciplinary team, including experts from marketing and IT, should ensure curricula align with current industry trends, fostering innovation and practical skill development. Led by the head of the e-commerce major, experts from marketing, information technology, supply chain management, and other departments are invited to participate in the formation of an interdisciplinary curriculum development team.

2. Provide cutting-edge guidance to educators: Hold regular teacher trainings: Organize regular teacher training events and invite academics and professionals in the field of e-commerce to share the latest research results and industry trends.

3. Establish industry partnerships: Establish long-term relationships with e-commerce companies and co-host networking events, such as industry forums, job fairs, etc., to provide students with opportunities to network with industry professionals.

4. Establishment of Entrepreneurship Center: Set up a special entrepreneurship center to provide entrepreneurship consulting, market analysis, legal consultation, and other services.

5. Promote regular assessment and evaluation: Use online learning platforms or instructional management systems to collect data on student learning, including learning time, assignment completion, test scores, etc. Applying AI technology: Using AI technology, such as machine learning and natural language processing, to intelligently assess students' learning behavior and performance, predict learning outcomes, and provide personalized learning suggestions.

6. Promote a culture of cooperation: Hold regular parent-teacher meetings, symposiums, and other activities, and establish a home-school communication platform: Use social media platforms such as WeChat and QQ to establish a home-school communication group, so that parents can keep abreast of school dynamics and children's learning, and communicate and exchange with teachers on time.

Recommendation for Further Study

The following suggestions can help research and development efforts to improve educational quality in e-commerce administration and instruction:

1. Analyze long-term program results: Analyze alumni's career paths to determine the program's effectiveness and get feedback for improvements.

2. Examine emerging technologies: Assess the impact of blockchain, artificial intelligence (AI), and big data on e-commerce and integrate these technologies into the curriculum to prepare students for the dynamic business world.

3. Develop teacher courses: Teachers can be organized to participate in professional training, seminars, and industry conferences to keep abreast of the latest technological and industrial developments. At the same time, teachers are encouraged to cooperate with enterprises and participate in practical projects to improve their practical ability and teaching level.

4. Entrepreneurship research support: Hold e-commerce-related entrepreneurship competitions and incubation programs to stimulate students' entrepreneurial enthusiasm and innovative spirit. Through competitions and incubation programs, students can showcase their entrepreneurial projects and receive guidance and support from professionals.

5. Research on strengthening industry partnerships: Join or establish e-commerce industry alliances and cooperative relationships with other universities, enterprises, and research institutions in the industry.

6. While the strategic guidelines of e-commerce instruction and management address key issues, further research is needed to assess their scalability and adaptability to other educational contexts.

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