Research on Precise Training Mode of Intelligent Logistics Talents in Higher Vocational Colleges Based on Big Data Analysis

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Abstract. With the rapid development of logistics industry, the demand for logistics talents is also increasing. Logistics education in higher vocational colleges plays an important role in training logistics talents. However, there are still some deficiencies in the training mode of logistics talents in higher vocational colleges. Therefore, This paper introduces a refined training framework for developing skilled logistics professionals in higher vocational education, utilizing big data analytics. Through big data analysis of the logistics industry, we can determine the demand type and quantity of logistics talents, and design an accurate training program according to the demand type and quantity. Through the analysis of big data and the research of precise training mode, this paper provides a new idea for the training of logistics talents in higher vocational colleges.

Keywords: big data analysis; higher vocational college; intelligent logistics talents;precise training

1. Introduction

With the continuous application of AI technology, blockchain technology, big data technology, digital twin technology, intelligent Internet of Things technology and other new technologies in the modern logistics industry, intelligent logistics, intelligent logistics, unmanned logistics has become the main development direction of the future logistics industry, which leads to the constant change of personnel requirements in logistics enterprises, logistics enterprises in order to adapt to the changes brought by new technology, To gain the competitive advantage in the industry, a large number of logistics talents with new technology wisdom are needed to fill new positions, so as to enhance the core competitiveness of enterprises. By using big data technology, we can deeply understand, under the influence of emerging technologies, this research evaluates and forecasts the workforce requirements within the intelligent logistics sector, thereby enhancing the precision in crafting educational strategies for cultivating logistics expertise in higher vocational institutions, and effectively develop talent training programs, courses and skills training, the goal is to refine the process of nurturing intel-

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ligent logistics professionals in higher vocational colleges with targeted, data-driven educational methodologies. To help intelligent logistics enterprises have a skilled, efficient and professional logistics technical skills team in real time.Hence, employing a big data-driven, tailored training approach for intelligent logistics professionals in higher vocational institutions emerges as a potent solution to meet the industry's talent demands while addressing the challenge of accurately preparing these specialists for the workforce. Next, this paper will mainly explore the basic ideas, theoretical models, detailed processes, by leveraging big data analysis, the design of curricula and implementation of other educational strategies will enhance the precision with which intelligent logistics professionals are trained within higher vocational colleges.

2. The significance of precise training of intelligent logistics talents in higher vocational colleges supported by big data

Effectively promote the application of smart logistics technology and update iteration

The introduction and execution of a sophisticated training framework for intelligent logistics experts in higher vocational schools, underpinned by big data analytics, will facilitate the enhancement, practical application, and continual evolution of both present and upcoming intelligent logistics technologies. First of all, big data technology can provide support in the precise training mode of smart logistics talents, develop a comprehensive talent capability assessment model utilizing big data analysis to enable ongoing monitoring and evaluation of the practical skills of intelligent logistics professionals throughout their training.so as to achieve a more efficient and accurate training of smart logistics talents. Secondly, by utilizing this technology, it can effectively use big data analysis to adjust students' courses, comprehensively control students' course dynamics, learn professional knowledge of smart logistics in a more accurate training mode, realize the automatic control of smart logistics technology and realize the real-time and effective matching between enterprise positions and students' learning skills, so as to improve the pertinacity and effectiveness of learning[1-5].

It is helpful to reduce the human resource cost of intelligent logistics personnel training

Leveraging big data analytics, the specialized training approach for intelligent logistics professionals in higher vocational education can significantly enhance both the precision and effectiveness of the training process.The academic and vocational competencies of intelligent logistics experts within tertiary technical institutes, so as to achieve the purpose of saving training time, saving labor, improving students' adaptability to the post, and helping to reduce the human resources cost of intelligent logistics talents training in enterprises. At the same time, through big data analysis, a more refined allocation and allocation of teaching resources can be realized to avoid the waste of teaching resources caused by unbalanced strategies adopted by the faculty and the school, thus saving more energy and resources.

It will help promote social and economic development more effectively

Intelligent logistics will be an important support for the development of social economy in the future, The implementation of a data-driven, targeted training framework for logistics professionals in higher education institutions will facilitate the more efficient development of exceptional personnel for the smart logistics sector, which can better meet the social demand for intelligent logistics talents, promote the development of intelligent logistics technology, so as to promote the comprehensive progress of social economy.

It is helpful to promote the continuous improvement of the school talent training system

By employing big data analysis, the tailored training approach for intelligent logistics professionals at vocational colleges enables institutions to deliver more targeted educational programs, curriculum design, skills training and other teaching contents, training standards, teaching methods and teaching methods for cultivating high-tech talents that meet the post needs of intelligent logistics enterprises in the future. So as to effectively improve the quality of teaching, students' adaptability to the post and employment competitiveness; Further promote the development of smart logistics enterprises and the continuous improvement of the school talent training system.

3. System structure of precise training mode for intelligent logistics talents in higher vocational colleges based on big data analysis

Utilizing big data analytics, the structured framework for precision training of intelligent logistics experts in tertiary vocational education consists of three interlinked subsystems:enterprise post demand management system, teaching management system and student management system. The three subsystems carry out real-time big data analysis based on the four elements of students, teachers, schools and enterprises, so that the job skills demand of smart logistics enterprises can be matched and updated in real time with the talent training program, curriculum system and teaching system of schools, so as to maximize the consistency between real-time student skills training and enterprise development, reduce the time and cost of pre-job training for enterprises,This approach also enhances the job market competitiveness of students. Figure 1. Framework diagram illustrating the precision training system for logistics professionals in higher vocational education, driven by big data analysis.

Enterprise post demand management system

Enterprise post demand management system is a data forecasting and analysis system that predicts the number of post demands, post technical requirements, post practitioners' comprehensive literacy requirements of intelligent logistics enterprises in the future through big data analysis. Through this system, it can provide the training requirements of enterprise post talents in skills, comprehensive literacy and other aspects to logistics management majors of higher vocational colleges in real time. Thus, it can

guide the formulation and revision of personnel training program, curriculum system and teaching system of logistics management major in higher vocational colleges.

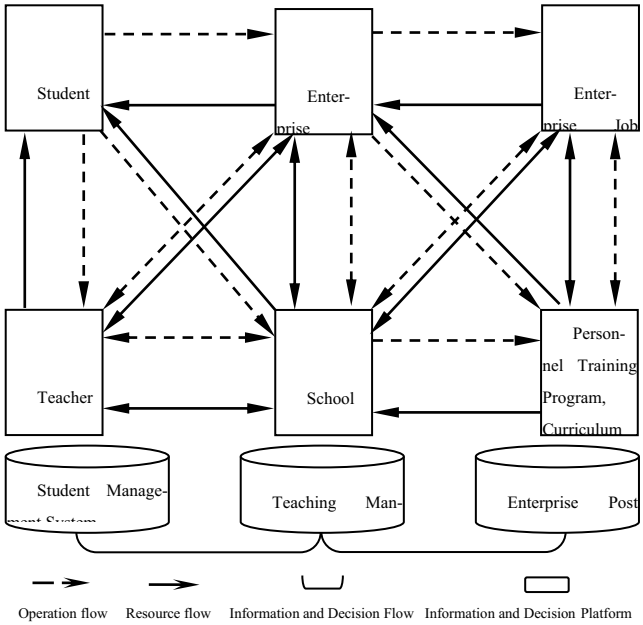

Figure 1, Framework diagram illustrating the precision training system for logistics professionals in higher vocational education, driven by big data analysis.

Teaching management system

The teaching management system is to obtain the forecast information of the post skill demand of smart logistics enterprises by connecting with the enterprise post demand management system, carry out real-time planning and revision of the personnel training program, curriculum system and teaching system, and combine the student management system to carry out teaching management, so as to cultivate professional technical talents who can adapt to the future post technical demand of smart logistics enterprises. Ensure that the skills and knowledge students learn at school meet the requirements of future job skills, so that learning becomes more effective, students' employment competitiveness is stronger, and enterprises' human resources cost is less.

Student management system

The student management system is connected with the teaching management system to realize the students' future smart logistics enterprise post skills training, students can query their own skills learning results, choose personalized training programs and courses; At the same time, through the connection of the student management system with the enterprise's job demand management system, students can inquire the job demand information of the smart logistics enterprise in the future, understand the job

skill requirements, salary, promotion path and other information to plan their career and learning plan, so as to improve their learning efficiency and comprehensive quality, and achieve their life goals.

4. The application of big data analysis technology in the training of intelligent logistics talents in higher vocational colleges

Big data analysis under industrial convergence

With the rapid development of intelligent Internet of Things technology, AI technology, digital twin technology and other new technologies, the information integration of all walks of life is getting higher and higher. Big data analysis technology can effectively and reasonably use the information of industrial integration, accurately determine the demand trend of intelligent logistics talents in higher vocational colleges, and help schools to train talents to respond to the changes of logistics enterprises and employees in real time and flexibly. Big data analysis can cross industries and enterprises. We can dig into the commonalities and advantages of the training of intelligent logistics talents in higher vocational colleges from different industries and different enterprises, and judge the skills and characteristics required by intelligent logistics technology more comprehensively and accurately[6-10].

Big data analysis in an innovative environment

More and more logistics enterprises through technological innovation and operation mode innovation to obtain the development power of enterprises, so as to enhance the core competitiveness of enterprises. Big data analysis can analyze the situation of smart logistics practitioners and enterprises in a more detailed way, help find the future development direction of smart logistics industry, accurately locate the talents and skills suitable for the development of smart logistics industry in the future, and better provide strong help for higher vocational colleges to train high-tech talents suitable for the post needs of smart logistics enterprises in the future.

Big data analysis under the cooperation of university and enterprise

Under the school-enterprise collaborative training mode, big data analysis technology can effectively excavate the skills, qualities and development trend of school students, and more pertinently develop the curriculum system, teaching method, A tailored skill enhancement and evaluation strategy aimed at nurturing logistics experts in vocational colleges, which aligns with the evolving requirements of future smart logistics industries. Through more real enterprise post skills training, Help smart logistics enterprises to gain more advantages in the industry and market competition.

Promote the application of VR technology in the training of intelligent logistics talents in higher vocational colleges

VR technology can effectively promote the proficiency and mastery of skills in the teaching and training of intelligent logistics courses in higher vocational colleges. Big data analysis technology can realize more precise and personalized course customization and practical training teaching in this process, so that the personalized learning of students can be further accurate to the skill points and knowledge points, provide timely and effective feedback for the system data, realize precise skill learning, By advancing the application of smart logistics skill development within vocational colleges, we can enhance the relevance and efficiency of educational outcomes.

5. Conclusion

Leveraging big data analysis, the targeted educational methodology for logistics specialists within technical colleges facilitates comprehensive analysis, deeply exploring the preparation of such professionals through the lens of industry synergy, innovation environment, school-enterprise collaboration, virtual simulation and so on, accurately analyze the optimization mode of intelligent logistics talent training in higher vocational colleges, and provide accurate training paths and detailed suggestions to schools and enterprises. So as to effectively stimulate the learning potential of students, improve the training quality of smart logistics skills, and promote the development of smart logistics industry. This study has examined the specialized educational framework for nurturing logistics experts in higher vocational institutions, utilizing big data analytics as the core methodology,but with the upgrading of big data analysis technology, Further investigation remains imperative for the meticulous preparation of logistics professionals within higher vocational education settings, which can further provide a new research perspective in this field in the future. For example, there is room to expand research on the cultivation of logistics experts in technical colleges, transitioning from standardized education towards more individualized training approaches, from large-scale skills training to precision training, and carry out talent image simulation, so as to more accurately judge the skill quality and accurately customize the high-tech training program, further improve the training quality and employment competitiveness.

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