Strategies for Cultivating 'Double Innovation' Capabilities in High School E-Commerce Major Talent

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Abstract: In the rapidly evolving landscape of the e-commerce economy, an increasing number of students are opting to pursue in-depth studies in the field of e-commerce. E-commerce has become a prevailing trend in innovation and development across various industries, necessitating higher education institutions to align with contemporary trends. In the process of cultivating e-commerce professionals, there is a need for specialized adjustments in training and teaching methodologies, with a particular emphasis on nurturing students' innovative spirit, hands-on capabilities, and fostering their 'double innovation' abilities. This article primarily addresses these aspects, offering a platform for exploration and analysis. The paper delves into the current demand for e-commerce professionals, proposes related models and strategies for cultivating 'double innovation' talents, and conducts an in-depth examination of the issues in professional talent development.

1. Introduction

In today's era of rapid internet growth, e-commerce has emerged as a prominent trend in entrepreneurship, attracting an increasing number of individuals to engage in this field. The job market is witnessing a rise in positions oriented towards e-commerce, driven by the development of various models such as new retail, the Internet of Things (IoT), and artificial intelligence. As a result, e-commerce has become a new force in social development, offering a greater societal value. For higher education institutions, it is imperative to analyze current market demands, closely examine development trends, and focus on the requirements of businesses for e-commerce professionals. This entails exploring innovative entrepreneurial talent development models to enhance the quality of vocational education and improve students' employability skills, thus effectively undertaking the cultivation of new e-commerce professionals.

2. Analysis of the Current Demand for E-commerce Talents

As China's e-commerce industry continues to grow at a rapid pace, the demand for e-commerce professionals is increasing, aligning with the overall development trend. During the process of educational reform and innovation in higher education, it is essential to address the current demand for e-commerce professionals and innovate talent development models in line with market
development trends to produce professionals that match the market's requirements.

According to a survey conducted by the China E-commerce Research Center, as of 2019, there was still an approximate 80% gap in demand for e-commerce professionals. The talent demand is growing in tandem with the expanding scale of e-commerce. Presently, the rapid development of the digital economy leads to an annual increase in demand for e-commerce professionals. In this context, higher education institutions need to cultivate specialized, comprehensive talents with a focus on 'double innovation' abilities.

Simultaneously, higher education institutions are actively introducing e-commerce programs and changing traditional teaching methods to meet China's demand for e-commerce professionals. They emphasize equipping students with practical skills, bridging the gap between theoretical knowledge and practical experience. Through practical teaching and project-based training, students get exposure to real e-commerce business scenarios and acquire relevant technology and strategies.[1] Additionally, higher education institutions also emphasize cultivating students' capabilities in information resource management, helping students master advanced management tools and technologies to compete effectively in the e-commerce field.

In the development of e-commerce professionals, apart from imparting professional knowledge and skills, cultivating holistic qualities is equally crucial. Higher education institutions focus on nurturing students' innovation skills, teamwork, and cross-cultural communication abilities, instilling in them an entrepreneurial spirit and innovative thinking, enabling them to adapt to the rapidly changing environment in the e-commerce field.[2]

Furthermore, the development of the e-commerce industry has given rise to new positions and occupational requirements, such as e-commerce operations specialists, data analysts, user experience designers, and more. Higher education institutions need to promptly understand and track the trends in these emerging professions, adjust specialized course offerings and teaching content accordingly to meet the industry's talent position requirements.[3]

In conclusion, the rapid expansion of the e-commerce industry has generated a continuous demand for e-commerce professionals. In educational reform, higher education institutions should focus on the current demand and innovate talent development models. By emphasizing practical skill development, the integration of theory and practical experience, and the cultivation of students' holistic qualities, institutions can effectively nurture e-commerce professionals who meet market demands, thereby driving the development of the industry and the overall economy. Additionally, higher education institutions should pay attention to emerging professional demands in the e-commerce industry, adjust teaching content and course offerings to prepare talents to face future industry challenges.

3. E-commerce talent teaching problem

3.1. Insufficient Development of Students' Professional Competency System

Students' professional competency refers to the various abilities and qualities required for their career development, including professional knowledge, skills, ethical values, innovation and entrepreneurship capabilities, as well as communication and collaboration skills. However, when analyzing talent development in the field of e-commerce within our country's higher education institutions, there are still several issues in the training process. These issues primarily manifest in the incomplete construction of students' professional competency system. The e-commerce industry is advancing rapidly and has relatively high demands for talent. Presently, due to the lack of clear training objectives for e-commerce professionals and a lower emphasis on career planning, the focus primarily remains on imparting knowledge in the e-commerce field. Teachers arrange students' course schedules, while the responsibility for enhancing and expanding their professional abilities largely...
falls on the students themselves. This instructional approach tends to result in an insufficiently developed professional competency system for students. The connection and integration between courses and practical teaching lack effective interaction, rendering practical teaching superficial and misaligned with the current demands of e-commerce industry positions. Students often lack a comprehensive understanding of the e-commerce major, exhibit a deficiency in business awareness, and lack entrepreneurial consciousness. They are unsure of how to engage in innovation and entrepreneurship effectively in practical operations and how to enhance their skill sets. Even an abundance of theoretical knowledge remains insufficient when it comes to real-world application. Given the evolving requirements of the job market, students need higher competence in learning and teamwork. However, the relative lack of focus on professional competency education in higher education institutions has, to a certain extent, impacted students' competitiveness in the job market.

3.2. Outdated Teaching Systems

From this perspective, two primary problems are the traditionalization of teaching methods and the isolation of disciplinary knowledge.

Firstly, there is a traditionalization of teaching methods. Traditional teaching methods often revolve around a teacher-centered approach that emphasizes lecturing and knowledge transmission. This focus on paper-based teaching methods tends to undervalue the development of students' hands-on skills. Students may encounter the following issues:

Lack of practical experience: Traditional teaching methods may leave students with limited opportunities to apply the knowledge they've learned in practical contexts, making it challenging to apply theory to real-life situations.

Lack of creativity and critical thinking: Traditional teaching often centers on rote memorization and exam-oriented skills, neglecting the cultivation of students' creativity and critical thinking abilities. The development of students' creativity and critical thinking abilities is often lacking in traditional teaching.

Lack of teamwork and communication skills: Traditional teaching typically encourages individual learning, overlooking the development of students' teamwork and communication skills.

Secondly, there's the isolation of disciplinary knowledge. The traditional education system tends to compartmentalize knowledge into distinct subjects. Students are required to study knowledge in various disciplines, such as statistics and finance, separately without bridging these disciplines together. This leads to the following problems:

Lack of holistic thinking: Students only learn fragmented content from different disciplines, making it challenging for them to think holistically and integrate knowledge from various subjects.

Difficulty in solving real-world problems: Real-life issues often require interdisciplinary knowledge, and students' inability to integrate knowledge from different subjects makes it challenging to address complex real-world problems.

Lack of practical application skills: The key to cultivating students' innovative capabilities and problem-solving abilities is to integrate disciplinary knowledge with practical application. However, within an isolated disciplinary knowledge framework, students often lack the opportunity for practical application.

E-commerce, as a multidisciplinary field, should be closely aligned with the contemporary economic landscape, which requires departing from traditional teaching methods. However, within the instructional process of e-commerce programs, some instructors still employ traditional teaching methods, which place a heavy emphasis on students' theoretical knowledge. This has led to a relatively traditionalized course structure that fails to meet the contemporary demands for e-
commerce talent development.

Teaching e-commerce should be a comprehensive process that integrates knowledge from various fields such as computer science, marketing, and copywriting, aiming to cultivate students' abilities in comprehensive application. However, if students merely acquire knowledge from various disciplines without effectively connecting them, there will be a significant disparity between the instruction and the actual results.

Despite the growing emphasis on students' theoretical knowledge and practical skills development in e-commerce program curricula and the integration of practical training, some issues persist. One of these issues is the potential conflict that students may encounter between the practical training system and employment requirements. The practical training facilities and software introduced by educational institutions may not entirely align with the current employment environment, potentially leading to students facing difficulties in adapting to the job market.

Furthermore, another issue related to the disconnect between the instructional system and reality is the lack of exposure to authentic e-commerce employment environments and practical projects. Students may not have the opportunity to gain firsthand experience and insights into the work environment and real challenges in the e-commerce industry, thus limiting their ability to meet industry requirements effectively.

3.3. Weak Teaching Resources and Inadequate Teaching Staff

Within e-commerce program instruction, it has been observed that some instructors lack expertise in this field. This issue is particularly evident in the availability of teaching resources and the adequacy of teaching staff. In terms of teaching resources, instructors may lack up-to-date and diverse teaching materials, case studies, and course materials. Additionally, there may be a deficiency in teaching resources.

Because e-commerce program instruction requires instructors to possess strong theoretical knowledge and to continuously enhance their own expertise, instructors must adapt to the evolving instructional environment and be capable of flexibly adjusting and innovating their classroom teaching. This places higher demands on instructors in terms of their theoretical knowledge base and their proficiency in e-commerce practices.

However, currently, some instructors in e-commerce programs in higher education institutions mainly come from an academic background and engage more in theoretical research. This has resulted in a relative lack of practical knowledge and experience among instructors. Moreover, if instructors fail to effectively integrate theoretical knowledge with practical application in their teaching, they may inadvertently neglect training students in real-world problem-solving skills. Additionally, if instructors lack practical experience and do not continually update their own knowledge, they may struggle to keep pace with the rapid development of the e-commerce industry and to convey the latest theoretical and practical knowledge to their students. In such circumstances, it becomes challenging to effectively cultivate double-creative talents with innovation and entrepreneurial capabilities. It also hinders the establishment of strong interaction and collaboration between educational institutions and businesses. The theoretical learning of students may struggle to be effectively combined with practical experience, thereby impeding the development of students' comprehensive abilities. Furthermore, if instructors persist in employing traditional teaching methods, the overall quality of instruction may be compromised. Given the rapid development of the e-commerce industry, theoretical and practical knowledge is continuously evolving and requires constant updates.
4. "Mass entrepreneurship and innovation" e-commerce professional talent training strategy

4.1. Innovative Teaching Methods and Robust Development of Students’ Professional Competency System

In the current process of higher education reform, transforming teaching methods, enhancing students’ professional competency, and establishing a specialized professional competency development system are urgent needs in the field of e-commerce talent development. This approach should align with the reform policies outlined by the government and vigorously promote entrepreneurship and innovation education among students. Taking into account the unique characteristics of e-commerce course content, the emphasis should be placed on constructing a specialized professional competency development system. In setting educational objectives, educators should prioritize students' needs, identify the core competencies required for e-commerce students, and align talent development objectives more closely with the needs of the industry by respecting market demands. This alignment should ensure that students become well-rounded professionals in line with the expectations of the job market.

Hence, there must be a transformation in teaching methods. A core curriculum structure suitable for the e-commerce discipline should be established. During the process of educational reform, instructors should utilize methods such as case analysis, project-based learning, and the use of multimedia to stimulate students' interest in e-commerce and enhance their professional awareness. It should emphasize the importance and value of students' professional learning while constructing a core competency system. This approach will enable more students to understand what challenges they need to address during their studies in the e-commerce field and consider their future career development. The introductory courses should strengthen students' professional awareness, ensuring they understand how to enhance their core employability. Additionally, e-commerce-related innovative work should be carried out from the perspective of entrepreneurship. Initiatives could include organizing innovation and entrepreneurship competitions to help students showcase their professional competency through teamwork.

4.2. Enhanced Curriculum Systems and Diverse Practical Learning Methods

To address the issue of the disconnect between the e-commerce curriculum and real-world demands, educators should not only engage in classroom reform and innovation but also enhance the structure of the curriculum and diversify practical learning methods. Since e-commerce curriculum systems are divided into theoretical and practical teaching, it is essential to blend these elements in students' actual education. In general, theoretical teaching should closely follow the requirements of contemporary developments, establish a theory-centric curriculum system focusing on innovation and entrepreneurship, and adapt to the evolving trends in the e-commerce industry. This process should actively address the knowledge structure required for intelligent software and hardware development. Students should master current fundamental theories and skills. Building on this foundation, specialized practical teaching should be introduced to expand the innovative learning system. According to the principle of continuous four-year education combined with two-year cooperation, instructors should understand the practical operation processes of current e-commerce businesses, construct a specialized innovative and entrepreneurial practical teaching system, strengthen students' participation in experiments, practical training, internships, and various comprehensive components, emphasizing a comprehensive design approach. This will allow more students to create a genuine work environment during project practice, understanding the actual operation processes of companies. Students can then apply the foundational coursework and theoretical knowledge acquired to real case development. This will ensure that they achieve the desired result of genuine contact with
employment enterprises, and the training process will serve as a crucial phase in students' ability enhancement for employment. It will enable students to better grasp the current status of the e-commerce industry's development and improve their employability skills.

4.3. Cultivation of Dual-Role Excellent Instructors for Building a Strong Teaching Staff

In the process of e-commerce education reform and innovation, it is essential to cultivate a teaching staff with dual capabilities. Schools need to focus on strengthening the teaching staff. Utilizing available teaching resources and enhancing the capabilities of the teaching team to cultivate outstanding e-commerce professionals is imperative. This approach requires addressing multiple aspects of teaching, including theoretical knowledge and practical foundations for instructors. Extensive teacher training should be conducted. Over a specific period, in conjunction with their teaching responsibilities, instructors should gain an understanding of the current industry development status and continuously reflect on and refine their teaching methods. This will enable them to carry out teaching activities in a more targeted manner. Schools should encourage internal faculty to gain practical experience by working with industry enterprises. Instructors' practical experience in business operations can to some extent demonstrate their professional competence and align with the requirements of dual-role teaching staff development. Schools can also invite business management professionals and technical experts to serve as part-time instructors at higher education institutions. This will diversify the teaching staff structure and meet the requirements for nurturing innovative talents.

4.4. Strengthen Practical Case Studies and Experiential Education

To enhance students' practical skills and problem-solving abilities, practical case studies and experiential education can be introduced in e-commerce talent development programs. Instructors can guide students to analyze and resolve real e-commerce cases, allowing them to experience firsthand the challenges and solutions encountered in actual business environments. To further strengthen experiential education, collaboration with industry enterprises can be established, enabling students to gain practical experience in real business operations. This will enhance their practical operational and innovation capabilities. Organizations can arrange for students to participate in practical training, internships, and experiential e-commerce projects.

4.5. Construction of E-commerce Laboratories and Simulation Training Facilities

Schools can establish e-commerce laboratories and simulation training bases to provide improved internship environments. These laboratories should be equipped with advanced e-commerce platforms and related technical equipment for students to conduct experimental research and project development. Simulation training facilities can replicate real e-commerce operating environments, allowing students to engage in teamwork and simulate business operations. Through these experiential environments, students can gain a better understanding of how the e-commerce industry operates and apply their knowledge to real-life scenarios.

4.6. Interdisciplinary Collaboration to Foster Innovation

E-commerce spans various interdisciplinary domains, including economics, marketing, IT, and more. To nurture well-rounded e-commerce professionals, it's essential to strengthen interdisciplinary collaboration and innovation. Schools can organize interdisciplinary team teaching, assembling teachers and students from different disciplines to work together to address challenges and issues in
the e-commerce field. Additionally, conducting innovation and entrepreneurship lectures, academic forums, and similar activities can encourage students to actively participate in innovative entrepreneurial projects. Providing relevant training and support will foster students’ innovative thinking and entrepreneurial spirit.

4.7. Enhancing Industry Alignment and Understanding of Actual Job Requirements

To ensure that the e-commerce professionals produced align with industry requirements, schools can strengthen collaboration and communication with the industry. This can involve regularly inviting industry representatives, experts, and business professionals to conduct lectures and exchange activities at the institution, enabling students to stay updated on industry developments and understand actual job requirements. Additionally, schools can establish a feedback mechanism for employment information, closely cooperating with employers to gain insights into their requirements for e-commerce professionals. These insights can then be integrated into curriculum design and teaching content, ensuring that the education provided aligns well with market demands.

5. Conclusion

With the goal of nurturing entrepreneurial talents and simultaneously innovating e-commerce education, educational institutions must align their strategies with the current state of the e-commerce industry. It is essential to identify effective pathways for talent development by optimizing and analyzing the existing educational framework. Only through such efforts can high-quality talent cultivation and education be achieved.

References