

Research on countermeasures for cultivating supply chain management talents in Zhejiang enterprises in the age of digitization

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Abstract. With the innovation and development of modern supply chain rising to the height of national strategy, the modernization and upgrading of supply chain of Zhejiang enterprises is becoming an important engine of Zhejiang's economic development, and it is also a necessary way for enterprises to shape their core competitiveness and realize high-quality development. Therefore, the demand for high-quality talents in supply chain management is increasing day by day. From the perspective of enterprises on the demand side of talents, the thesis proposes that there are still many problems in the cultivation of supply chain management talents in Zhejiang enterprises, and it is necessary to further emancipate the mind, innovate the mechanism, and systematically reshape the enterprise supply chain management talents cultivation planning, cultivation content and cultivation mode, so as to build up a new system of cultivation of supply chain management talents for Zhejiang enterprises in the context of digitalization era.

Keywords. Digitalization, Zhejiang enterprises, supply chain management talents, cultivation countermeasures.

1. Introduction

The report of the 20th Party Congress proposes that efforts should be made to improve the resilience and security level of the industrial supply chain. Supply chain is the lifeline of enterprises, and it is an important foundation to help the national industry develop in high quality, guarantee the stable operation of the real economy, and build a new development pattern. Martin Christopher, a British supply chain management expert, proposed that the competition in the 21st century is no longer the competition between enterprises and enterprises, but the competition between supply chains and supply chains [1]. In the era of digitalization, digital information technology has penetrated into all aspects of the industrial supply chain, and is an important factor in driving the change of supply chain management. At present, the whole face enhancement of supply chain modernization and development level rises as one of the important national strategies, Zhejiang Province, as a province of industrial clusters and digital economy, the supply chain modernization and informatization upgrading of Zhejiang enterprises has become more and more an important engine of Zhejiang's economic development. In order to adapt to the supply chain innovation and development in the digital era, the demand of enterprises for composite supply chain management talents is also expanding. Supply chain management talents are different from traditional logistics talents, and their professional, digital and composite characteristics are more significant. 2020 February, supply chain manager officially as an emerging occupation, was included in the national occupation classification directory, the occupation is defined as the ability to use supply chain management methods, tools and technologies, engaged in product design, Purchasing, production, sales, service and other whole process synergies to control the cost of the whole supply chain system and improve the accuracy, security and customer service level. In the "Employment Prosperity Analysis of Supply Chain Manager" released by the Ministry of Human Resources and Social Security in 2021 Report", it is pointed out that in the next five years, the total demand for supply chain managers in China will reach about 6 million [2]. The supply chain management talent gap will become an important factor affecting the modernization of enterprise supply chains and maintaining security and stability. Therefore, in the digital era, promoting the quality and efficiency of supply chain management personnel training in Zhejiang enterprises has become a key way to modernize supply chain innovation and development in Zhejiang Province.

2. Problems of supply chain management personnel training in Zhejiang enterprises

2.1. Normative problems

Supply chain management is the central function of enterprise operation, throughout the whole process of enterprise operation and management, sound and standardized modern supply chain management personnel training system is an important foundation for talent training. At present, Zhejiang enterprises for modern supply chain management personnel training system construction is in the initial stage, has not yet formed a perfect supply chain management personnel training top-level design, in the personnel training program, training course system and personnel evaluation standards and other aspects of the degree of specialization also needs to be improved. At the same time, most of the academic research on the cultivation of supply chain management talents is from the perspective of universities, and the research results on the construction of enterprise supply chain talents are relatively thin [3], which is difficult to provide theoretical guidance and support for the systematic development of supply chain management education and training work of enterprises, resulting in the lack of maturity and standardization of the enterprise supply chain management talents cultivation mode.

2.2. Balance problem

Enterprises of different sizes, industries and regions in Zhejiang Province have large gaps in supply chain management



talent training, and supply chain management talent resources are unevenly distributed and underdeveloped. The non-equilibrium of supply chain management talents of Zhejiang enterprises is significant, which limits the overall innovative development of supply chain of Zhejiang enterprises to a certain extent. Zhejiang Province, the number of small and medium-sized enterprises, some of which are more crude supply chain management, supply chain digital transformation is generally weaker, the demand for composite supply chain management talent reserves is insufficient, and more likely to be lost. Although the current small and medium-sized enterprises have begun to pay attention to enterprise supply chain management and conscious introduction of supply chain management professionals, but for job seekers, they are often more willing to choose a larger scale, better location of the enterprise [4], resulting in some of the small and medium-sized micro-enterprises suffered from supply chain management personnel, "cannot be recruited, not good" problem.

2.3. Adaptability problem

In the digital era, digital information technology represented by big data, Internet of Things, blockchain, 5G, artificial intelligence and other digital information technology has gradually penetrated into all aspects of supply chain management, supply chain top-level design, model structure, operational content, digital foundation have undergone great changes, and rapid development in the direction of intelligence. As a result, this has also driven the large demand of enterprises for those with all-round and comprehensive supply chain management talents. However, at the current stage, the quality of supply chain management talents cultivated by enterprises is often difficult to meet the needs of their own supply chain digitization and intelligent development and upgrading, and there is a large gap between the supply chain planning, supply chain operation and supply chain technology and other middle- and high-end composite supply chain management talents required by the intelligent supply chain.

2.4. Security issues

At the level of enterprise supply chain innovation and application, the government management services are still relatively traditional, the construction of supply chain unified management mechanism is not strong enough, the policy articulation and matching needs to be further improved [5], these factors also limit the effectiveness of enterprise supply chain management personnel training to a certain extent. Enterprise internal cross-sectoral coordination mechanism is not perfect, the degree of attention to the training of supply chain management personnel needs to be further improved, and the relevant resources are less and less targeted. The development of industry associations is relatively lagging behind, unable to adapt to the transformation needs of enterprise supply chain intelligence [6], and the matching degree and accuracy of service measures for enterprise supply chain management personnel training need to be further improved.

3. Innovative development ideas and countermeasures for supply chain management talent cultivation in Zhejiang enterprises

In the digital era, Zhejiang enterprises have increasingly strong demand for supply chain management personnel, enterprises in the supply chain management personnel training to further emancipate the mind, innovation mechanism, strengthen the supply chain management personnel training, so as to build up a new mode of supply chain management personnel cultivation of Zhejiang enterprises in the context of the digital era (see Figure 1).

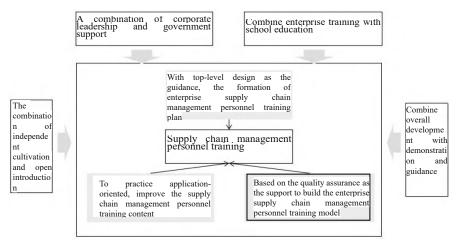


Figure 1. Supply Chain Management Talent Training Innovation Logic

Supply chain management talent cultivation innovation work to "start a good game", we must cultivate excellent soil. First, we should properly deal with two groups of relationships, one is the relationship between enterprises and the government, not only to respect the main position of enterprises, but also to give full play to the government's planning and guidance, financial support, public services, coordination and organization of policy effectiveness. The second is the relationship between enterprises and schools, we must deepen the school-enterprise cooperation, work-learning combination of talent cultivation mode, and promote the depth of cooperation between the two sides in the field of supply



chain management research, supply chain technology development, improvement of talent cultivation standards, sharing of faculty, sharing of practical training facilities, and so on.

Secondly, we should flexibly use two kinds of strategies, one is to insist on the strategy of combining integrated development and demonstration, not only to promote the overall development of supply chain management talents training quality of Zhejiang enterprises in accordance with the overall requirements of modern supply chain innovation and development in Zhejiang Province, but also to encourage the excellent enterprises to increase the innovation investment, and form a batch of replicable and popularizable experience models. Second, adhere to the strategy of combining independent cultivation and open introduction, take independent cultivation as the root, based on the actual situation of enterprises themselves, and increase the cultivation of existing supply chain management talents of the enterprise; take open introduction as the focus, in addition to the supply chain management talents as the important direction of talent introduction, we should also take the initiative to learn and introduce the advanced and scientific concepts of supply chain management talent cultivation.

Supply chain management talent training innovation work to "results", must be implemented systematic program.

3.1. Take top-level design as a leader, form enterprise supply chain management talent cultivation planning

Formulate enterprise supply chain management talent training strategic planning. Supply chain management talent cultivation is a systematic and global work related to the safety and stability of enterprise operation. With the deepening of digital change in Zhejiang enterprises, the traditional talent cultivation concept has been unable to support the modern development and innovation of enterprise supply chain. Therefore, enterprises need to strengthen the degree of importance of supply chain management talent training work, learn from the industry's excellent experience and concepts, combined with the actual development of their own, top-level design and overall planning, and according to the enterprise's short-term, medium-term and long-term strategic vision to determine their own supply chain management talent team construction goals, so as to formulate a targeted strategy for sustainable supply chain management talent development. At the same time, according to the strategic direction of supply chain management talents, enterprises should condense clear training objectives, training system, training process, and form a specific program of supply chain management talents resources development, and finally realize the effective improvement of the quality of enterprise supply chain management talents training.

Build a multi-dimensional collaborative cultivation mechanism for supply chain management talents. Realize the cooperation between enterprises, government and universities in supply chain management talent cultivation, industryuniversity-research synergy, etc., and promote the common construction and promotion and sharing of talent development resources, and integrate the talent cultivation ecosystem. On the one hand, it is necessary to strengthen the close contact between enterprises and the government in the field of supply chain management talent cultivation. Enterprises should fully understand the deep connection between supply chain management talent training and the modernization and development of supply chain in Zhejiang Province, based on the main responsibility and main business, actively undertake social responsibility, and take the policy guidance as the lead to integrate supply chain management talent training into the general situation of supply chain modernization and development of industry in Zhejiang Province. On the other hand, it is necessary to optimize the cooperation mechanism between enterprises and universities in digital supply chain management personnel training, give full play to the demand-oriented role of enterprises, take the initiative to set up a platform for cooperation between universities and enterprises, and through participation in the development of personnel training programs and provide practice teaching base and other initiatives, the enterprise supply chain quality development needs to the university supply chain personnel training theory and practice teaching system. Actively explore to create a platform for supply chain management talents to study and research, and carry out in-depth industry-academia integration, so as to effectively crack the problem of "two skins" between talents training in colleges and universities and industrial demand of enterprises.

3.2. Improve the content of enterprise supply chain management talents training with practical application as the guide

Give play to the leading role of excellent enterprises in supply chain management personnel training. In recent years, Zhejiang supply chain innovation and development has made remarkable progress, such as Alibaba, Mutual Industry China University, Geely Holding and other leading backbone enterprises have grown to be the best in the field of global intelligent supply chain with comprehensive competitiveness. Meanwhile, a large number of supply chain innovation benchmark enterprises have emerged in different fields such as Internet e-commerce, commodity trade, traditional manufacturing, cross-border logistics and financial services. In the supply of supply chain management talents exceeds the demand, excellent backbone enterprises of supply chain in various fields in Zhejiang should be encouraged to base on the future development demand of supply chain, give full play to their characteristic resource advantages and professional service ability, actively lead or deeply participate in the supply chain management talents ecosystem organized by the government, enterprises, colleges and universities, and industry associations, build the demonstration pilot of talents cultivation, and innovate the supply chain management talents' skills training, competitions and appraisals, etc., so as to overall improve the supply chain management talents' competitiveness. To improve the effectiveness of supply chain management talents training by system mechanism, to stimulate the excellent enterprises to drive the leading role of supply chain



management talents training in the whole province, so as to form a batch of replicable and popularized supply chain management talents training cases, and to contribute to the Zhejiang experience for the cultivation of supply chain management talents in our country.

Improve the practical education mechanism of enterprise supply chain management talents. First, strengthen on-the-job practical training, and systematically train talents in practical positions through supply chain and digital professional knowledge training, vocational skills training and rotational exercise. In particular, we should focus on the use of supply chain innovation and change projects to promote supply chain management positions in the project operation and development process to get all-round improvement. Secondly, we insist on both external attraction and internal training. Professional, digital, composite-oriented enterprise supply chain management talent team construction, internal training as the main means to build enterprise supply chain management talent echelon. Targeting the introduction of supply chain management talents who can participate in or even lead the innovation and change of enterprise supply chain, empowering the modernization and development of enterprise supply chain and promoting the orderly flow of supply chain management talents in Zhejiang enterprises. Thirdly, we will innovate the talent cooperation mode, establish the talent sharing thinking of "not seeking all, but seeking to use", strengthen the talent cooperation with external units, and comprehensively and flexibly utilize the wisdom-introducing methods such as expert consultation, dual-employment tutor, external consultant, talent alliance, and so on, to promote the innovative development of supply chain management.

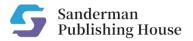
3.3. Build enterprise supply chain management talent training mode with the support of quality assurance

Enhance the standardization level of enterprise supply chain management talents training. Zhejiang enterprises need to gradually improve the standardized assessment and adaptation mechanism of supply chain management talents in the talent training process. First, we should accurately grasp the new demand for supply chain management talents in the digital era. Different enterprises in promoting the digital transformation of the supply chain, the focus of the demand for supply chain management personnel is also different, therefore, it is necessary to adhere to the unity of universality and specificity, so that the construction of supply chain management personnel and enterprise supply chain digital transformation change resonate with the same frequency, which is the prerequisite basis for improving the standardization of supply chain management personnel. Secondly, we will gradually build supply chain management job competency model, carry out supply chain management talent inventory, summarize the basic competency qualities that each supply chain management position should have, refine the differentiated competency requirements of different positions, and form a scientific supply chain management talent competency model as an important basis for supply chain management positions to be "suitable for each position". "It forms a scientific supply chain management talent competency model, which serves as an important basis for supply chain management positions, thus establishing a full-member, full-career talent cultivation mechanism with the qualification system as the traction, and promoting the continuous optimization of the supply chain management talent configuration of the enterprise.

Strengthen the construction of quality assurance system for supply chain management personnel training. Explore the establishment of a three-dimensional talent education and training guarantee mechanism to enhance the effectiveness of supply chain management personnel training. Firstly, to enhance the professional level of enterprise supply chain management personnel training, set up a professional supply chain management personnel training faculty team, create an all-round training course library, fully integrate excellent teachers from inside and outside the enterprise to participate in supply chain management personnel training, and carry out a whole-process evaluation of the training instruction work, and make timely adjustments according to the needs of the participants and the enterprise's talent goals to ensure the quality of the training. The second is to enhance the level of refinement of enterprise supply chain management talent training, improve the degree of standardization, scientification and digitization of training management work, establish enterprise supply chain management talent development files, timely understanding and mastering of the actual situation of supply chain management talent training, continuous tracking of training implementation, and comprehensively improve the quality of talent training. Thirdly, to enhance the level of institutionalization of supply chain management talent training, in accordance with the principle of hierarchical classification, according to the needs of training, institutionalization of training content, to help new employees quickly integrate, to promote the continuous improvement of old employees, and to require unqualified employees to return to the furnace to re-engineer, and to create a sustainable iterative learning supply chain management talent team.

4. Conclusion

Zhejiang Province vigorously promote the development of supply chain modernization for the enterprise supply chain management talent team construction provides a strategic lead and a good opportunity to build a high-quality supply chain management personnel training system is to reshape the core competitiveness of enterprises, maintaining industrial security is an important factor. Currently, there is still much room for improvement in supply chain management personnel training for enterprises in Zhejiang, and enterprises need to identify the target positioning of personnel training, increase human capital investment, build a high-quality supply chain management personnel team according to the specific content of their own supply chain management operations and industry characteristics, and make greater contributions to the construction of modern supply chain system in Zhejiang.



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