

E-commerce Logistics Talent Training Model based on Quality Continuous Improvement Method: Training Process Analysis and Relationships Evaluation

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Abstract

With the development of online retail, the demand for e-commerce logistics talents is increasing, and the requirements for specialized and comprehensive capabilities are gradually increasing. However, the training model of logistics professionals in colleges and universities does not match the actual needs of the market. There are obvious differences in the training modes of logistics management professionals in colleges and universities, which are prompting universities to pay attention to the process management of the logistics talent training mode and the continuous improvement of each process. Given this, we use the PDCA quality improvement method to conduct an in-depth analysis of the entire process and each link of logistics talent training and propose improvement measures and optimization suggestions for the training model of e-commerce logistics professionals. It is expected that the research results will help to improve the comprehensive ability of students major in logistics management and the employment rate of these students, especially the high-quality employment rate, and ultimately establish the connection between university talent training model and market demand.

Keywords

E-commerce logistics talents, logistics management, PDCA method, training model.

1. Introduction

Logistics management is a professional with strong practicality, which gradually formed with the development of the logistics industry. In recent years, with the development of the online retail industry, e-commerce logistics has become the focus of the industry and academia. The demand for e-commerce logistics talents and other international logistics senior talents is increasing. However, judging from the employment situation of logistics management graduates in recent years, there is a certain gap between the graduates' practical professional knowledge, skills and professional qualities and the actual needs of enterprises. The employment rate, especially the high-quality employment rate, is still low. For this reason, more and more colleges and universities have begun to take corresponding measures, such as successively cooperating with logistics companies to set up "customized classes for logistics professionals" and the construction of logistics practice bases between schools and enterprises to improve the training model of logistics professionals. This increases employment opportunities for graduates to a certain extent and meets the temporary needs of enterprises for logistics talents. However, with the development of e-commerce and the advent of the service economy, the business model and market environment of enterprises are undergoing major changes, and the requirements of enterprises for logistics talents are gradually increasing, especially the professional thinking and problem solving of logistics talents. The requirements for ability, rapid cross-border learning ability and practical innovation ability are

getting higher and higher. The cultivation of these abilities is closely related to the training program and training process of universities. At this stage, although colleges and universities are actively carrying out related works and some achievements have been made, there is still much room for improvement in the whole process control and feedback mechanism construction of the logistics talent training model. There is an urgent need for the logistics talent training model. Analyze each link, find and solve problems in time, and conduct cyclic monitoring and continuous improvement of the entire process to ensure the scientific, pertinent and sustainable logistics talent training model. To this end, this study proposes to adopt the PDCA quality continuous improvement method in the field of quality management to study the logistics professional talent training mode, training quality and practical innovation in the logistics professional talent training.

The PDCA cycle had its origin with Dr. W. Edwards Deming's lecture in Japan in 1950, which is a spiraling continuous quality improvement method. Since then, it has been widely used in the process of continuous improvement of product quality. (Ma et al., 2013). This study draws on the main ideas of this method and conducts an in-depth analysis of the logistics talent training system from the two dimensions of "full process" and "single link" to explore the e-commerce logistics professional talent training model and practical innovation. This study is based on the PDCA quality continuous improvement method to study the e-commerce logistics professional talent training model and practical issues. It will reveal the law of the influence of each link and the entire process of the logistics talent training model on the quality of talent training, clarify the internal connections between each link. The expected research results of this study will help universities to clarify the key to logistics talent training The process and the main factors that affect the quality of training will help colleges and universities build and improve the logistics management talent training program under the existing foundation and market environment, so as to improve the comprehensive ability of logistics students and increase the employment rate of logistics management graduates. Especially, the high-quality employment rate reflects a good connection between the university talent training model and market demand.

2. Current Situation of Logistics Education and Management

2.1. The Development Status of Logistics Education in Foreign Universities

Up to now, western countries have successively carried out logistics professional education, and a relatively complete logistics education system has been formed. According to statistics, more than 300 universities in 24 countries and regions have opened logistics management or related majors. For example, Harvard University, Massachusetts Institute of Technology and other institutions have opened logistics management or supply chain management majors; a total of 87 universities in EU countries have developed logistics higher education, of which 54 universities have logistics management and related professional master and undergraduate teaching systems, such as the Cranfield School of Business in the United Kingdom, Bordeaux Business School in France, the University of Cologne in Germany, etc. In addition, some European universities, such as Cranfield University, established an influential logistics center in Europe and the world—the Cranfield Logistics and Transportation Research Center. In Asia Among the countries, universities such as Waseda University, Ryutsu Keizai University, and the National University of Singapore have also opened logistics management undergraduate majors.

Foreign logistics management courses are mainly based on core elements of logistics such as distribution and transportation. Typical courses include supply chain management, logistics system planning and design, transportation system analysis, transportation and warehousing planning management, transportation circulation theory, geographic information system, and distribution information system. Among them, the logistics management major set by the

business school emphasizes supply chain management. Typical courses include supply chain management technology and application, supply chain logistics, strategic procurement and supply chain management, industrial logistics, inventory systems, etc., as well as simulation technology, statistics, and operations research. In addition, in addition to the training of logistics talents in developed countries, in addition to the training of colleges and universities, the logistics management vocational education and training carried out by various non-academic education training institutions are also very common, and a logistics professional qualification certification system has been established. The courses offered to involve. The entire logistics process is professionally targeted, with clear training goals and a complete syllabus.

2.2. The Development Status of Logistics Management Education in China

With the formation and development of the network economy, enterprises' demand for logistics talents has increased year by year, and more and more colleges and universities have opened logistics and related majors. Since the Ministry of Education of China approved the logistics management major as a non-catalog undergraduate major in 2000 and was first enrolled by the Beijing Institute of Materials and Materials in 2001, nearly 400 colleges and universities have opened logistics majors. After nearly two decades of development, domestic colleges and universities have actively explored logistics management talent training models and methods and have made great progress.

Analyze the logistics professional training model from the perspective of market demand and professional training status. Ma et al. (2012) put forward suggestions on the reform of logistics management courses from the perspective of the quality and ability requirements of logistics management graduates; Li (2011) addressed the current difficulties in employment of logistics management graduates in various universities and the lack of logistics-related enterprises. The practical contradiction of logistics management talents discusses the countermeasures to promote the employment of logistics management students from the two dimensions of market requirements for logistics management talents and the cultivation of the comprehensive quality of logistics management graduates; Guo et al. (2017) Analyze, propose setting course content and teaching methods as needed, establish a "training-internship-trial" pre-job time mechanism and a modern logistics talent training model with school-enterprise interactive feedback; Zhou et al. (2013) pointed out improvement from the perspective of the evaluation system The key to the training quality of logistics management talents and improving the market competitiveness of graduates lies in the establishment of a reasonable quality evaluation system for the training of logistics talents; Ming (2017) combined the current status and model of applied logistics talent training in various colleges and universities, and proposed the application of multiple co-education Logistics talent training model; Wang (2012) based on the current logistics teaching and talent training goals of higher vocational colleges, borrowed from the PDCA cycle theory, and constructed a sustainable logistics talent training model of "work-study alternation multi-stage cycle" in higher vocational colleges; Chen Ying (2016) From the perspective of market demand and talent positioning of training units, it analyzes the current situation of logistics talent training in colleges and universities. It points out that most colleges and universities have a relatively broad positioning of logistics management majors, which makes them unable to deal with talents according to economic characteristics and market needs. The training target is prepared and positioned.

In addition, some scholars have studied the specialized logistics personnel training mode in combination with regional economic development. Pei (2017), under the background of One Belt And One Road, combined with the requirements and characteristics of Guangxi's logistics development, studied the innovative training mode of Guangxi's logistics personnel. Under the background of One Belt And One Road, Zhong et al. (2017) analyzed the current situation of

talent training in Russian cross-border logistics, and put forward countermeasures and schemes of logistics talent training mode more suitable for social talents according to the characteristics of the current demand for talents in Russian cross-border logistics. Gu et al. (2016) studied the training mode of port logistics talents for Guangxi Beibu Gulf Economic Zone. Based on the comparative analysis of logistics management professional construction and logistics management education research, the current stage of logistics management professional training has the following deficiencies.

2.2.1. The Teaching System based on Teacher Motivation and Teaching Quality

Teachers are the basis for the improvement of teaching quality and the driving force for the steady improvement of teaching quality. It is necessary to actively mobilize the enthusiasm of teachers on the basis of improving the quality of the teaching staff. On the basis of relying on teachers' enthusiasm and teaching ideals, the existing teaching quality is mostly based on assessment, and the incentives and guidance need to be improved. The construction of logistics professional teachers is the foundation and prerequisite for improving teaching quality. This is gradually improving. However, the motivation and guidance of logistics professional teachers need to be improved.

2.2.2. Coordination of Multiple Aspects in the Teaching and Training System

From the perspective of reform content, logistics professional training needs to be comprehensively reformed, not just for unilateral or a few aspects such as the curriculum system. In terms of the scope and method of reform, the reform of the logistics management professional talent training model involves multiple factors such as training plan design, curriculum system construction, teaching resource input, teacher evaluation system, teacher incentive mechanism, and external environment. Each factor has an impact on logistics. The quality of talent training cannot be ignored.

2.2.3. The Concept of "Continuous Improvement" Needs to be Introduced in All Processes of the Logistics Professional Training Model

In terms of the progress of logistics professionals, we must fully consider the new problems and new situations that may arise in the reform, discover and summarize the problems in the reform process and continue to improve. "Continuous improvement" of the logistics professional talent training program is an effective measure to promote the continuous maturity and perfection of the training model. Colleges and related training units need a deep understanding of this.

3. PDCA Continuous Improvement Model of E-commerce Logistics Professional Talent Training System

Combining the existing training model and logistics talent training ability matrix, adopting the PDCA method to improve the talent training system from four aspects. The training system is improved in a targeted manner, and the entire logistics talent training process is analyzed periodically to form a dual "closed-loop" quality control and feedback mechanism for each link and the entire process of talent training, and then build an overall Logistics talent training quality continuous cycle improvement system.

3.1. PDCA Improvement System for Logistics Talent Training Process

3.1.1. Training Process and Selection of the Training System

The training process includes theoretical teaching, practical teaching and extracurricular activities. Theoretical teaching is mainly based on classroom lectures, using a variety of methods such as theoretical explanations, case studies, group discussions and group reports, to maximize students' understanding of professional knowledge and analysis capabilities of

practical problems in the enterprise from all aspects; in addition, Combined with the summer professional internship, we will lead the students to go to cooperative companies for on-site inspections and hire business managers as practical instructors outside the classroom to introduce the actual problems of the company and guide the students to analyze, so as to cultivate students' ability to integrate theory with practice, and use The theoretical knowledge learned analyzes and solves the practical problems of the enterprise; in addition, various forms are carried out, such as grouping students in a project-based way, and each group selects relevant topics to conduct social surveys and write survey reports to expand students' Vision and further enhance students' problem-solving abilities.

The selection and training program links include enrollment plan configuration, enrollment selection and training plan. Regarding the enrollment plan configuration process, it should be adjusted according to the dynamic market demand of the major and the professional skill status of the students, and do a good job such as diversion and guidance based on interest and market demand, as well as new attempts and pilot work of training models. Pay attention to the talent market and focus on market feedback. For the enrollment selection process, based on a more detailed and in-depth professional introduction to the candidates, candidates who are interested in the subject and willing to devote themselves to logistics management and research should be attracted to avoid the bias of interest and understanding leading to the selected subject. Unrecognized and lack of interest; in addition, the development of the training program is based on absorbing the mature programs of other universities, and the training program is formulated in combination with the school's school positioning, characteristics and school resources, and the training program is dynamic in a fixed cycle Adjust to ensure that the training program can connect with the market and meet the interests of students.

3.1.2. Incentive Mechanism, Post-evaluation and Employment

Teachers and incentive mechanism links include teacher team building and incentive mechanism. The faculty is the foundation to ensure the quality of teaching and subject development, and a better faculty is also the guarantee for talent training. At this stage, our school is actively building the teaching staff on the basis of taking into account the academic background and the academic structure and strives to promote the continuous improvement and optimization of the teaching staff. In fact, across the country, various universities and colleges have gradually implemented different talent policies to attract outstanding talents at home and abroad. However, many universities lack strong incentives for talent incentives. This has become an urgent need for improvement after the implementation of talent introduction in many universities. Talent incentives are closely related to the enthusiasm of teaching and research, and the output of teaching and research. "Research to promote teaching" also needs to be established on the basis of reasonable incentives and guidance for talents, which should also be included in the training of professional talents.

Post-evaluation and employment include the inspection of teaching quality, that is, the assessment of students, and the evaluation and inspection of the effect of talent training; the guidance for student employment is mainly based on the students' own characteristics, interests, and professional skills. Give advice on employment. Among them, the evaluation of student learning effects has gradually attracted the attention of the teaching authorities of various universities and has presented a multi-form and all-round evaluation mode in teaching evaluation. An effective assessment method can effectively test the quality of the course completion and the students' mastery of knowledge, and promote the quality of teaching and the further development of teaching work. The traditional logistics professional course assessment method is a unified theoretical examination arranged at the end of each semester. For logistics, such as a highly operational and practical course, it is difficult to reflect the characteristics of the course and to test the practical application of students' knowledge, ability and practical ability. To this end, starting from the actual needs of logistics companies, the

content of the exam will be reformed, highlighting ability assessment, and a comprehensive method combining half-term exams and process assessments will be used to assess students. In addition, corresponding assessment items and inspection points will be set up according to the curriculum knowledge points and their distribution. For courses with more scattered knowledge points and more concentrated courses, the test questions should be summarized and distinguished, and the test question types and Size and difficulty. In the post-assessment and employment process, timely summarize the previous teaching effects, and then improve the process and provide timely feedback on the previous training process to achieve the goal of continuous improvement and continuous improvement of the quality of teaching and talent training.

While monitoring the above four links and making targeted improvements, the entire training process is cycled to form a dual "closed-loop" quality control and feedback mechanism for each link and the entire process of talent training. The overall quality management of logistics personnel training and continuous cycle improvement system is conducted based on the processes mentioned above.

3.2. Analysis of the Relationship between Each Procerss in the Training System

The above analysis of each link and content in the e-commerce logistics professional talent training system clarifies the main work of each link and the improvement of different work. The following will analyze the relationship between the various links in the e-commerce logistics professional training system in order to understand the relationship between the various parts of the training system from the overall perspective of the system, and then optimize and improve the system.

The various parts of the culture system support each other. The selection of talents and the formulation of training programs are the beginning of the training system and the input link of the entire system, which determines the quality of talent output. In the process of talent selection, attention should be paid to the interest of candidates, scientific and reasonable selection, which is an important work before entering the training process; post-evaluation and employment links are the inspections and retrospective analysis of the quality of training, and the corresponding evaluation data and experience accumulation should be Selection and training program links and training process links. At this point, it needs to be mentioned that the motivation and foundation of the entire system is a good team of teachers. Teachers and incentive mechanisms provide important support for the logistics talent training system. A reasonable and appropriate incentive mechanism plays an important role in stimulating the vitality of the teaching team and improving the quality of teaching. Therefore, the motivation of the teaching team is an important content of the entire talent training system and should be included in the construction of the talent training system. On this basis, the establishment of a team of teachers with educational feelings, academic standards and teaching skills will provide an important foundation and good conditions for the improvement of the logistics talent training system.

4. Conclusion and Discussion

In view of the deviation between the current logistics management talent training model and the market's demand for logistics talents, this study proposes a PDCA-based continuous quality improvement method to construct and improve the e-commerce logistics professional training model and analyze logistics talents in detail. The specific conditions of the PDCA cycle improvement system and its various links and contents in the training process, as well as the contents and methods of improvement. The study clearly pointed out that the logistics talent training system should also pay attention to the construction of all links in the training system. In addition, it is necessary to continuously improve all links and the whole of the training

system, and the entire training process should also be carried out in the post-training evaluation and employment links. This study will provide basic and pragmatic theoretical guidance for the improvement of logistics talent training mode. In addition, this research also pointed out that the talent training model should incorporate teacher incentives into the training system, pay full attention to the incentives for the teaching team and use this as a basis to drive the entire training system to form endogenous motivation and external competitiveness.

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