

Research on the Talent Cultivation Model of Rural Revitalization Empowered by the Integration of Industry and Education: Taking E-commerce Major as an Example

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Abstract: The regional nature of higher vocational education dictates that it should take serving the local economy as its mission, integrate with local industries, and effectively contribute to rural revitalization. Taking the electronic commerce major as an example, this paper investigates the issues existing in the cultivation of electronic commerce professionals in higher vocational colleges through questionnaires and interviews. It summarizes that higher vocational colleges currently have a clear orientation for talent training objectives in e-commerce, have established an industry-education integration model, and possess a certain level of awareness in cultivating talents for rural e-commerce. At the same time, it identifies issues such as low employment rates among electronic commerce graduates and a lack of alignment with rural enterprises, insufficient practical experience among electronic commerce teachers, and inadequate curriculum alignment between electronic commerce courses and rural e-commerce. In response, the paper puts forward suggestions and opinions on a three-pronged approach involving the relevant departments, enterprises, and universities to empower talent cultivation for rural revitalization through industry-finance integration.

Keywords: Integration of Industry and Education; Rural Revitalization; Talent Cultivation Model for E-commerce

1. Introduction

In recent years, the state has introduced a series of policy measures to promote the development of rural e-commerce, clearly stating the need to accelerate the construction

of a comprehensive domestic consumption market and expand the coverage of e-commerce in rural areas. The development of rural e-commerce plays a pivotal role in improving the rural market system, promoting the modernization of rural circulation, and supporting rural revitalization. "The most arduous and burdensome task in building a modern country lies in the countryside." The key to achieving "rural revitalization" lies in "people," and cultivating these "people" is the mission of higher vocational education. The collaborative education model of industry-education integration is crucial in boosting rural revitalization and nurturing "new rural talents."

Currently, most existing literature focuses on qualitative analysis of macro policies, while empirical research in this field through questionnaires, in-depth case interviews, and other methods remains relatively scarce.

Given this situation, the potential incremental contribution of this study lies primarily in conducting a sample survey of selected higher vocational colleges from another level and perspective, identifying existing issues, conducting research on them, and proposing specific countermeasures. This, in turn, can provide a reference for cultivating a group of e-commerce talents for rural revitalization that are aligned with the needs of the times.

2. Research Methodology

Between January and June 2024, the team conducted a survey targeting a total of over 500 individuals from 25 higher vocational and technical colleges located in seven provinces across China, including Zhejiang, Jiangxi, Fujian, Henan, Shandong, Guangdong, and Guangxi. The overall effective response rate reached 91.8%. Based on literature review, an interview outline was formulated and

administered through semi-structured interviews. The survey content covered various aspects such as the gender ratio of respondents, school and major profiles; understanding of the talent cultivation objectives for e-commerce majors; forms of industry-education integration in nurturing e-commerce talents; the status of e-commerce talent development geared towards rural frontlines; the formats and effectiveness of e-commerce teachers' engagement with enterprises; software and hardware facilities; e-commerce curriculum design; collaborative textbook and course development between industry and schools; and the depth of school-enterprise cooperation. By combining quantitative and qualitative methods, the study conducted a correlation analysis focusing on the mastery of e-commerce skills within the context of rural revitalization, classroom teaching content, and the current status of industry-education integration

3. Current Status of E-commerce Talent Cultivation Model

3.1 Relatively Clear Talent Cultivation Orientation

The scope of e-commerce education is vast, encompassing both computer skills and business management disciplines. Hence, a clear cultivation objective is paramount. Only by establishing a precise goal can we formulate effective talent development plans tailored to the needs of enterprises, ensuring that graduates align with both corporate demands and industry standards. This, in turn, will better facilitate rural revitalization efforts.

According to the survey results, 25.3% of full-time teachers participate in setting talent cultivation objectives, integrating these with regional economic characteristics. Additionally, 56.8% of teachers are either familiar with or have a good understanding of the talent cultivation objectives for their respective e-commerce majors.

The data reveals that 82.1% of teachers have a clear orientation for nurturing e-commerce talents.

3.2 "Industry-Education Integration" Model is Basically Established

Industry-education integration enables the sharing of resources between the industry and

academia, including technology, equipment, and faculty, thereby enhancing resource utilization efficiency [1].

Regarding the methods of industry-education integration in e-commerce majors, 82.7% of full-time teachers indicated that they arrange for students to visit internship bases during peak seasons to engage in practical business activities. Additionally, 88.07% of teachers reported arranging visits to companies for students. Furthermore, 69.3% of teachers stated that the school has collaborative agreements with enterprises, including the joint construction of training laboratories, where enterprises bring projects to the school and assign instructors to teach on campus. Fifty-point-three-eight percent of teachers believed that our school has applied the "Modern Apprenticeship System" to the e-commerce major, while 20.61% were unaware of this, and 19.01% had limited knowledge about it.

The data suggests that 85.12% of teachers believe that their school has established a teaching model based on "industry-education integration."

3.3 Conscious Cultivation of Rural E-commerce Skills

Rural e-commerce differs from urban e-commerce in that it encompasses a diverse range of skills crucial for driving rural e-commerce development, enhancing agricultural product sales, and optimizing rural supply chains [2].

It is observable that currently, most higher vocational colleges tend to focus on talent cultivation from a traditional e-commerce perspective, encompassing disciplines such as art, customer service, and operations. The survey revealed that 76.34% of teachers believe that the current rural e-commerce skill training lacks specificity and is relatively monotonous in its approach. Additionally, 92% of teachers emphasized that the cultivation of rural e-commerce skills should be a shared responsibility between schools and enterprises, while 35.25% of students expressed their willingness to receive rural e-commerce skill training.

The data indicates that 90.1% of teachers agree that in line with the national rural revitalization strategy, there should be a strengthened emphasis on cultivating rural e-commerce

skills to differentiate them from urban e-commerce and undergraduate-level e-commerce programs.

4. Issues in the Industry-Education Integration Model for E-commerce Talent Cultivation in Vocational Colleges

4.1 The Employment Rate of E-commerce Graduates and Their Alignment with Rural Enterprises Need Further Improvement

With the implementation of the rural revitalization strategy and the widespread adoption of e-commerce in agricultural product circulation, the demand for e-commerce professionals in rural enterprises is gradually increasing. In particular, there is a pressing need for e-commerce talents who are familiar with the rural market, understand the characteristics of agricultural products, and grasp the circulation patterns to drive the development of rural e-commerce.

Regarding the employment status of e-commerce graduates, only 11.16% of respondents expressed full satisfaction, while 54.5% were relatively satisfied, and the rest indicated average or dissatisfaction. When asked if the e-commerce majors trained by their schools could meet the needs of enterprises, only 45.6% of respondents believed that the students' academic knowledge aligned very well or basically well with the job requirements in enterprises. Further interviews revealed that 67.4% of students had a moderate level of interest in such jobs. Among the surveyed students, 28.78% believed they would not engage in rural e-commerce in the future; 15.27% had no clear understanding of this, and 25.95% had limited knowledge.

Based on the data from both enterprises and students, there is still room for improvement in the employment prospects of e-commerce graduates in rural e-commerce.

4.2 Relatively Weak Practical Abilities of E-commerce Teachers

As a rapidly evolving field, the e-commerce industry constantly witnesses updates and iterations in its technologies and business models, posing higher demands on e-commerce teachers. Indeed, many e-commerce teachers need to enhance their practical abilities to keep up with the demands of the

industry's development.

Over 90% of e-commerce teachers acknowledge that their practical skills need improvement and express a desire for better engagement with enterprises. Among them, 32% say they visit companies at least once a year, 16% indicate they do so almost every semester, while 14% of vocational college teachers admit they have not been to an e-commerce company in three years. Furthermore, 26% of e-commerce teachers believe that working in enterprises as a part-time position has a good effect, 57% find it moderately effective, and 17% consider it ineffective. These figures suggest that the extent of e-commerce teachers' frontline practical experience in enterprises is insufficient, and there are not many teachers with corporate internship backgrounds. It is conceivable that someone who lacks business experience may struggle to teach business effectively.

From this perspective, there is a pressing need to strengthen the practical training for e-commerce teachers in both enterprises and rural areas.

4.3 Weak Alignment between E-commerce Curriculum and Rural E-commerce

The rapid evolution of the e-commerce industry often outpaces the curriculum design and teaching content in universities, resulting in students struggling to acquire the latest knowledge and skills that align with the needs of enterprises and rural areas.

Sixty-five percent of teachers emphasized that vocational education should prioritize rural development in its training programs. In our survey, only 16% of full-time e-commerce teachers indicated that their courses covered extensive content related to rural e-commerce, while 22% said that such content was rarely included, and 52% revealed that there was no dedicated module on rural e-commerce within their curriculum.

This underscores the relative scarcity of research specifically focused on job skills for rural e-commerce positions and the general lack of alignment between existing course offerings and the requirements of rural e-commerce roles.

5. Relevant Countermeasures

5.1 Encouraging Leading Rural Enterprises to Engage in Industry-Education Integration

While a series of industry-finance integration policies have been implemented offline, their implementation and supporting measures are still far from sufficient.

Stimulating leading rural enterprises to engage in industry-education integration is a systematic project that requires concerted efforts and collaboration among the government, enterprises, universities, and other stakeholders. The government should introduce specific policies tailored to encourage the participation of leading rural enterprises in industry-education integration, clarifying support directions, preferential measures, and safeguard mechanisms. Through policy guidance, industrial alignment, financial innovation, talent cultivation, and demonstration leadership, these measures can drive leading rural enterprises to achieve higher-quality development and make greater contributions to rural revitalization [3].

5.2 Establishing Industry-Education Integration Centers for Rural Revitalization

University-run enterprises can extend their reach to market terminals and jointly establish industry-education integration centers with rural enterprises to better integrate theory with practice and cultivate professionals who better meet the needs of society. In the field of e-commerce, these integration centers can encompass modules such as practical teaching bases, startup incubators, e-commerce service centers, among others, providing students with more hands-on opportunities and resources.

5.3 Encouraging E-commerce Graduates to Pursue Careers in Rural Enterprises

Currently, graduates with e-commerce majors from Chinese universities still lack enthusiasm for embarking on e-commerce endeavors in rural areas. Moreover, the e-commerce profession is not perceived as "prestigious" among farmers, and some online celebrities have even criticized the profession by highlighting its average job environment to attract attention and traffic.

To address this, we should intensify efforts to promote e-commerce graduates and guide them to actively seek employment in rural enterprises. By optimizing the employment

environment, we can attract the best talents as the saying goes, "Only by planting good wutong trees can we attract golden phoenixes." Increasing policy support, we can introduce a series of preferential policies tailored for e-commerce graduates who choose to work in rural enterprises, such as tax reductions, housing subsidies, and entrepreneurship support, to alleviate their financial burdens and boost their willingness to work in rural areas [4]. Additionally, we can establish a special fund for e-commerce talent relocation to rural areas, which can be used to support rural enterprises in attracting e-commerce professionals by providing training subsidies, project funding, and other incentives to help them attract and retain talent. Only through fundamental reforms in both the macro and micro environments, making agriculture a respected profession, and implementing measures such as policy guidance, environmental optimization, talent cultivation, advocacy, and incentive mechanisms, can we attract more e-commerce graduates to devote themselves to rural e-commerce, contributing their wisdom and strength to rural revitalization and economic development [5].

5.4 Implementing "Rural Revitalization + E-commerce" Innovation and Entrepreneurship Education

Implementing "Rural Revitalization + E-commerce" innovation and entrepreneurship education is a comprehensive process aimed at leveraging the power of e-commerce to drive rural revitalization while nurturing talents with innovative spirits and entrepreneurial capabilities. This can involve organizing students to participate in e-commerce startup projects, providing venture capital and incubation support to help them transform theoretical knowledge into practical skills and contribute to rural revitalization [6].

Establishing e-commerce platforms to support rural enterprises, farmer cooperatives, and other rural economic entities in setting up their own e-commerce platforms or joining third-party e-commerce platforms can broaden the sales channels for agricultural products, enhancing their added value and market competitiveness [7]. Furthermore, creating entrepreneurship incubation bases within universities, vocational schools, or rural areas can offer aspiring students and farmers who

wish to engage in rural revitalization through e-commerce innovation and entrepreneurship, support and services in terms of venues, funding, technology, and more.

6. Conclusion

Over the next five years, the talent gap in rural e-commerce is projected to reach 3.5 million individuals. Cultivating e-commerce talents is a complex, systematic, and long-term endeavor that necessitates the concerted efforts of governments, universities, enterprises, and all sectors of society. Empowering rural revitalization through industry-education integration to cultivate e-commerce talents requires a multi-faceted approach, including the construction of a collaborative cooperation mechanism involving multiple parties, the establishment of quality standards and institutional systems related to the talent cultivation process, and the promotion of double-qualified teacher teams and educational and teaching reforms. It necessitates deep cooperation between universities and enterprises in jointly participating in the formulation of talent cultivation programs, curriculum design, practical teaching, and other aspects to cultivate high-quality technical and skilled talents that better meet the needs of society.

By implementing measures such as clarifying talent cultivation objectives, optimizing talent cultivation systems, strengthening industry-education integration, reinforcing policy support and guarantees, and emphasizing sustainable development and innovation-driven approaches, we can nurture a group of revitalization talents who are passionate about the "new countryside," "new agriculture," and "new farmers," equipped with e-commerce skills and a deep affection for rural areas.

In summary, electronics are the means, commerce is the goal, industry-finance integration is the channel, rural areas are the frontline, and revitalization is our shared aspiration.

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References

- [1] Yuan Xiaohua, Zhang Miao. A Literature Review on the Integration of Industry and Education in China's Vocational Education in the New Century. *Journal of Beijing Vocational College of Economics and Management*, 2022, 37(1):66-71.
- [2] Yang Rui. Practical Problems and Optimization Paths of Empowering Rural Revitalization through E-commerce Majors in County-Level Vocational Schools in Northern Jiangsu Province: A Case Study of Hongze Secondary Vocational School in Jiangsu Province. *Rural Economy and Science-Technology*, 2022, 33(22):279-281.
- [3] Zhu Zhongyi, Guo Guangjun, Zhou Lingbo. Issues and Promotion Strategies for the Integration of Industry and Education in Higher Vocational Education to Empower Rural Revitalization Strategy. *Education and Vocation*, 2021(15):7.
- [4] Li Xiaodan. Research on Vocational Education Empowering Rural E-commerce Development from the Perspective of Rural Revitalization: A Case Study of Liaoning Province. *Journal of Liaoning Teachers College (Social Sciences Edition)*, 2023(2):17-20.
- [5] Zhang Ying. Research on Information Empowerment of Mobile Internet in the Perspective of Rural Revitalization: A Case Study of "Tencent for Village" Project. *Communication Force Research*, 2021, 5(15):2.
- [6] Li Li. The Cultivation Mode of E-commerce Talents through the Integration of Industry and Education in Higher Vocational Colleges under the Background of Rural Revitalization Strategy. *Smart Agriculture Guide*, 2023(7):134-135.
- [7] Zhong Shilian. The Internal Mechanism and Practical Path of Industry-Education Integration Empowering Rural Revitalization: A Case Study of Rural Revitalization Industry College. *Education and Vocation*, 2023(5):51-56