# Research on the Cultivation of New Retail Talents by the Integration of Production and Education under the Background of Digital Economy

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Abstract: At present, China's higher vocational education is still stuck in the traditional retail talent training mode, which can no longer meet the needs of the current development of new online retail talents. Taking higher education institutions as the starting point, combined with the improvement of the dynamic adjustment mechanism of majors, this article established a new talent cultivation model, strengthened the top-level design of teacher team construction, built teaching workshops and production training bases jointly with schools and enterprises, and established and improved the internal governance mechanism of enterprises as the starting point. Under the conditions of the digital economy, the educational mechanisms of "integration of industry and education" and "collaborative education" were explored, and highly skilled new retail talents were innovatively cultivated. In the feedback evaluation of new retail talents, excellent accounted for 72.4% and good accounted for 16.5%. This article is helpful for guiding the training plan for new retail talents.

**Keywords:** Digital Economy, Industry-Education Integration, New Retail Talents, Talent Training, School-Enterprise Co-Construction

# 1. Introduction

Currently, with the continuous development of the digital economy, there is a higher demand for the cultivation of high-level talents. Establishing a new retail talent training model centered on the development of the digital economy and innovating the training methods for composite talents is of great significance for improving the level of higher education work in universities. This is also conducive to improving the practical ability of universities to cultivate versatile talents in the context of the development of the digital economy, thus filling the structural gaps in the cultivation of new retail talents. This enables the cultivation of new retail talents to enhance the transportation of talents for the development of the digital economy based on the integration of industry and education.

Under the conditions of digital economy, the integration of industry and education can provide society with comprehensive and multi-level new retail talents. The New Retail Industry Research Institute is an inevitable result of adapting to social transformation and development, and shoulders significant missions and responsibilities. Yu Yanrong analyzed the influencing factors of the integration of industry and education in the New Retail Industry College, combined with practical situations, and adopted issues and countermeasures that need further exploration [1]. Lu Qiuping believed that in order to promote innovation in the "maker space" of universities, a new development model of industry education integration must be constructed on the basis of industry education integration [2]. In the new era, promoting the integration of industry and education in local applied undergraduate colleges is a major measure to cultivate new drivers of economic growth. Mao Caisheng introduced the symbiotic theory of ecology into the study of industrial clusters, thereby providing new ideas and approaches for the integration of industry and education in local applied undergraduate colleges [3]. However, their research did not make specific plans for the cultivation measures of new retail talents.

In the process of strengthening educational cooperation between enterprises and universities, universities and enterprises work together to develop a new retail talent training program, utilizing the digital technology and digital economy development resources possessed by enterprises to help universities carry out education and training for new retail talents. In the process of actively conducting education and job trials for new retail talents, innovative thinking and learning exploration awareness

of new retail talents can also be cultivated, enabling students to have stronger job innovation abilities and better grasp various professional skills. After graduation, in the new retail industry where the new retail talents in the experiment are located, the service industry accounted for 10% of new retail; cross-border e-commerce accounted for 15%, and unmanned retail accounted for 15%.

## 2. Connotation of Talent Cultivation in the Integration of Industry and Education

The integration of industry and education in talent cultivation refers to in-depth cooperation with industries and enterprises. It refers to vocational colleges' efforts to improve the quality of talent cultivation, meet the job requirements of enterprises, and achieve the educational role of vocational education. Through the integration of industry education and collaborative education, vocational colleges are closely integrated with the industry. In the local professional setting and construction, talent training goals are formulated and implemented; courses are developed; products are developed; technical services are provided [4].

# 2.1 Achieving the Alignment of Training Objectives through the Integration of Industry and Education

Through the close connection between school administration, school administration, and school enterprises, combined with local industrial and economic development plans, scientific planning is carried out for vocational education in the region, with industrial job groups as the center and industrial development as the direction. Professional and scientific construction is carried out, and curriculum standards are scientifically set according to the requirements of vocational ability standards and enterprise job abilities. Teaching content is scientifically set around typical work tasks of enterprise positions, and a scientific training base based on the practical process of the enterprise is built. At the same time, the basic quality requirements of employees from the enterprise are scientifically integrated into the teaching process, so that the talents cultivated by the school can be scientifically aligned with the actual production needs of the enterprise [5-6].

# 2.2 Cooperative Education

The main body of education has transformed from a single school body to various educational bodies such as schools, governments, industries, enterprises, etc., with a common goal of talent cultivation as the center, collaborating with each other to leverage their resource advantages, in order to maximize the interests of various educational bodies and achieve the goal of win-win cooperation. To enable better collaborative education between schools, it is necessary to improve the cooperation mechanism between schools, establish an innovative platform for government enterprise school collaboration, and coordinate and integrate multiple links in culture, management, faculty, technology, platform, teaching, and industry research. Only then can the cultivation ability and level of talents be improved [7].

# 3. Problems in the Cultivation of Traditional Retail Entrepreneurship Talents

Traditional retail enterprises lack the cultivation of entrepreneurial awareness among their employees during the training process. In traditional retail talent cultivation, the focus is only on students' employment concepts. They have not given enough attention to the cultivation of students' entrepreneurial awareness and innovation ability, and some companies even feel that they cannot retain employees with entrepreneurial spirit. However, the company has overlooked one thing: in order to grow, enterprises must have adaptable, creative, and entrepreneurial employees. Only with such talents can enterprises continuously adapt to today's rapidly changing external environment [8-9].

## 3.1 Lack of Employment Confidence in Retail Talents

For retail training, there is a high turnover of retail personnel, while the salaries of grassroots retail employees are low. This result in college students choosing majors related to retail, but they do not receive enough recognition. In their sophomore year, they did not have much enthusiasm for their professional knowledge, and their junior classmates had little hope for their work. Even during internships, they also do not have enough confidence to face the development of this industry, resulting in a dilemma of high liquidity [10].

#### 3.2 Unreasonable Curriculum Design in Vocational Colleges

Especially in the field of talent training in new retail entrepreneurship, there is a lack of relevant courses, training in entrepreneurial thinking, entrepreneurial spirit, entrepreneurial knowledge and skills, and effective integration with enterprises is not close enough [11-12].

## 3.3 Excellent Technician Talent Cultivation Cannot Meet Market Demand

The proportion of excellent technical personnel training programs is relatively low, which cannot meet the huge and vast market needs of new retail enterprises [13]. At present, there are very few outstanding talents in China's higher vocational education, and this target range is relatively narrow, which is far from the demand for store managers, store managers, and entrepreneurial talents in the new retail era.

The RFM model (Recency, Frequency, Monetary) is a commonly used method for customer value analysis, which can help enterprises locate and manage customer relationships in new retail [14-15]:

RFM Score = 
$$\mu$$
 (R \* W1) +  $\rho$  (F \* W2) +  $\theta$  (M \* W3) (1)

R represents the score of the last purchase time, and F represents the score of purchase frequency.

The CLV model (Customer Lifetime Value) is used to calculate customer lifecycle value, which is the value generated by customers in all their relationships with the enterprise [16]:

$$CLV = (A * T) - p_k \tag{2}$$

A represents the average profit generated per transaction; T represents the average life cycle of the customer;  $p_k$  represents the average acquisition cost of the customer [17].

## 3.4 Insufficient Depth of the Concept of Industry Education Integration

There are numerous off campus training bases with low quality, and there is a lack of expert guidance from new retail leading enterprises. Order based training and school enterprise joint training are both superficial. The mode of integration between industry and education is relatively simple, which leads to many students only working in retail enterprises during their job internships and leaving immediately after the internship. This does not effectively enhance the employment enthusiasm and stability of students in this major in the retail industry. They have little understanding of the employment choices in the new retail industry and have not laid a solid foundation for the cultivation of new retail entrepreneurial talents [18-19].

# 4. Strategies for Collaborative Cultivation of New Retail Talents through the Integration of Industry and Education in the Background of Digital Economy

(1) Promoting the development of education through deep cooperation in the integration of industry and education

Promoting in-depth cooperation and educational development in the integration of industry and education is to utilize rich digital economy market resources to build a multi-level teaching service model for industry and education integration, and to engage in education and technology cooperation with enterprises in various industries in the process of digital economy development. Some of the company's emerging technological content and development concepts have been integrated into the new retail talent training system, thereby solving the problem of insufficient educational resources in cultivating new retail talents in schools. In this way, in the environment of "integration of industry and education", traditional methods of education can be broken, and new educational development can be better achieved [20]. For example, training new retail talents for accountants, auditors, and business management positions should not only make professionals aware of the job characteristics of the corresponding positions, but also consider the impact of the development of the digital economy on the work of accountants, auditors, and business management positions. Moreover, job responsibilities related to the digital economy should be gradually incorporated into teaching practice, allowing new retail talents to accumulate experience in applying relevant professional skills in the context of the development of the digital economy.

(2) Deepening the interdisciplinary comprehensive ability training system

Building a multidisciplinary and multi-level comprehensive ability is a prerequisite for building a multidisciplinary and multi-level talent cultivation system. With the development of the digital economy, the training methods for new retail talents have undergone changes, but the basic "industry education integration" training system still exists. Therefore, universities should make good use of a teaching and training platform that integrates industry and education, strengthen the integration of teaching and learning on the basis of interdisciplinary teaching development, and incorporate some course content related to professional course knowledge. On this basis, the design of educational internships for the cultivation of new retail talents has been increased, and through the integration of industry and education, the experience of teaching results has been enhanced, recognizing the problems and problems that exist in teaching work at different stages. Therefore, a new training method has been determined in the new era to better promote the interdisciplinary comprehensive ability cultivation of new retail talents. For example, in the cultivation of new retail talents in the fields of news communication and law, it is necessary to fully utilize the advantages of the development of the digital economy, and conduct in-depth teaching discussions and strengthen the expansion of teaching content from several aspects such as the development of the new media industry, the development of the legal industry, the construction of the legal system, and the characteristics of news media positions. By cultivating the sensitive job sense of professional talents and enhancing the interdisciplinary knowledge reserve of new retail talents, the comprehensive job ability of new retail talents is improved from the perspective of interdisciplinary training. On this basis, based on the construction of interactive mechanisms for online and offline teaching, the interdisciplinary learning ability and learning outcomes of new retail talents are studied. Through situational simulation and case studies, the strengths and weaknesses of the current stage of learning are identified. On this basis, a multidisciplinary and multi-level talent cultivation system is constructed, providing new decision-making basis for talent cultivation in the digital economy environment.

# (3) Introducing rich educational resources, industrial resources, and emerging digital technologies

In order to better adapt to the needs of the digital economy era, it is necessary to plan professional education based on industry development and the application of digital technology. In order to further improve the new retail talent training system based on the digital economy, a solid industry education integration platform has been established. In the context of the digital economy, universities should increase their efforts in introducing education, industry, and digital technology. Among them, the introduction of educational resources can optimize the way universities provide educational resources, improve the efficient utilization of teaching resources by teachers, and enable them to systematically formulate a complete set of education and training plans for the employment and development needs of new retail talents in the digital economy environment. The attraction of industry resources provides an educational guarantee for universities to further deepen the integration of industry and education, enabling educational cooperation between universities and enterprises not only in talent cultivation, but also through targeted talent transfer, high-level talent cultivation and teaching reform, to improve the quality of education and training for new retail talents. The introduction of emerging digital technologies can help universities improve their foresight in cultivating new retail talent education, enabling them to continuously innovate and develop new retail talent education. This can solve the problem of some universities falling behind in education strategies, measures, and mechanisms in cultivating new retail talents, and enable them to better adapt to the development of the digital economy, and make decisions on the cultivation of new retail talents for the integration of industry and education.

# (4) Constructing an evaluation mechanism for industry education integration based on the digital economy

Establishing a digital economy based integrated education evaluation system for industry and education is to adapt to the trend of digital economy development, reform existing education evaluation methods, evaluation standards, and evaluation standards, and combine the characteristics of digital economy development, the industrial structure of digital economy, and the role of enterprises in digital economy development to adopt a new type of retail talent training plan. In building a two-way education evaluation system between enterprises and universities, universities and enterprises should not only pay attention to their work adaptability and efficiency, but also consider their upward space, development conditions, and work value in the digital economy development environment as a main basis for evaluating new retail talents. An analysis is conducted on the current talent cultivation model of industry education integration in universities to determine whether it can create sufficient development value for companies in the process of digital economy development. It is also necessary to strengthen the application of flexible education models and strengthen educational and teaching experiments. An analysis is conducted on the educational applicability of various teaching plans in the

digital economy environment, and research is conducted to extract their educational value and content, in order to ensure the scientific and objective evaluation of education for cultivating new retail talents in the digital economy environment. On this basis, a new retail talent training model centered on the integration of industry and education is adopted, and in-depth research is conducted on it.

(5) Emphasizing the multiple combinations of educational research, technological development, and industrial innovation

Although the development of industry education integration provides a good environment for cultivating new retail talents, the development of the digital economy has changed the mode of market economy. Therefore, in order to achieve the integration of industry and education, it is necessary to increase the reform of education in the construction of technology application industries and other aspects.

# 5. College Level Training

## 5.1 Improving the Dynamic Adjustment Mechanism of the Profession

To adapt to the industry layout and market development situation in the local area, dynamic adjustments should be made to the setting of majors, and timely adjustments should be made to the curriculum system in response to the needs of industry transformation and upgrading to achieve optimal results.

#### 5.2 Establishing New Talent Cultivation Models

Through research on enterprises, the creativity of talents is strengthened. Based on the principles of typicality, representativeness, and scale, those that meet the needs of the future industry are selected to provide services for future enterprise job positions. A curriculum system based on professional positions, enterprise positions, and the needs of enterprise job capabilities is established. Through the ideas of cultural integration, management integration, teacher integration, technology integration, and integration of teaching and research, a new type of school enterprise win-win education approach is formed by combining engineering and learning.

## 5.3 Top Level Design for Strengthening the Construction of Teaching Staff

One is to improve the supporting mechanism for the construction of the teaching staff. It is to assign teachers to the technical department and frontline positions of the enterprise according to the academic year, so as to provide a real-time understanding of the new equipment, new processes, new technologies, and new needs of the enterprise. At the same time, a practical evaluation system for enterprises under the guidance of teachers should also be established, and the actual participation of teachers in product development, technological innovation, and other aspects of the enterprise should also be included in the evaluation.

The second is to train and evaluate the technical backbone dispatched by enterprises to schools for part-time work, enhancing their sense of responsibility and mission.

The third is to establish school enterprise cooperation, with multiple mentors providing guidance and working together to promote the improvement of education and scientific research levels.

# 5.4 Joint Construction of Teaching Workshops and Production Training Bases by Schools and Enterprises

The teaching workshop and production training base are built within the enterprise to create a true working environment for students. At the same time, the working hours required for students to participate in enterprise product production are also included in the conditions for skill assessment. The participation of freshmen in enterprise product research and development projects is also included in the graduation requirements, maximizing the role of the base and achieving the goal of collaborative education.

#### 5.5 Establishing and Improving Internal Governance Mechanisms of Enterprises

The work standards for the integration of industry and education in collaborative education have been established and improved, and relevant management systems and norms have been improved. The relevant incentive and evaluation mechanisms have been established, and the internal management and implementation mechanism for collaborative innovation of industry education integration has been constructed to ensure the smooth development of talent cultivation work.

# 6. New Retail Talent Training Experiment and Results

Curriculum design: Courses in marketing, e-commerce, consumer behavior, and other related fields are designed to meet the needs of the new retail industry. Elective courses are carried out in schools, allowing students to learn new retail courses on platforms such as Coursera, edX, and Udemo.

Practical operation: The new retail practice base is simulated and visited to obtain relevant enterprise data for students to practice.

Industry education cooperation: Students are given practical training in new retail, and their training experiences are submitted every weekend.

Innovation and entrepreneurship education: The school actively encourages students to start businesses.

Academic research support: The school conducts monthly academic training and invites new retail industry experts and entrepreneurs to give lectures.

Training Lectures: Experts, entrepreneurs, or successful entrepreneurs from the new retail industry are invited to give lectures and share on campus.

Multiple evaluation system: Students' new retail classroom performance, practical achievements, innovation ability, and other aspects are evaluated. There are a total of 200 participants in the experiment, including 100 males and 100 females.

The satisfaction of college administrators with the integration of industry and education is shown in Figure 1. A total of 10 tests are conducted, with 85.3% of people feeling very satisfied, 11.6% feeling average, and 3.1% feeling dissatisfied.

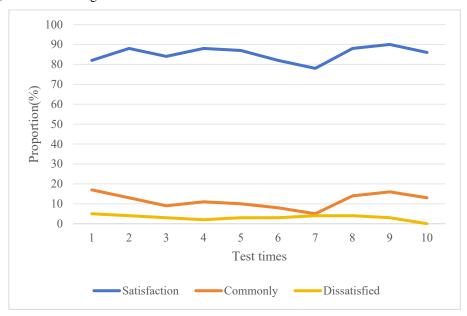


Figure 1: Satisfaction of college administrators with the integration of industry and education

The satisfaction with the effectiveness of talent cultivation through the integration of industry and education in universities is shown in Figure 2. 83.4% of people believe that they are satisfied, while 11.5% believe that they are average.

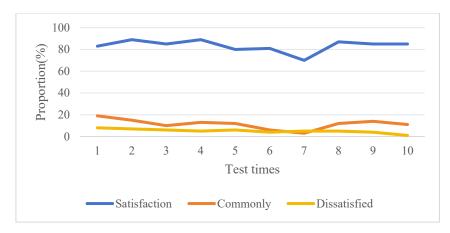


Figure 2: Satisfaction with the effectiveness of talent cultivation through the integration of industry and education in universities

After graduation, the new retail industry where the new retail talents in the experiment are located is shown in Figure 3. New retail in the service industry accounts for 10%; cross-border e-commerce accounts for 15%; unmanned retail accounts for 15%.

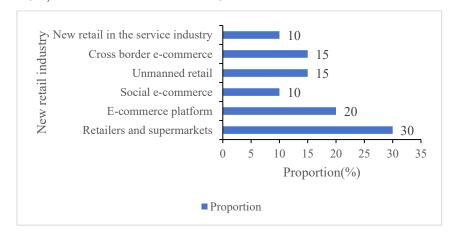


Figure 3: New retail industry where new retail talents are located in the experiment

The feedback and evaluation of new retail talents are shown in Table 1. The evaluation criteria are divided into three levels: excellent, good, and average. Excellent accounts for 72.4%, while good accounts for 16.5%.

Serial number	Excellent (%)	Good (%)	Commonly (%)
1	72	24	14
2	78	20	13
3	74	15	12
4	78	18	11
5	69	17	12
6	70	11	10
7	59	8	11
8	76	17	11
9	74	19	10
10	74	16	7

Table 1: Feedback and evaluation of new retail talents

# 7. Issues and Suggestions for Further Exploration

# (1) Issues that need to be explored in depth

Firstly, it is the frequent policy warming and a lack of specific action guidance. While promoting the construction of the Industrial College, people can also clearly feel that the relevant supporting

policies have not kept up. At the operational level, especially in some areas that require breakthroughs, clear policy guidance is rarely obtained from higher-level supervisory departments. For example, under the institutional design of the Industrial College, the long-term interest relationship between the school and the enterprise is to explore the path of "mixed reform" by taking "public" as an opportunity and "public vocational education" as the entry point. If not effectively resolved, it would hinder the further development of the Industrial College.

Secondly, it is still difficult to innovate the management system and mechanism. In the two-level institution designed by the New Retail Industry College under the leadership of the board of directors, various relevant management and operational systems have been formulated. In the current situation of multi-agent cooperation in education, it is difficult to mobilize everyone's enthusiasm without giving the jointly built secondary industrial college an independent subject status. In the process of establishing a university of technology, it is difficult to adopt modern management methods and operational methods to address the distribution of rights, responsibilities, and interests. At the same time, it also faces a large number of social resource utilization problems. The operation of the Industrial College involves coordination in various aspects, as well as the allocation of various resources such as human, financial, and material resources. Under the current system, the operation is very difficult.

## (2) Suggestions

The government should formulate corresponding supporting measures as soon as possible. In the context of the national education reform implementation plan, the local government should formulate specific and positive policies based on the local economic development situation and vocational education development plan, giving the college more power to allocate resources in terms of human, financial, and material resources. It is necessary to fully utilize the main role of enterprises in establishing industrial colleges, and through institutional design and innovation, ensure that the interests and demands of enterprises can be prioritized at all times, so that the entire process of talent cultivation can be fully mobilized by enterprises. It is necessary to establish an independent part-time teacher system in vocational schools to promote the two-way flow between highly skilled talents in enterprises and teachers in vocational colleges. It is also necessary to create conditions for highly skilled personnel in the enterprise during the process of professional title evaluation and rank promotion. When establishing a technical university, policy support for core members should be strengthened.

# 8. Conclusions

Therefore, universities should be based on the promotion of educational research work, study the impact of future digital economy development on new retail talents, and understand the internal connection between digital economy development and senior talent cultivation. In these three fields, the focus of educational research is to deepen the cultivation of new retail talents through the integration of industry and education. The technological research and innovation development of enterprises should also focus on educational research and strengthen the integration of education and research. By applying forward-looking technological content and policies for industrial development, the aim is to establish a clear goal of "industry education integration" for the cultivation of new retail talents in the digital economy environment, thereby improving the level of cultivation of new retail talents. It is necessary to ensure that the cultivation mode of "industry education integration" for new retail talents can be carried out in an orderly manner in the digital economy environment, and provide necessary educational support for expanding the teaching content of new retail talent cultivation, thus achieving the goal of promoting the development of industry education integration and improving the efficiency of new retail talent cultivation in the digital economy environment.

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