Analysis of Influencing Factors of Logistics Center Location Based on Comprehensive Quality Training

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Abstract: As an important part of the logistics system, the location of logistics parks and logistics centers will directly affect the logistics cost and transport efficiency. The research on the influencing factors of logistics center location is not only conducive to the construction of a reasonable logistics transportation network, but also can quickly respond to market demand. Logistics transportation, as an accelerator to promote the development of national economy, has a strong supporting and promoting effect on China's economic and social development. Logistics is a service industry, which pursues customer satisfaction. Any problem in any link of logistics will affect the quality of logistics service and reduce customer satisfaction. Based on the cultivation of comprehensive quality and the application of modern logistics and urban planning principles, this paper makes a systematic analysis and research on the principles and influencing factors of logistics center location. It provides certain decision-making basis for scientifically and reasonably determining the location of city logistics center nodes and constructing a reasonable logistics transportation network.

1. Introduction

In people's daily life, logistics has been in various forms, and affects our lives [1]. Through logistics operation, products produced by people can be exchanged in the market and reflect their product value. China has gradually realized the importance of logistics in promoting economic development, improving the investment environment and enhancing the competitiveness of regional economy and the whole industry and Commerce in the domestic and foreign market [2]. Logistics transportation, as an accelerator to promote the development of national economy, has a strong supporting and promoting effect on China's economic and social development. Logistics center location refers to the planning process of selecting an address to set up a logistics center in an economic region with several supply and demand networks [3]. Logistics is a service industry, which pursues customer satisfaction. Any problem in any link of logistics will affect the quality of logistics service and reduce customer satisfaction [4]. According to the market demand, timely adjustment of professional training objectives, improvement of teaching, and practical improvement of the comprehensive quality and practical ability of logistics management major students have become the top priority of the undergraduate teaching reform of logistics management major in colleges and universities [5].

The logistics center has buildings, structures and equipment. If the site is improperly selected, it will have a great negative impact and pay the price. Soon after the supply chain management was produced, it was recognized by relevant practitioners and developed rapidly, which effectively promoted social production and changed people's daily lives [6]. Since the location of the logistics center node has an obvious impact on the network, the merits of its location will directly have a significant impact on the overall efficiency of the logistics system. Therefore, research on the influencing factors of logistics center location is not only conducive to the construction of a reasonable logistics and transportation network, but also can quickly respond to market demand. A qualified logistics management talent requires basic qualifications not only to have comprehensive and solid professional knowledge, but also to fully utilize the internal resources of equipment, technology and manpower to meet customer needs [7]. Modern logistics integrates its own development into enterprise production and customer life, linking enterprises and customers, and
has formed the current supply chain logistics [8]. Based on the comprehensive quality training, this paper analyzes the influencing factors affecting the logistics center nodes, and provides a certain decision-making basis for scientifically and rationally determining the location of urban logistics center nodes and constructing a reasonable logistics transportation network.

2. Notices in Location Selection of Logistics Center

The teaching purpose of higher vocational colleges is to make the knowledge learnt by students better apply to practical work, but at present, the teaching content of many higher vocational colleges is not closely related to the actual work. Because the logistics industry is a cross-industry, cross-sectoral composite industry, and it is also labor-intensive and technology-intensive industries. Therefore, the development of logistics industry requires not only senior logistics management personnel, but also a large number of logistics execution and operation personnel. Logistics center comes into being with the development of social production and the refinement of social division of labor. It is an important infrastructure of logistics system [9]. The basic mode of supply chain is supply chain integration. How to realize and improve supply chain integration management is the focus of many enterprises. The location of the logistics center is determined to be in the urban area, the near suburb or the far suburb. The construction scale, construction cost, freight and other logistics costs of the auxiliary facilities for future logistics activities are different. The lowest total cost should be taken as the economic principle for the location of the logistics center.

For products, it is also necessary to locate the product mode. For products with relatively large value, they are basically sold through retail. The product mode positioning is shown in Figure 1.

![Fig. 1. Product mode positioning](image)

Logistics centers in large and medium-sized cities should be located in a centralized and decentralized way. In small and medium-sized towns, because the number of logistics centers is limited and should not be too scattered, it is appropriate to choose independent lots. In the conceptual model of cloud platform model, cloud platform model entity refers to an objective object capable of engaging in cloud platform model, which can be enterprises, banks, shops, government agencies or individuals. The electronic market refers to the place where cloud platform model entities exchange goods and services. It has various business participants who use various communication devices to connect into a unified whole through the network. Fig. 2 is a conceptual model of cloud platform model and city logistics system.

![Fig. 2. Cloud platform model and conceptual model of urban logistics system](image)
The teaching of logistics customer service courses in higher vocational colleges has been limited to the internal classrooms of the school. The traditional teaching mode is used. The teachers are mainly speaking and the students are listening. The teaching content is mixed and complicated, and the actual connection with the students is not close enough. When determining the supply chain links and structure, it is necessary to take into account some uncertain factors that may affect the supply chain in the next few years or even longer, because once the supply chain is determined, it is generally desirable to make adjustments in the short term. Higher cost. It is generally difficult for students to participate in it, which makes it difficult for them to have a perceptual knowledge of the work, especially the lack of professional practical ability and emotional accomplishment. This teaching mode has gradually become incompatible with the logistics customer service course. When a company determines the link and structure of the supply chain, it needs to consider the characteristics of product production location, production capacity, product storage, transportation, use of information system types and other aspects from a strategic perspective. When selecting a location for a logistics center, it should be ensured that customers can put forward logistics requirements to the logistics center at any time and can obtain fast and satisfactory services.

3. Influencing factors of logistics center location

3.1. Environmental Factor

In the process of location selection of logistics center, the main meteorological conditions considered include temperature, wind power, precipitation, frost-free period, frozen soil depth, annual average evaporation and other indicators. The location of the logistics center should be far away from river basins prone to flooding and areas where groundwater overflows. There is no special department to supervise the quality of fresh agricultural products in online sales. Once problems occur, it is difficult to trace them back. In order to better study the influence of price competition on various factors, the demonstration part adopts the idea of normalization in the degree of price competition. As shown in Table 1.

<table>
<thead>
<tr>
<th>Degree of decrease(%)</th>
<th>0-25</th>
<th>25-50</th>
<th>50-75</th>
</tr>
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<tbody>
<tr>
<td>Normalized value</td>
<td>0.25</td>
<td>0.5</td>
<td>0.75</td>
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</table>

The preferential logistics industry policy in the area where the logistics center is located will have an important impact on the economic benefits of logistics enterprises. The sufficient quantity and high quality labor conditions are also one of the factors considered in the location selection of the logistics center [10]. The planning of the logistics center should implement the principle of saving land and making full use of land and resources. According to market demand, universities should have a solid theoretical foundation, a high level of foreign language and a computer level. The status and role of the logistics center in this process determines its different forms. If the logistics center is close to the place where the product is produced and provides the deployment and storage services for the production enterprise, it is the logistics center for the material distribution and storage of the production enterprise. The location of the logistics center needs to consider factors such as protecting the natural environment and the human environment, and minimize the interference to urban life. For large transshipment hubs, it should be properly located away from the downtown area.

3.2. Infrastructure

Logistics centers must have convenient transportation conditions. It is best to locate near transportation hubs, such as close to ports, main road hubs, railway marshalling stations or airports. If the logistics center is between the producer and the consumer and provides logistics services for the producer or the wholesaler, it is the logistics center for the manufacturer or the wholesaler of the product. Compared with the traditional direct delivery mode, joint distribution has obvious advantages in the number of vehicles used, the timeliness of distribution and the cost of distribution.
For personnel at the operational level, the demand can be met through short-term training and other means, while senior and middle-level operation and management personnel cannot be trained in the short term. Transfer logistics centers are mostly engaged in turnover goods that are inverted, transferred or stored for a short period of time, and most of them use multi-modal transportation. Therefore, they should generally be set up in areas with convenient transportation in urban fringe areas to facilitate transfer and reduce short-distance transportation. According to the actual situation, among the limited available locations, a more reasonable and feasible location is determined by qualitative and quantitative analysis methods.

4. Conclusion

As the core link in the supply chain system, the logistics center plays a key role in connecting the upper and lower links. As a key component of the logistics system, the location of modern logistics center nodes will have an important impact on logistics cost and operation efficiency. With the development of economy and the continuous changes of market competition forms, the competition subjects in the market need not only to enhance their own competitiveness, but also to enhance the competitiveness of their supply chains. Compared with the traditional teaching mode, the mode of integrating students' comprehensive quality into the teaching process makes teachers have to have new teaching ideas and be familiar with and clear about students' post requirements. For the location of logistics center, market demand, geographical location, joint distribution and other factors should be considered. By sorting the importance of the factors affecting the location of logistics centers, the relative importance of each factor can be determined to a certain extent. From the perspective of comprehensive quality training, this paper studies the influencing factors of logistics center location, avoids the problem of isolating logistics center in traditional logistics center location research, and makes the identification results of influencing factors of logistics center location closer to reality, which has certain practical significance.

References

[9] Gutjahr W J, Dzubur N. Bi-objective bilevel optimization of distribution center locations considering user equilibria[J]. Transportation Research Part E Logistics and Transportation Review,